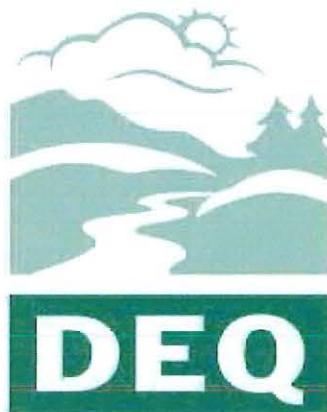


**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 11/18/1999**



**State of Oregon
Department of
Environmental
Quality**

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Revised A G E N D A

ENVIRONMENTAL QUALITY COMMISSION MEETING

November 18-19, 1999
DEQ Conference Room 3A
811 S. W. Sixth Avenue
Portland, Oregon

Notes: Because of the uncertain length of time needed for each agenda item, the Commission may deal with any item at any time in the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if agreeable with participants. Anyone wishing to listen to the discussion on any item should arrive at the beginning of the meeting to avoid missing the item of interest.

Public Forum: The Commission will break the meeting at approximately 11:30 a.m. for the General Public Forum if there are people signed up to speak. The Public Forum is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. The public comment period has already closed for the Rule Adoption items and, in accordance with ORS 183.335(13), no comments can be presented to the Commission on those agenda items. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

Thursday, November 18
Beginning at 1:30 p.m.

Work Session: The Department will brief the Commission on Portland General Electric Company's Independent Spent Fuel Storage Installation at the Trojan Nuclear Power Plant site in Rainier. PGE requested preliminary certification of the installation under the Pollution Control Facility Tax Credit program. The preliminary application will be brought before the Commission in the first quarter of 2000.

A. Approval of Minutes

B. Approval of Tax Credits

The Environmental Quality Commission will hold an executive session at 8:00 a.m. in Room 3B. The session will EZ Drain Company v. State of Oregon, Department of Environmental Quality, Case No. 9809-06683. The executive session is to be held pursuant to ORS 192.660(1)(h). Representatives of the media will not be allowed to report on any of the deliberations during the session.

Friday, November 19
Beginning at 8:30 a.m.

C. **Informational Item:** Update on the General Air Contaminant Discharge Permits (ACDP)

D. **Action Item:** Appeal of Hearing Order Regarding Assessment of Civil Penalty in the Matter of Cascade General, Inc., Case No. HW-NWR-97-176

E. **Rule Adoption:** On-site Sewage Disposal Fees

F. **Rule Adoption:** Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-site Program

G. **Action Item:** Reopen the Permit at the Umatilla Chemical Agent Disposal Facility (UMCDF) for Modifications with Respect to the Inclusion of the Carbon Filter System as Part of the Pollution Abatement System

H. Commissioners' Reports

I. Director's Report

2:00 p.m. - Public Comment for This Agenda Item Only: UMCDF Permit Revocation Request Dated December 14, 1998 from GASP, et al

Hearings have already been held on the Rule Adoption items and the public comment period has closed. In accordance with ORS 183.335(13), no comments can be presented by any party to either the Commission or the Department on these items at any time during this meeting.

The Commission will honor outgoing Chair, Carol Whipple, before the meeting on November 18.

The Commission will have lunch at 12:00 noon on November 19. No Commission business will be discussed.

The Commission has set aside February 10-11, 2000, for their next meeting. The location has not been established.

Copies of staff reports for individual agenda items are available by contacting the Director's Office of the Department of Environmental Quality, 811 S. W. Sixth Avenue, Portland, Oregon 97204, telephone 229-5301, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

If special physical, language or other accommodations are needed for this meeting, please advise the Director's Office, (503)229-5301 (voice)/(503)229-6993 (TTY) as soon as possible but at least 48 hours in advance of the meeting.

November 9, 1999

Approved _____
Approved with Corrections X

Minutes are not final until approved by the EQC

Environmental Quality Commission Minutes of the Two Hundred and Seventy-Ninth Meeting

**September 30 – October 1, 1999
Regular Meeting**

On September 30, 1999, the Environmental Quality Commission traveled to Coos Bay, Oregon. They toured several sites in the Coos Bay area before meeting with local officials that evening. On October 1, 1999, they held their regular meeting at the Red Lion Inn, 1313 N Bayshore Drive, Coos Bay, Oregon. The following Environmental Quality Commission members were present:

Carol Whipple, Chair
Melinda Eden, Vice Chair
Tony Van Vliet, Member
Mark Reeve, Member

Also present were Larry Knudsen, Assistant Attorney General, Oregon Department of Justice (DOJ); Langdon Marsh, Director, Department of Environmental Quality (DEQ); and other staff from DEQ.

Note: The Staff reports presented at this meeting, which contain the Department's recommendations, are on file in the Office of the Director, 811 SW Sixth Avenue, Portland, Oregon 97204. Written material submitted at this meeting is made a part of the record and is on file at the above address. These written materials are incorporated in the minutes of the meeting by reference.

A. Approval of Minutes

The following corrections were made to the August 12-13, 1999, minutes: on page 4, section H, all references to the Department that are designated as "we" need to be changed to "the Department," and on page 4, the last line should read "interviews, site assessment work, and developing a programmatic *workplan*." A motion was made by Commissioner Van Vliet to adopt the minutes of the August 12-13, 1999, meeting as corrected. Vice-Chair Eden seconded the motion and it carried with four "yes" votes.

A motion was made by Commissioner Van Vliet to adopt the minutes of the August 18, 1999 meeting. It was seconded by Commissioner Reeve and carried with four "yes" votes.

B. Approval of Tax Credits

Tax credits were presented by Maggie Vandehey, tax credit coordinator.

Maggie Vandehey requested the removal of applications numbered 4928, 5004, 5156 and 5213 from consideration for certification as pollution control facilities at this time. A motion was made by Commissioner Reeve to remove applications numbered 4928, 5004, 5156 and 5213 from the approval of the applications presented in Attachment B of Agenda Item B. Commissioner Van Vliet seconded the motion and it carried with four "yes" votes.

When questioned about the difference between the Eligible Facility Cost on the work sheet and the amount brought forward as the Director's Recommendation on application number 5170, staff indicated the amount should have been \$110,163 rather than \$94,250.

Commissioner Van Vliet asked if it was possible for any grower to claim an alternative to open field burning even though they had no intention of open field burning. Staff stated that it is possible. The Department of Agriculture determines if a grass seed grower has had a history of open field burning when they review an application claiming an alternative to field burning for tax credit purposes.

Commissioner Reeve compared the return on investment in an application for approval (5250) and an application for denial (5860), and asked how return on investments within such a close range could result in such opposite results. Ms. Vandehey explained that one was a return on investment factor contrasting with the facility return on investment. The variables used in the tables to determine return on investment are the useful life of the facility and the year the facility was completed. The difference between 0 and 100% of the facility cost allocable to pollution control occurs in a narrow band. A motion was made by Commissioner Reeve to approve the tax credit applications presented in Attachment B including approval of application number 5170 in the amount of \$110,163. Commissioner Eden seconded the motion and it carried with four "yes" votes.

Maggie Vandehey requested the removal of applications numbered 5197, 5199 and 5200 from consideration for denial of certification as pollution control facilities. A motion was made by Commissioner Van Vliet to deny applications numbered 4860 and 5140. Commissioner Reeve seconded the motion and it carried with four "yes" votes.

A motion was made by Commissioner Van Vliet to transfer certificates numbered 2602 and 3084. Commissioner Eden seconded the motion and it carried with four "yes" votes.

Maggie Vandehey indicated the law was unclear about who had the authority to reject applications that were submitted to the Department beyond two years after the claimed facility was substantially complete; therefore staff presented them to the Commission for rejection. She stated that PGE confirmed that the submittal date was beyond two years of substantial completion. A motion was made by Commissioner Eden to reject applications numbered 5066 and 5067 as presented in Attachment E. Commissioner Reeve seconded the motion and it carried with four "yes" votes.

Commission action on tax credits:

| App.No. | | Cost | % Allocable | Value | Commission Action |
|--------------------------|------------------------------|--------------|-------------|--------------|---------------------|
| Attachment A – Approvals | | | | | |
| 4816 | IDT | \$ 2,252,909 | 100% | \$ 1,126,455 | Approved |
| 4928 | Willamette Industries, Inc. | \$ 730,586 | 100% | \$ 365,293 | Removed from Agenda |
| 4959 | Tidewater Barge Lines, Inc. | \$ 775,000 | 56% | \$ 217,000 | Approved |
| 4965 | Tidewater Barge Lines, Inc. | \$ 775,000 | 55% | \$ 213,125 | Approved |
| 5004 | Widmere Brothers Brewing Co. | \$ 102,442 | 100% | \$ 51,221 | Removed from Agenda |
| 5047 | Mitsubishi Silicon America | \$ 157,664 | 100% | \$ 78,832 | Approved |
| 5048 | Mitsubishi Silicon America | \$ 517,957 | 100% | \$ 258,979 | Approved |
| 5065 | PGE | \$ 70,855 | 100% | \$ 35,428 | Approved |
| 5090 | PGE | \$ 23,090 | 100% | \$ 11,545 | Approved |
| 5091 | Praegitzer Industries, Inc. | \$ 48,740 | 100% | \$ 24,370 | Approved |
| 5111 | Denton Plastics, Inc. | \$ 32,000 | 100% | \$ 16,000 | Approved |

| | | | | | |
|------|------------------------------------|------------|------|------------|-----------------------|
| 5125 | PGE | \$ 242,117 | 100% | \$ 121,059 | Approved |
| 5126 | PGE | \$ 44,045 | 100% | \$ 22,023 | Approved |
| 5127 | Merix Corporation | \$ 444,044 | 100% | \$ 222,022 | Approved |
| 5147 | Coburg Mini Storage | \$ 2,980 | 100% | \$ 1,490 | Approved |
| 5148 | Don G. Averill Trucking, Inc. | \$ 6,000 | 100% | \$ 3,000 | Approved |
| 5156 | JR Simplot Company | \$ 757,749 | 100% | \$ 378,875 | Removed from Agenda |
| 5165 | United Disposal Service, Inc. | \$ 15,672 | 100% | \$ 7,836 | Approved |
| 5168 | Jackson Oil, Inc. | \$ 31,550 | 100% | \$ 15,775 | Approved |
| 5169 | Jackson Oil, Inc. | \$ 77,735 | 100% | \$ 38,868 | Approved |
| 5170 | Miles Investment, L.L.C. | \$ 110,163 | 86% | \$ 40,528 | Approved Corrected |
| 5173 | Roger Neuschwander | \$ 5,500 | 100% | \$ 2,750 | Approved |
| 5175 | Tydan Farms | \$ 34,042 | 37% | \$ 6,298 | Approved |
| 5177 | B K & S Corporation | \$ 1,980 | 100% | \$ 990 | Approved |
| 5184 | Capitol Recycling & Disposal, Inc. | \$ 10,064 | 100% | \$ 5,032 | Approved |
| 5186 | Robert L. Secolo/Land Development | \$ 372,786 | 96% | \$ 178,937 | Approved |
| 5187 | United Disposal Service, Inc. | \$ 46,603 | 100% | \$ 23,301 | Approved |
| 5188 | Capitol Recycling & Disposal, Inc. | \$ 173,298 | 100% | \$ 86,649 | Approved |
| 5189 | Capitol Recycling & Disposal, Inc. | \$ 6,734 | 100% | \$ 3,367 | Approved |
| 5190 | Wilco Farmers | \$ 286,975 | 94% | \$ 134,878 | Approved |
| 5193 | Sherlock Oil Company | \$ 153,679 | 100% | \$ 76,840 | Approved |
| 5194 | Safeway, Inc. | \$ 20,951 | 100% | \$ 10,476 | Approved |
| 5203 | Morse Bros., Inc. | \$ 282,897 | 100% | \$ 141,448 | Approved |
| 5205 | Capitol Recycling & Disposal, Inc. | \$ 195,205 | 100% | \$ 97,603 | Approved |
| 5209 | Powell Butte Country Store, Inc. | \$ 32,133 | 100% | \$ 16,067 | Approved |
| 5211 | Capitol Recycling & Disposal, Inc. | \$ 22,815 | 100% | \$ 11,408 | Approved |
| 5213 | Magnum Properties, Inc. | \$ 10,243 | 100% | \$ 5,122 | Removed from Approval |
| 5214 | United Disposal Service, Inc. | \$ 136,669 | 100% | \$ 68,334 | Approved |
| 5215 | William C. Smith Farms, Inc. | \$ | 100% | \$ 21,754 | Approved |

| | | | | | |
|-------------------------------|------------------------------------|--------------|------|------------|---------------------|
| | | 43,508 | | | |
| 5216 | Capitol Recycling & Disposal, Inc. | \$ 4,790 | 100% | \$ 2,395 | Approved |
| 5217 | Neuschwander, L.W. | \$ 125,870 | 86% | \$ 54,124 | Approved |
| 5218 | WWDD | \$ 7,405 | 100% | \$ 3,703 | Approved |
| 5219 | United Disposal Service, Inc. | \$ 4,275 | 100% | \$ 2,138 | Approved |
| 5220 | United Disposal Service, Inc. | \$ 4,260 | 100% | \$ 2,130 | Approved |
| 5222 | Freres Lumber Company, Inc. | \$ 120,000 | 100% | \$ 60,000 | Approved |
| 5224 | Bimor Stations, Inc. | \$ 93,262 | 86% | \$ 40,103 | Approved |
| 5225 | 4 B Farms, Inc. | \$ 105,452 | 63% | \$ 33,217 | Approved |
| 5226 | Magnum Properties, Inc | \$ 16,595 | 100% | \$ 8,298 | Approved |
| 5234 | Bob Weber, Inc. | \$ 2,895 | 100% | \$ 1,448 | Approved |
| 5235 | Curtis Johnston | \$ 92,000 | 100% | \$ 46,000 | Approved |
| 5237 | Capitol Recycling & Disposal, Inc. | \$ 15,724 | 100% | \$ 7,862 | Approved |
| 5238 | Capitol Recycling & Disposal, Inc. | \$ 44,352 | 100% | \$ 22,176 | Approved |
| 5239 | Capitol Recycling & Disposal, Inc. | \$ 39,897 | 100% | \$ 19,949 | Approved |
| 5241 | Carson Oil Company | \$ 268,362 | 83% | \$ 111,370 | Approved |
| 5244 | TOC, Inc. | \$ 1,712 | 100% | \$ 856 | Approved |
| 5245 | Courtesy Automotive, Inc | \$ 2,495 | 100% | \$ 1,248 | Approved |
| 5247 | Jubitz Corporation | \$ 449,953 | 90% | \$ 202,479 | Approved |
| 5250 | United Disposal Service, Inc. | \$ 165,744 | 100% | \$ 82,872 | Approved |
| 5251 | BEST BUY IN TOWN, INC. | \$ 46,093 | 100% | \$ 23,047 | Approved |
| 5252 | Capitol Recycling & Disposal, Inc. | \$ 4,530 | 100% | \$ 2,265 | Approved |
| 5253 | Capitol Recycling & Disposal, Inc. | \$ 187,416 | 100% | \$ 93,708 | Approved |
| Attachment C - Denials | | | | | |
| 4860 | | \$ 3,091,970 | 0% | | Denied |
| 5154 | | \$ 5,695 | 0% | | Denied |
| 5197 | | \$ 32,062 | 0% | | Removed from Agenda |
| 5199 | | \$ 9,914 | 0% | | Removed from Agenda |

| | | | | | |
|---------------------------|----------------------------|---------------|----|--|------------------------|
| 5200 | | \$ 24,643 | 0% | | Removed from Agenda |
| Attachment D - Transfers | | | | | |
| | Certificate #2602 and 3084 | | | | Transferred |
| Attachment E - Rejections | | | | | |
| 5066 | | \$ 66,785 | 0% | | Rejected |
| 5067 | | \$ 132,217 | 0% | | Rejected |

C. Informational Item: Carbureted 2-stroke Marine Engines

Mindy Correll, intern in the Pollution Prevention Program, presented an informational report on the impacts of marine engines on the environment and possible voluntary policies to encourage the retirement of carbureted 2-stroke marine engines. The conclusions of the report were:

- Carbureted 2-stroke marine engines have a significant impact on air quality and a negative, but unquantified, impact on water quality.
- Current policies on marine engines (EPA and CARB) regulate new engines entering the market and will rely on the turnover rate of technology being used. Therefore, the policies will effectively reduce marine engines in the long-term (25 years).
- Marine engines already in use have not been targeted.
- A voluntary policy aimed at encouraging retirement of carbureted 2-stroke marine engines already in use would reduce marine engine emission in the short-term (5 years).
- Any policy option encouraging the retirement of carbureted 2-stroke marine engines is complicated by the cost of purchasing a new marine engine.

Marine engine owners have not been asked about incentives to encourage retirement of their current motors. Information is currently not being collected regarding the number of carbureted 2-stroke vs. direct fuel injection 2-stroke vs. 4-stroke marine engines registered in Oregon. The Commission suggested DEQ work with the Oregon State Marine Board to begin collecting this data. Recommendations were made by Director Marsh on ways to proceed.

1. DEQ should begin to work with stakeholders, including the State Marine Board, to identify ways to collect more data and possible develop voluntary policy options for encouraging the retirement of carbureted 2-stroke marine engines.
2. Whenever possible, DEQ should collect and refine information regarding the impacts of marine engines on Oregon's environment by monitoring the research work being conducted around the nation.
3. DEQ should watch California for results of CARB regulations on marine engines and monitor if there is any ancillary effect for Oregon.
4. DEQ should continue to look at options for encouraging the retirement of carbureted 2-stroke marine engines but keep in mind that any policy will be complicated by the cost of new marine engines and weight that cost with the benefits of the policy.

D. Informational Item: Final Legislative Report

Lauri Aunan, Assistant to the Director, presented information on the final status of 1999 legislation as contained in a memorandum dated September 7, 1999.

E. Rule Adoption: Reorganization and Non-substantive Changes to OAR Divisions 20 through 34

Andy Ginsburg, Acting Air Quality Administrator, provided the Commission with introductory remarks. Scott Manzano, lead rule writer, informed the Commission that the rule was proposed for reorganization and clarification purposes; it would provide a basis for further rule streamlining in the future and contained no regulatory change.

The Department received only one public comment, which was from ~~Stole Rive~~ *Stoel Rives* Attorneys regarding potential misplacement of definitions during the reorganization process, and potentially adding more rules to the State Implementation Plan (SIP). Air Quality staff had carefully reviewed the definition applicability, and the proposed rule was non-substantive; no regulatory changes were proposed. The rules for the Title V fee increase, adopted by the Commission in June, 1999, were inadvertently omitted from the proposed rule text, and should be part of the proposed rule for adoption. The omitted rule numbers were specifically stated for the record.

After discussion with Larry Knudsen, Department of Justice, it was recommended that the Commission adopt the proposed rules, including the Title V fee adoption of June, 1999. A motion was made by Commissioner Reeve to reflect that recommendation. It was seconded by Commissioner Van Vliet and carried with four "yes" votes. A motion was then made by Commissioner Reeve to adopt the proposed renumbered and revised SIP rules as an amendment to the State Implementation Plan. It was seconded by Commissioner Van Vliet and carried with four "yes" votes.

F. Rule Adoption: Grants Pass Carbon Monoxide Maintenance Plan

Andy Ginsburg, Acting Air Quality Administrator, and Patti Seastrom, Air Quality Planner, presented the proposed carbon monoxide maintenance plan and redesignation request. The plan demonstrates that Grants Pass will continue to meet the public health standards for carbon monoxide through 2015, without the need to continue the wintertime oxygenated fuel requirement for the Grants Pass control area. The plan was developed with the assistance of the Grants Pass Air Quality Advisory Committee and allows the Department to request that the Environmental Protection Agency redesignate Grants Pass as an area that meets the carbon monoxide public health standards. The significant reduction in carbon monoxide emissions is a result of continuing improvements in motor vehicle emissions control technology. A third bridge constructed across the Rogue River has also helped to reduce carbon monoxide emissions in the nonattainment area by diverting traffic around the congested central business district. The redesignation and elimination of oxygenated fuel will be effective upon approval by EPA. The Department will continue to monitor for carbon monoxide once the area is redesignated. If an exceedance occurs, the plan includes contingency measures to address a future possible exceedance. Commissioner Reeve asked if the area that potentially affects carbon monoxide levels in the central business district is larger than the central business district. The emission inventory presented for adoption is an inventory of the urban growth boundary. Although carbon monoxide is a localized pollutant, growth in the area could result in carbon monoxide "hot spots" outside of the existing nonattainment area, and the Department periodically studies those occurrences. When asked if woodstove use was a factor in the nonattainment area, staff responded that residential woodstove use occurs on the perimeter of the central business district and is a factor, although insignificant when compared to motor vehicle emissions. Counsel was asked if the delayed implementation language proposed in the rule amendments is necessary, given the significant rule cleanup just adopted. He replied that it is fairly common practice, but could be handled in a separate rule to avoid an anachronism in the rule. The Secretary of State could also be asked to not codify the rule until it is effective, or the rule can be amended after EPA takes action on the SIP. Staff agreed to continue looking for a better solution.

Commissioner Reeve asked if Medford and Portland had been able to demonstrate compliance with the standard in future years without oxygenated fuel. Staff responded that Medford was unable to demonstrate compliance without oxygenated fuel because of significant growth projections. DEQ will reanalyze Medford when the revised MOBILE model is available. This version of the model will apply a lower emissions credit to oxygenated fuel. Portland was able to demonstrate compliance with oxygenated fuel; however, local interests requested oxygenated fuel continue to provide an additional safety margin.

A motion was made by Commissioner Eden to adopt the maintenance plan and redesignation, including the attached reports. Commissioner Van Vliet seconded the motion and it carried with four "yes" votes. A second motion was made by Commissioner Eden to ensure that all proposed revisions to the State Implementation Plan are adopted. Commissioner Reeve seconded the motion and it carried with four "yes" votes. Chair Whipple also asked the Department to express the Commission's appreciation of the efforts made by the Grants Pass Air Quality Advisory Committee to the committee members.

Andy Ginsburg and Patti Seastrom then briefly explained to the Commission the PM_{2.5} pollution prevention efforts also taking place in the Grants Pass area. The Grants Pass Air Quality Advisory Committee developed a five-point plan to reduce PM_{2.5} emissions from woodstoves and open burning over the next three years. The measures are a combination of voluntary and regulatory, and will be implemented by local government. Commissioner Reeve asked for an update on the legal status of the PM_{2.5} standard. Staff replied that the circuit court decided that EPA does not have the authority to enforce the new standard, but did not set aside the standard. The Department is moving ahead with pollution prevention work on the basis of protecting public health according to the standard.

G. Expansion of the Rogue Basin Open Burning Control Area

This item was postponed.

H. Informational Item: Hazardous Air Toxics Program (HAP) Development

The recommendations of the HAP Consensus Group were presented by Sarah Armitage, HAP Coordinator; committee member Sarah Doll of Oregon Environmental Council; and committee member Lowell Miles of Miles Fiberglass. The presentation described air toxics concerns that caused the Department to convene the HAP Consensus Group, the committee process, and committee recommendations for developing the Department's existing air toxics program. The recommendations were composed of scientific enhancements to the Base Air Toxics Program, a Geographic Approach to address local air toxics concentrations, and a Safety Net Program to catch potentially high risk emissions not addressed by other program elements. Discussion centered on how different program elements would work, the operation of a recommended Science Advisory Panel, and program funding issues.

Public Comment:

The following citizens presented public testimony.

Bob Hagbom, Mayor of Brookings, thanked DEQ for helping them with the expansion of the city's wastewater treatment plant.

Richard Knablin, Coalition for Community Vision, spoke regarding building regulations in a tsunami zone.

Susan Callahan testified regarding the proposed Nucor plant.

Dan Pence and Shane Jackson, SCOW, thanked the Commission and DEQ for their research regarding 2-stroke marine engines and urged continued follow-up.

Chris Hagerbaumer, Oregon Environmental Council, spoke regarding 2-stroke marine engines.

Robert Stewart addressed the Commission on several Coos County issues.

Peter Ryan testified regarding the proposed Nucor plant.

I. Commissioners' Reports

No reports were given.

J. Director's Report

On Sept. 24, Gov. Kitzhaber announced an Executive Order directing DEQ to lead a statewide effort to eliminate releases of Persistent, Bioaccumulative, and Toxic pollutants (PBTs) into Oregon's environment by the year 2020. PBTs are highly toxic, long-lasting substances that can build up in the food chain to levels that are harmful to human and ecosystem health. They come in both natural and synthetic form. Only in the past few years have scientists discovered that PBTs can have an adverse effect on the hormonal and nervous system, can cause reproductive and developmental problems, have genetic impacts, and can cause cancer. In upcoming months, DEQ will work with a broad range of industries, governmental agencies, and interested citizens to learn more about the origins, amounts, and types of PBTs released in Oregon. Data will be used to develop plans to eliminate their

release. DEQ will identify ways to provide technical assistance, economic incentives, and pollution prevention education to help eliminate PBT releases in the future.

Dan's Ukiah Service in Ukiah, Oregon, has been fined \$63,000 for not upgrading or recertifying underground fuel tanks by the March, 1999, deadline and for refusing DEQ access to their records. Every other station in Oregon is either in compliance or working toward compliance. Dan Vincent, the station owner, has filed a written appeal. DEQ is moving forward with setting a date for a contested case hearing.

DEQ is installing a new system of collecting methane gas at the Killingsworth Fast Disposal (KFD) site, at NE Killingsworth Street and NE 75th Avenue, near the Portland Airport. The 24-acre former landfill site once was operated by Riedel Waste Disposal Systems (RWS) in the 1980s. It closed in 1990, and became an "orphan" site in 1994 after RWS was dissolved and its parent company filed for bankruptcy. Installation of the new methane collection system will continue through this winter. Currently, DEQ is drilling new gas extraction wells. The drilling should be completed this fall. The methane collection system and a 35-foot-high flare tower will be constructed later this winter. The tower will be an enclosed stack where the gas will be burned. Overall cost of this construction project is about \$1 million, with funding coming from DEQ's Solid Waste Orphan Site Fund.

Recent events surrounding the Ashland Irrigation Project will mean that full improvements to Bear Creek water quality during the summer months will be delayed one or two years. While different options are possible, there will be no way for Ashland to meet the summer Bear Creek TMDL by April, 2000, as currently set forth in the MAO with the city. To meet the Bear Creek nutrient TMDL, Ashland is combining the improvement of the treatment works and the reuse of effluent offsite.

A new program called Eco-Logical Business for automotive services has been implemented. This is a product of the Portland Area Pollution Prevention Outreach Team which includes DEQ; the cities of Gresham, Portland and Troutdale; Unified Sewerage Agency; Washington County; Clackamas County; and Metro. To date, six automotive service operations have volunteered in Portland for this new program and subsequently met certification criteria which recognize shops that use management practices designed to prevent pollution and minimize releases to the environment through spills or improper disposal. In most cases, these practices go beyond the minimum to comply with environmental regulations. The Outreach Team has also partnered with local automotive trade associations to more effectively promote the program within the business community.

The Department is making progress on agreements with both the Port of Portland and Ross Island Sand & Gravel for site assessment work at Ross Island. The Port of Portland workplan for their portion of the investigation has gone through extensive review, including review and comment by a panel of outside experts. The potential operation changes at Ross Island are a business decision for Ross Island Sand & Gravel, and do not affect the Department's objectives or expectations for a thorough assessment and potential cleanup at the site.

There were no exceedances of the federal standard for ground-level ozone anywhere in the state this summer. There were two Clean Air Action Days in the Portland-Vancouver area (Aug. 23 and Aug. 27) as a precaution due to forecasted high temperatures.

DEQ played a pivotal role in negotiating an agreement on a small refinery compliance extension that will allow western states to support a nationwide cap on sulfur in gasoline. This clears the path for EPA to adopt this measure to significantly reduce motor vehicle emissions.

The Department began its dialogue September 2, 1999, with the Army concerning the Dunnage incinerator at the Umatilla Chemical Disposal Program (UMCD) and plans to postpone its construction for further study. Department staff are currently researching and reviewing the Army's proposal to draft a recommendation to the Commission. Also on that date Department staff discussed issues dealing with the storage of munitions and wastes. The application for a UMCD storage permit is currently under review by staff, and two Notices of Deficiency have been issued.

GASP et al has filed a new Petition for Review in Multnomah County Circuit Court challenging the EQC's March, 1999, Order Clarifying Permit Decision. The petition for review was filed on August 9, 1999. The attorney general's office is preparing a response to the petition that is due within 30 days of the receipt of petition.

The Commission asked that a representative from the Army be at the next EQC meeting to update them on the September 15 incident at the UMCD.

Staff Notes:

Tom Fisher was honored for his 25 years of service. He started with DEQ May 7, 1974 as a sanitarian with the Department's on-site program in Salem. He has worked in the Salem office except for two rotational assignments. He has spent most of his time as a regional generalist, working in the air quality, water quality and solid waste programs. Since 1993, he has worked in the Water Quality program, or jointly with the Solid Waste program. Tom is recognized as one of the Department's most experienced and knowledgeable staff on beneficial use of biosolids and beneficial use of food processing wastewater.

Bonnie Lamb and Bud Roman were the subject of a glowing "hats off" letter sent to the Director from Farmers Irrigation District this month. In the matter of working on water quality issues, District Coordinator Jerry Bryan wrote, "Bonnie is an asset to your department and to the State of Oregon." And Bud's assistance in the removal of an underground storage tank was "solution-oriented." Both Bonnie and Bud were commended by Mr. Brian as having "impressed us greatly."

Sherm Olson, Dennis Illingworth, and Greg Farrell were the subject of praise by David Schuman, Deputy Attorney General of Oregon in a letter to the Director this month. "I would like to take this opportunity to tell you what a terrific job your staff did in helping me prepare for and try the EZ Drain case. I was impressed with the assistance (and the education) I received from these fine employees," Mr. Schuman wrote.

There being no further business, the meeting was adjourned at 1:25 p.m. The Commission toured the New Carissa site after the meeting.

Pollution Control Facility Tax Credit¹

Oregon's Pollution Control Tax Credit statute was enacted in 1967 to help businesses comply with new federal environmental laws. Businesses were not accustomed to and not financially prepared to comply with environmental regulations. The statute gave them financial support in the new situation. In 1987, the Oregon legislature began a shift toward more effective environmental use of these tax credit dollars by including pollution controls not required by law, but constructed only for the purpose of pollution control. Since 1967, the Environmental Quality Commission (EQC) has awarded tax credit certificates valued at \$586 million² to Oregon taxpayers who made capital investments in eligible facilities.

Eligible Facilities

Facilities that are eligible for pollution control tax credits prevent, reduce, eliminate or control:

- Emissions to the atmosphere;
- Contamination of ground or surface waters;
- Solid waste by recycling or material recovery;
- Hazardous waste; and
- Noise pollution.

Amount of Tax Credit

An Oregon taxpayer may take up to 50% of the certified cost of a facility as a credit to reduce their Oregon tax liability. The actual amount of the tax credit depends on how much of the facility cost is attributed to pollution control. In general, the Oregon taxpayer may apply the credit against income or corporate excise taxes, at a rate of 5%³ per year for 10 years.

EQC Certification

The EQC's certification that a facility is a pollution control facility is required before a taxpayer may legally take relief from their Oregon tax liability. The certification is based upon the Department of Environmental Quality (DEQ) recommendation and assurance that an installation meets the definition of a pollution control facility; that it reduces a substantial quantity of pollution; and that the costs are properly allocable to pollution control according to the controlling regulations.

Not all facilities that prevent, control or reduce pollution are eligible for certification according to the statute. Not all costs incurred during the construction of a facility may be allocated to pollution control according to statute and rule. Therefore, DEQ reviews engineering and financial information before making their recommendation to the EQC.

¹ OAR 468.150, implemented by OAR Chapter 340, Division 16

² See *Value of Certificates Issued Each Year* for a history of certificates issued each year since the inception of the program.

³ Determined by multiplying the certified facility cost by the percentage of the cost allocable to pollution control.

Required Facilities

Most of the certificates issued for pollution control tax credits still subsidize actions that are required by regulations. Since 1967, environmental compliance has become a planned expense of doing business. These actions would be taken with or without the benefit of a tax credit. Today, 75% of the dollar value of tax credits are for pollution controls installed to comply with environmental laws.

Stack scrubbers and bag houses are examples of required pollution control. In smokestack industries, environmental regulations require that emissions from these stacks be "scrubbed", and pollution captured in bag houses, which acts as a kind of dust collector. This prevents hazardous substances from being set loose into the air. Forest products and high tech industries are the major beneficiaries of tax credits for this purpose.

Facilities Used Exclusively for Pollution Control

The legislature expanded the pollution control tax credit program in 1987. This expansion was intended to encourage businesses to invest in technologies and processes that prevent, control or reduce significant amounts of pollution. Today, 25% of the dollar value of tax credits are for pollution controls installed not because they were required but solely for the pollution control benefit.

An example of this type of facility is a truck washing facility that has a wash pad, over-spray protection, an oil and water separator, and water recycling capabilities. This type of facility prevents contamination of surface- and ground-water.

Material recovery facilities are the fastest growing segment of facilities installed exclusively for pollution control benefits. Paper and fiber products industries are the major beneficiaries of this type of tax credit.

Certificate Holders' Profile

The top five companies that benefit from the pollution control tax credit program hold certificates worth 36% of the value of all tax credits issued by the EQC.⁴ Portland General Electric Company has been number one beneficiary with certified facility costs in the amount of \$152 million of which \$76 million may be taken as credit to offset their Oregon tax liability. Small business owners hold the majority of the certificates valued under \$25,000

When considering the population of communities where the pollution control facilities have been installed, 62% were in rural areas where the population is under 10,000.⁵ However, the certificate holders are located in areas with populations over 40,000 on 71% of all certificates issued.

⁴ See *Certificates Issued by Applicant – Ranked by Certified Cost 1968 through 1998*

⁵ See *Certificates Issued by Location of the Facility 1968 through 1998*

Value of Certificates Issued Each Year 1968 through 1998

| Year | Count | Sum | Average | Minimum | Maximum |
|--------------|-------------|----------------------|------------------|------------|----------------------|
| 1968 | 39 | \$2,618,426 | \$67,139 | \$1,174 | \$710,525 |
| 1969 | 37 | \$2,606,028 | \$70,433 | \$2,428 | \$526,352 |
| 1970 | 50 | \$3,553,209 | \$71,064 | \$833 | \$2,017,852 |
| 1971 | 65 | \$8,566,588 | \$131,794 | \$597 | \$3,202,811 |
| 1972 | 123 | \$7,659,505 | \$62,272 | \$506 | \$2,702,638 |
| 1973 | 142 | \$12,720,643 | \$90,197 | \$383 | \$3,050,909 |
| 1974 | 80 | \$11,744,998 | \$146,812 | \$2,169 | \$4,255,991 |
| 1975 | 94 | \$17,339,494 | \$184,463 | \$1,369 | \$6,025,886 |
| 1976 | 112 | \$18,026,115 | \$160,947 | \$660 | \$3,701,457 |
| 1977 | 95 | \$10,099,350 | \$107,355 | \$251 | \$2,356,183 |
| 1978 | 80 | \$30,427,490 | \$385,082 | \$882 | \$12,118,804 |
| 1979 | 85 | \$17,714,066 | \$208,401 | \$734 | \$4,392,593 |
| 1980 | 161 | \$34,440,257 | \$215,230 | \$1,129 | \$7,079,554 |
| 1981 | 141 | \$47,809,943 | \$341,389 | \$317 | \$23,676,924 |
| 1982 | 98 | \$40,679,273 | \$415,095 | \$336 | \$15,491,404 |
| 1983 | 79 | \$33,871,933 | \$423,435 | \$1,600 | \$6,621,993 |
| 1984 | 60 | \$15,553,898 | \$259,232 | \$1,279 | \$5,687,760 |
| 1985 | 48 | \$3,420,580 | \$71,262 | \$1,151 | \$306,282 |
| 1986 | 77 | \$23,718,062 | \$308,027 | \$1,500 | \$19,625,635 |
| 1987 | 70 | \$1,839,775 | \$26,282 | \$2,461 | \$384,698 |
| 1988 | 46 | \$7,852,420 | \$170,705 | \$1,323 | \$2,413,003 |
| 1989 | 61 | \$4,998,086 | \$86,682 | \$1,750 | \$1,226,911 |
| 1990 | 205 | \$4,451,995 | \$22,181 | \$0 | \$797,565 |
| 1991 | 410 | \$21,536,030 | \$54,893 | \$601 | \$3,928,543 |
| 1992 | 215 | \$16,048,583 | \$79,753 | \$0 | \$5,059,650 |
| 1993 | 254 | \$33,808,944 | \$137,545 | \$539 | \$7,758,430 |
| 1994 | 138 | \$19,999,544 | \$103,496 | \$0 | \$5,993,396 |
| 1995 | 168 | \$50,107,149 | \$296,523 | \$349 | \$16,400,000 |
| 1996 | 131 | \$7,326,070 | \$56,749 | \$598 | \$933,372 |
| 1997 | 126 | \$7,783,337 | \$62,267 | \$479 | \$2,492,441 |
| 1998 | 226 | \$67,657,217 | \$ 299,368 | \$ 1,050 | \$ 39,577,895 |
| Total | 3716 | \$585,979,008 | \$157,691 | \$0 | \$ 39,577,895 |

1/1/99 - 6/30/99

| | | | | | |
|-----------|------|---------------|------------|--------|--------------|
| Projected | 67 | \$ 20,604,087 | \$ 316,986 | \$ 645 | \$ 3,110,132 |
| | 3783 | \$606,583,095 | | | |

Assumptions

- 1 The statistics represented on this sheet are based on the certificate value (maximum potential revenue impact) of all certificates issued by the Environmental Quality Commission according to the pollution control, pollution prevention and the reclaimed plastics tax credit programs' statutes and rules.
- 2 The certificate value is determined by: facility cost X the percentage of the facility cost allocable to pollution control X 50%.
- 3 This document does not represent the amount of credit actually taken to offset Oregon taxpayers' tax liability.

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| Portland General Electric Company | 152,026,223 | 75,687,783 | 140 |
| Georgia-Pacific West, Inc. | 84,847,190 | 42,423,595 | 2 |
| Boise Cascade Corp. | 80,652,142 | 40,210,753 | 86 |
| Weyerhaeuser Co. | 61,861,600 | 29,501,257 | 142 |
| Willamette Industries, Inc. | 40,765,285 | 20,035,698 | 126 |
| Pacificorp Financial Services | 52,335,027 | 19,625,635 | 1 |
| REYNOLDS METALS CO | 34,043,890 | 17,021,945 | 21 |
| Publishers Paper Co. | 56,874,390 | 28,102,516 | 46 |
| International Paper Co. | 29,752,468 | 13,968,056 | 48 |
| Georgia Pacific Corp. | 24,720,086 | 12,122,633 | 80 |
| Pope & Talbot, Inc. | 23,774,824 | 11,887,412 | 1 |
| Bergsøe Metal Corp | 23,771,898 | 11,885,949 | 1 |
| Hyundai Semiconductor America, Inc. | 18,619,419 | 9,309,710 | 3 |
| CROWN ZELLERBACH CORP | 18,298,676 | 8,899,858 | 34 |
| Medford Corp. | 16,644,403 | 7,949,478 | 11 |
| James River - Wauna Mill | 15,516,859 | 7,758,430 | 1 |
| Intel Corporation | 14,629,702 | 7,314,851 | 15 |
| Spaulding Pulp Paper Co. | 14,159,107 | 7,079,554 | 1 |
| Oregon Waste Systems, Inc. | 12,698,061 | 6,349,031 | 4 |
| ORE IDA Foods, Inc. | 12,747,637 | 6,335,945 | 5 |
| Bohemia, Inc.-Now Willamette Industries | 12,540,376 | 6,270,188 | 27 |
| Oregon Portland Cement Co. | 12,532,188 | 6,266,094 | 26 |
| Tektronix, Inc. | 12,452,652 | 6,203,305 | 46 |
| Chemical Waste Management of the NW | 10,119,299 | 5,059,650 | 1 |
| MARTIN MARIETTA ALUMINUM INC | 9,319,815 | 4,659,908 | 6 |
| Teledyne Industries, Inc. | 8,991,470 | 4,495,735 | 82 |
| Menasha Corp | 7,846,890 | 3,919,903 | 26 |
| ROSEBURG LUMBER CO | 6,991,829 | 3,495,915 | 21 |
| GILMORE STEEL CORP | 6,735,061 | 3,367,531 | 6 |
| Western Kraft Corp. | 6,381,247 | 3,190,624 | 14 |
| Wacker Siltronic Corp. | 6,212,367 | 3,106,184 | 8 |
| Timber Products Co. | 6,215,742 | 3,105,056 | 21 |
| Smurfit Newsprint Corp. | 5,371,121 | 2,685,561 | 5 |
| Roseburg Forest Products Co. | 5,337,924 | 2,668,962 | 6 |
| FUJITSU MICROELECTRONICS INC | 5,325,125 | 2,662,563 | 4 |
| PRECISION CASTPARTS CORP | 5,293,401 | 2,581,799 | 17 |
| HANNA NICKEL SMELTING CO | 4,740,267 | 2,370,134 | 11 |
| Ellingson Lumber Co. | 4,672,324 | 2,336,162 | 1 |
| Lamb-Weston, Inc. | 4,981,847 | 2,290,304 | 4 |
| Willamina Lumber Co. | 4,503,101 | 2,251,551 | 10 |
| Tillamook County Creamery Association | 4,587,030 | 2,164,057 | 3 |
| HARVEY ALUMINUM INC | 4,276,377 | 2,138,189 | 2 |
| Champion International Corp | 4,078,983 | 2,039,492 | 29 |
| Elf Atochem North America | 3,940,316 | 1,970,158 | 9 |
| American Can Co. | 3,856,800 | 1,928,400 | 12 |
| Diamond International Corp. | 3,808,000 | 1,904,000 | 1 |
| DOW CORNING CORP | 3,714,849 | 1,857,425 | 5 |
| Roseburg Lumber Co. | 3,572,819 | 1,786,410 | 2 |
| Amalgamated Sugar Co. | 3,520,945 | 1,719,452 | 12 |
| FINLEY BUTTES LTD PARTNERSHIP | 3,377,202 | 1,688,601 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--|---------------|-------------------|---------------------|
| Chevron USA, Inc. | 3,515,439 | 1,662,992 | 28 |
| Oregon Waste Systems, Inc./Columbia Ridge Landfill | 3,093,687 | 1,546,844 | 1 |
| Boeing Company | 2,923,115 | 1,461,558 | 8 |
| Johnson Controls Battery Group, Inc. | 2,915,463 | 1,449,897 | 5 |
| CO | 2,874,000 | 1,437,000 | 1 |
| Teledyne Wah Chang Albany | 2,692,077 | 1,346,039 | 36 |
| Western Stations Co. | 2,753,329 | 1,273,450 | 26 |
| Atlantic Richfield Co. | 2,833,331 | 1,235,595 | 36 |
| BLUE MT FOREST PRODUCTS INC | 5,842,431 | 1,226,911 | 1 |
| Jeld Wen, Inc. | 2,433,675 | 1,216,838 | 11 |
| Pennwalt Corp. | 2,360,889 | 1,178,082 | 10 |
| JR SIMPLOT CO | 2,342,511 | 1,171,256 | 1 |
| BROOKSSCANLON INC | 2,694,418 | 1,168,165 | 3 |
| Far West Fibers, Inc. | 2,179,206 | 1,089,464 | 11 |
| JAMES RIVER CORP | 2,169,936 | 1,084,968 | 12 |
| CASCADE STEEL ROLLING MILLS INC | 2,126,773 | 1,063,387 | 2 |
| SOUTHWEST FOREST PRODUCTS INC | 2,106,161 | 1,053,081 | 4 |
| EMARK INC | 2,102,951 | 1,051,476 | 1 |
| POTTERS INDUSTRIES INC | 1,952,954 | 976,477 | 1 |
| Louisiana Pacific Corp. | 1,935,071 | 967,536 | 3 |
| RHODIA INC | 1,894,027 | 947,014 | 2 |
| Truax Harris Energy Co., LLC | 1,877,710 | 870,955 | 18 |
| United Disposal Service, Inc. | 1,805,841 | 870,075 | 58 |
| STAYTON CANNING CO COOP INC | 1,715,677 | 857,839 | 13 |
| Columbia Steel Casting Co., Inc. | 1,598,696 | 799,348 | 16 |
| Columbia Plywood Corp. | 1,557,264 | 766,113 | 3 |
| Texaco Refining & Marketing, Inc. | 1,756,262 | 757,789 | 12 |
| Simpson Timber Co. | 1,473,088 | 736,544 | 2 |
| ESCO CORP | 1,471,926 | 733,264 | 22 |
| RIEDEL ENVIRONMENTAL SERVICES | 1,438,742 | 719,371 | 1 |
| GREGORY FOREST PRODUCTS INC | 1,754,938 | 718,290 | 4 |
| Quality Trading Co., LLC | 1,433,263 | 709,787 | 2 |
| Integrated Device Technology (IDT) | 1,378,688 | 689,344 | 5 |
| Leathers Enterprises | 1,505,820 | 685,345 | 7 |
| Avison Lumber | 1,345,229 | 672,615 | 4 |
| Dee Forest Products, Inc. | 1,343,960 | 671,980 | 1 |
| Neste Resin Corp. | 1,294,499 | 647,250 | 2 |
| Cain Petroleum, Inc. | 1,346,574 | 634,528 | 9 |
| EDWARD HINES LUMBER CO | 1,261,705 | 630,853 | 3 |
| CHEMICAL WASTE MGMT OF THE NW | 1,253,758 | 626,879 | 3 |
| Husky Industries Inc | 1,356,150 | 625,415 | 2 |
| 3M CO | 1,473,832 | 589,533 | 1 |
| Truax Corp. | 1,234,649 | 584,072 | 46 |
| STIMSON LUMBER CO | 1,199,568 | 574,650 | 4 |
| Woolley Enterprises, Inc. | 1,137,709 | 568,855 | 9 |
| Anodizing, Inc. | 1,136,691 | 568,346 | 9 |
| Leathers Oil Co. | 1,183,626 | 558,390 | 10 |
| EAGLEPICHER MINERALS | 1,104,430 | 552,215 | 1 |
| BP OIL CO | 1,275,442 | 548,550 | 14 |
| OLSON LAWYER TIMBER CO | 1,084,126 | 542,063 | 2 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| Golden Valley Farms | 1,357,177 | 527,443 | 8 |
| Finley Buttes Landfill, Co. | 1,052,041 | 526,021 | 1 |
| TAYLOR LUMBER & TREATING INC | 1,010,220 | 505,110 | 1 |
| Stein Oil Co., Inc. | 1,062,743 | 480,806 | 12 |
| JAMES RIVER PAPER CO INC | 930,535 | 465,268 | 1 |
| MT MAZAMA PLYWOOD CO | 898,015 | 449,008 | 1 |
| LANE PLYWOOD INC | 896,888 | 448,444 | 2 |
| PRAEGITZER INDUSTRIES INC | 882,060 | 441,030 | 5 |
| Blount, Inc. | 879,696 | 439,848 | 6 |
| Mt. Hood Metals, Inc. | 877,644 | 438,822 | 1 |
| KINZUA CORP | 862,560 | 431,280 | 1 |
| CHEVRON CHEMICAL CO | 857,646 | 428,823 | 1 |
| Dee Forest Products Inc | 852,061 | 426,031 | 2 |
| NORTH SANTIAM VEENER INC | 1,176,725 | 410,306 | 3 |
| Oregon Steel Mills, Inc. | 12,832,159 | 407,345 | 4 |
| Precision Castparts Corp. | 1,229,373 | 403,711 | 3 |
| EVERGREEN FOREST PRODUCTS INC | 1,255,201 | 401,664 | 1 |
| HILLSBORO LANDFILL | 799,859 | 399,930 | 1 |
| SWF Plywood Co. | 797,665 | 398,833 | 8 |
| LINNTON PLYWOOD ASSOCIATION | 792,984 | 396,312 | 4 |
| DALLES CHERRY GROWERS INC | 791,512 | 395,756 | 2 |
| Georgia-Pacific Corp. | 788,845 | 394,423 | 1 |
| NATIONAL FRUIT CANNING CO INC | 780,354 | 390,177 | 1 |
| SHELL OIL CO | 767,134 | 383,567 | 2 |
| EVANS PRODUCTS CO | 756,849 | 378,425 | 8 |
| WARRENTON LUMBER CO | 733,344 | 366,672 | 1 |
| Tidewater Barge Lines, Inc. | 724,000 | 362,000 | 3 |
| Pacific Petroleum Corp. | 782,337 | 357,909 | 6 |
| Owens Illinois, Inc. | 713,647 | 356,824 | 3 |
| Pacific Power & Light Co. | 695,066 | 347,533 | 27 |
| SOUTH COAST LUMBER CO | 668,663 | 334,332 | 4 |
| JSG Inc. | 778,747 | 331,457 | 9 |
| UNION CARBIDE CORP | 656,746 | 328,373 | 2 |
| PACIFIC CARBIDE ALLOYS CO | 653,714 | 326,857 | 4 |
| Safeway, Inc. | 650,431 | 325,216 | 1 |
| MAZAMA TIMBER PRODUCTS INC | 656,417 | 316,934 | 4 |
| Avison Timber Company | 624,142 | 312,071 | 1 |
| Albany-Lebanon Sanitation, Inc. | 610,391 | 305,195 | 14 |
| Wilco Farmers, INC. | 654,714 | 302,882 | 3 |
| Fred Meyer, Inc. | 577,180 | 288,590 | 1 |
| Blue Mountain Forest Products | 574,524 | 287,262 | 1 |
| KAISER GYPSUM CO INC | 553,108 | 276,554 | 7 |
| GRAY & CO | 549,564 | 274,782 | 4 |
| OR/PAC Feed & Forage, LTD | 571,547 | 273,507 | 3 |
| AMFAC FOODS INC | 542,092 | 271,046 | 2 |
| Hilton Fuel Supply Co. | 541,331 | 270,666 | 4 |
| BROOKSWILLAMETTE CORP | 541,427 | 269,906 | 10 |
| STADLEMAN FRUIT CO INC | 539,130 | 269,565 | 1 |
| ROSBORO LUMBER CO | 551,217 | 267,764 | 4 |
| SOUTHWEST FOREST PRODUCTS INC/CHANGED TO | 528,547 | 264,274 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---------------------------------|---------------|-------------------|---------------------|
| INC | 524,607 | 262,304 | 2 |
| Venell Farms, Inc. | 524,231 | 262,116 | 5 |
| ROUGH READY LUMBER CO | 510,549 | 255,275 | 1 |
| CHEMICAL WASTE OF THE NORTHWEST | 508,289 | 254,145 | 1 |
| GRAPHIC ARTS CENTER INC | 508,213 | 254,107 | 4 |
| CARGILL INC | 507,950 | 253,975 | 1 |
| COLUMBIA GRAIN INC | 504,932 | 252,466 | 1 |
| NATIONAL METALLURGICAL CO | 504,241 | 252,121 | 1 |
| Nicolai Co. | 505,064 | 248,237 | 5 |
| Ash Grove Cement Co. | 533,387 | 247,214 | 4 |
| GLACIER SAND GRAVEL CO | 492,602 | 246,301 | 5 |
| BABLER BROTHERS INC | 473,775 | 236,888 | 5 |
| Estergard: Estergard Farms | 471,072 | 235,536 | 5 |
| HULLOAKES LUMBER CO | 464,873 | 232,437 | 2 |
| Western Foundry Co. | 460,357 | 230,179 | 3 |
| RFD PUBLICATIONS INC | 459,770 | 229,885 | 1 |
| STEINFELD'S PRODUCTS CO | 447,790 | 223,895 | 1 |
| INC | 434,355 | 217,178 | 1 |
| Corvallis Disposal Co. | 429,378 | 214,689 | 16 |
| Smith Brothers Farm | 413,103 | 206,552 | 5 |
| MERRITT TRUAX INC | 457,688 | 204,005 | 16 |
| TRECO | 454,589 | 200,646 | 5 |
| ROSEBORO LUMBER CO | 400,611 | 200,306 | 1 |
| NORTHWEST MARINE IRON WORKS | 395,040 | 197,520 | 1 |
| CONTINENTAL CAN CO INC | 394,676 | 197,338 | 5 |
| RETER FRUIT CO | 651,618 | 197,187 | 2 |
| LAKEVIEW LUMBER PRODUCTS CO | 393,303 | 196,652 | 2 |
| MIDLANDROSS CORP | 692,068 | 196,548 | 6 |
| BRAND S CORP | 392,916 | 196,458 | 1 |
| LANE INTERNATIONAL CORP | 384,138 | 192,069 | 9 |
| FREIGHTLINER CORP | 429,264 | 189,575 | 6 |
| GLENBROOK NICKEL CO | 376,400 | 188,200 | 1 |
| Owens Corning Fiberglas Corp. | 374,811 | 187,406 | 3 |
| Younger Oil Co. | 380,139 | 185,889 | 13 |
| Mullen Farms, Inc. | 367,973 | 183,987 | 4 |
| STADELMAN FRUIT INC | 354,367 | 177,184 | 1 |
| NORPAC FOODS INC | 353,170 | 176,585 | 3 |
| Oak Creek Farms, Inc. | 477,904 | 175,301 | 8 |
| ELLINGSON LUMBER CO | 400,722 | 175,214 | 3 |
| PACIFIC RESINS CHEMICALS INC | 348,650 | 174,325 | 1 |
| FRERES LUMBER CO INC | 345,219 | 172,610 | 2 |
| Chevron USA Products, Co. | 345,216 | 172,608 | 7 |
| BI-MOR STATIONS INC | 385,653 | 171,573 | 5 |
| CASCADE CONSTRUCTION CO INC | 339,226 | 169,613 | 7 |
| Phalan, Gerald E. | 419,398 | 169,479 | 6 |
| GENERAL FOODS CORP | 337,727 | 168,864 | 5 |
| SPACE AGE FUEL INC | 394,014 | 167,323 | 5 |
| VWDD Partnership | 324,335 | 162,168 | 11 |
| Polk County Farmers' Co-op | 319,006 | 159,503 | 5 |
| S-S Bailing | 401,465 | 156,571 | 1 |
| STATES INDUSTRIES INC | 308,693 | 154,347 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--|---------------|-------------------|---------------------|
| Astoria Plywood Corp. | 208,990 | 104,495 | 2 |
| Norm Poole Oil, Inc. | 232,706 | 104,362 | 3 |
| Northwest Pipeline Corp. | 208,520 | 104,260 | 4 |
| Capital City Companies, Inc | 251,363 | 104,185 | 3 |
| Schrock: Dean & Kathleen | 213,512 | 103,991 | 2 |
| Columbia Helicopter, INC. | 207,925 | 103,963 | 1 |
| DANT RUSSELL INC | 206,938 | 103,469 | 1 |
| Pliska, Harold & Jim | 214,928 | 102,500 | 2 |
| OSTRANDER CONSTRUCTION CO | 204,764 | 102,382 | 2 |
| SANITARY SERVICES INC | 204,407 | 102,204 | 1 |
| ROUGE RUSSET ORCHARDS INC | 204,000 | 102,000 | 1 |
| 4 B Farms, Inc. | 203,865 | 101,933 | 2 |
| Pacific Pride Cardlock | 215,553 | 99,154 | 1 |
| Dinihanian Recycling & Manufacturing, Inc. | 197,902 | 98,951 | 7 |
| McLagan Farms, Inc. | 197,583 | 98,792 | 2 |
| RIDENOUR OIL CO INC | 224,255 | 98,642 | 2 |
| ALBINA FUEL CO | 196,115 | 97,077 | 1 |
| Power Rents, Inc | 193,519 | 96,760 | 3 |
| Melrose Orchards, Inc. | 192,200 | 96,100 | 3 |
| ELECTRONIC CONTROLS DESIGN | 192,048 | 96,024 | 1 |
| Park Market Texaco | 199,735 | 95,873 | 1 |
| CONTINENTAL BRASS INC | 190,478 | 95,239 | 1 |
| B & C Leasing, INC. | 196,080 | 95,099 | 1 |
| LICORICE LANE FARM INC | 187,682 | 93,841 | 1 |
| MacPherson, Robert D. | 183,561 | 91,781 | 3 |
| Eugene Truck Haven, Inc. | 216,400 | 90,190 | 2 |
| Gage Industries, Inc. | 178,668 | 89,334 | 1 |
| GRASS FIBER INC | 178,376 | 89,188 | 1 |
| Carson, John A. | 185,291 | 88,940 | 1 |
| Troutwood, Inc. | 194,738 | 88,606 | 1 |
| UNION PACIFIC RAILROAD CO | 176,653 | 88,327 | 1 |
| Glaser: Steve Glaser Farm, Inc. | 529,026 | 88,171 | 3 |
| Denton Plastics, Inc. | 175,751 | 87,876 | 8 |
| KIRSCH Family Farms Inc. | 175,057 | 87,529 | 1 |
| Pohlschneider Farms, Inc. | 184,104 | 87,443 | 3 |
| UNION OIL CO OF CALIFORINA | 174,874 | 87,437 | 1 |
| McFarlane's Bark, Inc. | 174,720 | 87,360 | 1 |
| Gardner Paper Mill | 173,239 | 86,620 | 1 |
| Daniel D. & Steve C. Sandau | 171,734 | 85,867 | 1 |
| AGRIPAC, Inc. | 283,751 | 85,792 | 7 |
| MERRITT #2 INC | 211,242 | 85,625 | 2 |
| GRAHAM OIL CO INC | 190,386 | 85,450 | 2 |
| TREPLEX INC | 170,598 | 85,299 | 1 |
| MEDFORD PEAR CO INC | 213,200 | 85,000 | 3 |
| Double V Dairy | 168,986 | 84,493 | 1 |
| METROFUELING INC | 174,668 | 84,104 | 27 |
| CRYSTAL SPRINGS PACKING CO INC | 210,233 | 84,093 | 1 |
| Walser Enterprises | 173,000 | 83,905 | 2 |
| Devin Oil Co., Inc. | 175,923 | 83,050 | 2 |
| Stellmacher, William | 217,527 | 82,957 | 4 |
| PRIESTLEY OIL & CHEMICAL CO INC | 183,503 | 82,513 | 2 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--|---------------|-------------------|---------------------|
| AMERICAN INDUSTRIAL SERVICE | 302,339 | 151,170 | 1 |
| Ruckert, Roger A. DBA G & R Seeds | 301,057 | 150,529 | 5 |
| LTM, Inc. | 299,677 | 149,839 | 2 |
| Consolidated METCO, Inc. | 295,405 | 147,703 | 4 |
| Mill Waste Recycling Co. | 299,723 | 145,474 | 3 |
| Morse Bros., Inc. | 288,317 | 144,159 | 7 |
| TIMES LITHO INC | 284,119 | 142,060 | 1 |
| ROSEBURG PAVING CO | 283,582 | 141,791 | 5 |
| Knez Building Materials Co. | 282,719 | 141,360 | 2 |
| Patrick Industries, Inc. | 277,030 | 138,515 | 1 |
| HERMISTON FOODS INC | 276,826 | 138,413 | 1 |
| DBD LEASING | 276,500 | 138,250 | 1 |
| HAYS OIL CO | 321,297 | 137,575 | 4 |
| 1180 CORP | 274,591 | 137,296 | 3 |
| Truax Harris Energy, LLC | 289,506 | 134,620 | 1 |
| The Halton Company | 267,014 | 132,987 | 3 |
| Blasen Lumber Corp. | 265,645 | 132,823 | 1 |
| Valmont Industries, Inc. | 264,597 | 132,299 | 2 |
| Springfield Chevron/Pacific Pride | 285,672 | 129,981 | 1 |
| POPE & TALBOT INC | 309,401 | 129,948 | 1 |
| Ernest Glaser Farms | 252,268 | 126,134 | 2 |
| Byrnes Oil Co., Inc. | 275,982 | 125,442 | 7 |
| OREGON FIR SUPPLY CO INC | 250,460 | 125,230 | 1 |
| HUDSPETH PINE INC | 250,400 | 125,200 | 1 |
| WASTE RECOVERY INC | 250,186 | 125,093 | 1 |
| Flanagan Farms, Inc. | 291,744 | 125,040 | 2 |
| McKay: Dean McKay Farms, Inc. | 249,836 | 124,918 | 1 |
| CARMICHAEL COLUMBIA OIL INC | 315,780 | 124,872 | 3 |
| PERMANEER CORP | 248,607 | 124,304 | 7 |
| McKay: Mark McKay Farms, Inc. | 248,496 | 124,248 | 1 |
| Laughlin Oil Company | 288,793 | 124,181 | 1 |
| Eichler Hay Co. | 979,603 | 122,450 | 1 |
| DAYTON SAND & GRAVEL CO INC | 244,810 | 122,405 | 1 |
| May Slade Oil Co., Inc. | 242,186 | 121,093 | 8 |
| Roseburg Paving Co. | 239,360 | 119,680 | 1 |
| BILL TERPENING INC | 250,975 | 118,087 | 3 |
| NORTH SANTIAM PLYWOOD CO | 233,381 | 116,691 | 2 |
| JOHNSON OIL CO INC | 232,789 | 116,395 | 4 |
| NORTHWEST PRINTED CIRCUITS INC | 229,698 | 114,849 | 1 |
| Cersovski Farms | 225,054 | 111,772 | 3 |
| Indian Brook, Inc. | 223,000 | 111,500 | 2 |
| Wah Chang Albany Corp. | 222,861 | 111,431 | 5 |
| WHITE CITY PLYWOOD OREGON LTD | 222,050 | 111,025 | 1 |
| MODOC ORCHARD CO | 367,698 | 110,309 | 5 |
| Christensen Farms | 220,280 | 109,741 | 6 |
| Pendelton Sanitary Service, Inc. | 215,856 | 107,928 | 1 |
| Roselawn Seed Inc. | 215,000 | 107,500 | 1 |
| Northwest Brewer's Grain of Oregon, Inc. | 211,738 | 105,869 | 1 |
| CLEAR PINE MOULDINGS | 209,962 | 104,981 | 3 |
| AE STALEY MANUFACTURING CO | 209,796 | 104,898 | 2 |
| L P BUSCH INC | 209,707 | 104,854 | 3 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|-----------------------------------|---------------|-------------------|---------------------|
| Smith: Smith Brothers Farm | 164,740 | 82,370 | 1 |
| JC COMPTON CONTRACTOR INC | 164,590 | 82,295 | 1 |
| CASCADE WOOD PRODUCTS INC | 164,538 | 82,269 | 1 |
| RICH MANUFACTURING CO OF OREGON | 162,155 | 81,078 | 2 |
| D & O Garbage Service, Inc. | 161,604 | 80,802 | 2 |
| EVANITE BATTERY SEPARATOR | 160,541 | 80,271 | 2 |
| COATS ROBERT L | 160,330 | 80,165 | 2 |
| Mitsubishi Silicon Amercia | 159,791 | 79,896 | 2 |
| S & H Logging, Inc. | 159,600 | 79,800 | 1 |
| EMERALD FOREST PRODUCTS INC | 158,010 | 79,005 | 1 |
| COLUMBIA HELICOPTERS INC | 157,399 | 78,700 | 1 |
| J C COMPTON | 156,255 | 78,128 | 1 |
| CHAMPION BUILDING PRODUCTS | 155,430 | 77,715 | 2 |
| Rexius Forest By-Products Inc. | 155,000 | 77,500 | 1 |
| TELEGRAPH | 154,807 | 77,404 | 1 |
| RUSSELL OIL CO | 186,166 | 77,332 | 5 |
| SHIRTCLIFF OIL CO | 234,055 | 77,061 | 4 |
| Langdon, George E. | 153,060 | 76,530 | 1 |
| Jensen: Carl Jensen Farms | 152,836 | 76,418 | 1 |
| Baker: Richard D./Russell | 164,562 | 75,698 | 1 |
| WSCO Petroleum Corp | 166,175 | 75,610 | 1 |
| OREGON CAVES CHEVRON | 165,715 | 75,400 | 1 |
| Glaser: Ernest Glaser Farm, Inc. | 150,304 | 75,152 | 3 |
| Montgomery: Clyde Montgomery | 148,557 | 74,279 | 4 |
| POWELL DISTRIBUTING CO INC | 165,294 | 73,269 | 3 |
| ROAD & DRIVEWAY CO | 146,496 | 73,248 | 2 |
| HOOD RIVER SUPPLY ASSOCIATION | 145,792 | 72,896 | 1 |
| Vanleeuwen, James | 161,730 | 72,629 | 4 |
| Lake Oswego Shell | 154,331 | 72,536 | 1 |
| Powell Blvd. Chevron, Inc. | 162,604 | 71,873 | 2 |
| Berger Brothers | 147,834 | 71,797 | 6 |
| Oregon Precision Industries, Inc. | 143,047 | 71,524 | 3 |
| K F JACOBSEN CO INC | 142,738 | 71,369 | 2 |
| STOKELYVAN CAMP INC | 141,916 | 70,958 | 1 |
| BI-MOR-STATIONS INC | 162,263 | 69,377 | 2 |
| Columbia Forrest Products, Inc. | 138,452 | 69,226 | 1 |
| Capital City Companies, Inc. | 150,211 | 69,097 | 1 |
| CRAWFORD & DOHERTY FOUNDRY CO | 138,061 | 69,031 | 2 |
| Vanrich Casting | 137,708 | 68,854 | 1 |
| RADIO CAB CO | 146,140 | 68,686 | 1 |
| MERRITT #1 INC | 173,970 | 68,681 | 2 |
| Russell Oil Co. | 145,882 | 68,502 | 3 |
| Clear Oine Moulding, INC. | 135,744 | 67,872 | 1 |
| LES & TERRY'S CHEVRON SERVICE INC | 150,968 | 67,345 | 2 |
| 3G LUMBER CO | 134,420 | 67,210 | 2 |
| EUGENE F BURRILL LUMBER CO | 133,901 | 66,951 | 3 |
| MERRITT TURAX INC | 157,199 | 66,781 | 2 |
| Carson Oil Co. | 186,245 | 66,203 | 12 |
| Hoestre, Franklin | 179,002 | 66,171 | 2 |
| GNB INC | 131,602 | 65,801 | 3 |
| Marx, Carol | 131,499 | 65,750 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--------------------------------------|---------------|-------------------|---------------------|
| Cruickshank, Kenneth D. & Karen L. | 131,339 | 65,670 | 1 |
| McEwen, Richard T. | 141,153 | 65,636 | 1 |
| Balzer Painting, Inc. | 131,173 | 65,587 | 1 |
| Lou Dobbins, Inc. | 142,378 | 65,494 | 2 |
| Jerry Brown Company, Inc. | 144,692 | 65,111 | 1 |
| Sunnyslope Texaco | 139,179 | 64,718 | 1 |
| Alan Bowdish, Inc. | 146,521 | 63,932 | 2 |
| HEWLETT PACKARD CO | 127,321 | 63,661 | 1 |
| Arendell Properties, LLC | 144,610 | 63,628 | 1 |
| Davidson Farms, Inc. | 126,747 | 63,374 | 3 |
| Sunset Fuel Company | 126,226 | 63,113 | 2 |
| JERRY'S MILWAUKIE BP | 134,121 | 61,696 | 1 |
| FRED MEYER INC | 133,866 | 61,578 | 1 |
| JOHNSON ROCK PRODUCTS INC | 123,011 | 61,506 | 2 |
| JT.VENTURE | 151,599 | 61,107 | 2 |
| McKay Farms Inc. | 122,177 | 61,089 | 1 |
| WEST COAST BEET SEED CO | 122,008 | 61,004 | 2 |
| Valmont Industries | 120,212 | 60,106 | 1 |
| COIN MILLWORK CO | 120,166 | 60,083 | 1 |
| TERMINAL FLOUR MILLS CO | 120,115 | 60,058 | 2 |
| HAP TAYLOR INC | 119,827 | 59,914 | 1 |
| Blackman's 4-Way Grocery | 137,633 | 59,870 | 1 |
| Farrelly & Farrelly, LLC | 135,723 | 59,718 | 1 |
| Neuschwander, Carl | 119,079 | 59,540 | 1 |
| HAWK OIL CO | 140,269 | 59,534 | 10 |
| NAUMES ORCHARDS OF OREGON INC | 119,000 | 59,500 | 1 |
| Twigg Farm | 118,557 | 59,279 | 1 |
| Wirth, Dennis & Karen | 120,310 | 58,915 | 2 |
| Jenks-Olsen Farms, Inc. | 117,331 | 58,666 | 1 |
| Whittier Wood Products Co. | 146,440 | 58,653 | 2 |
| Wallace, Richard | 118,220 | 58,519 | 1 |
| Pendleton Flour Mills, Inc. | 116,278 | 58,139 | 1 |
| Brentano Farms, Inc. | 121,852 | 57,880 | 1 |
| Kayner, Kurt | 115,752 | 57,876 | 1 |
| F & Z RENTALS CO | 127,826 | 57,522 | 1 |
| HERBERT MALARKEY ROOFING CO | 114,881 | 57,441 | 1 |
| RED CARPET CAR WASH | 114,699 | 57,350 | 1 |
| Enserv, LLC | 124,257 | 57,158 | 1 |
| Reiling, Norman & Itha | 113,623 | 56,812 | 1 |
| Astoria Texaco | 126,856 | 56,451 | 1 |
| The Jerry Brown Company, Inc. | 113,696 | 56,279 | 1 |
| Smyth Hereford Ranch | 114,706 | 56,206 | 1 |
| Radke Farms | 114,793 | 56,164 | 3 |
| Portland Bolt & Manufacturing Co. | 111,750 | 55,875 | 2 |
| VAN BEEK DAIRY FARM | 111,713 | 55,857 | 1 |
| NACCO Materials Handling Group, Inc. | 116,738 | 54,867 | 1 |
| Arnett, Mark B. | 116,937 | 54,376 | 1 |
| RUEF FUR RANCH | 107,374 | 53,687 | 1 |
| DELTA ENGINEERING & MFG CO | 107,284 | 53,642 | 2 |
| Jersey Development Corp. | 117,207 | 53,329 | 1 |
| PAVING DIVISION | 106,580 | 53,290 | 1 |

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| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| ENVIRONMENTAL RUBBER BONDING CO (ERBCO) | 116,997 | 52,823 | 2 |
| J & J Farming, LLC | 194,324 | 52,467 | 1 |
| Newberg Garbage Service, Inc. | 104,738 | 52,369 | 3 |
| MCCALL HEATING CO | 123,846 | 52,015 | 1 |
| Kroft, Leroy & Lowell | 103,401 | 51,701 | 1 |
| CJ'S ALPINE SERVICES INC | 114,532 | 51,539 | 1 |
| Container Recovery, INC. | 858,046 | 51,483 | 1 |
| MILLER REDWOOD CO | 102,777 | 51,389 | 1 |
| CONE LUMBER CO | 102,524 | 51,262 | 1 |
| Bassett-Hyland Energy Co. | 103,286 | 51,127 | 1 |
| PACIFIC STEEL FOUNDRY CO | 102,250 | 51,125 | 2 |
| LAUGHLIN-HALL INC | 124,153 | 50,903 | 1 |
| Smith Hill Recycling, Inc. | 101,435 | 50,718 | 1 |
| Neuschwander, Lyle D. | 183,705 | 50,615 | 3 |
| JERRY NOBLE DAIRY | 101,047 | 50,524 | 1 |
| Eagle Foundry Company | 100,386 | 50,193 | 1 |
| Stimson Lumber Co. | 100,009 | 50,005 | 1 |
| Ideal Door Components, Inc. | 100,000 | 50,000 | 1 |
| CITY GARBAGE SERVICE | 99,720 | 49,860 | 2 |
| TRUMIX CONSTRUCTION CO | 99,552 | 49,776 | 2 |
| SHELDON OIL CO | 126,890 | 49,702 | 5 |
| CAPUTO TEXACO | 111,318 | 49,537 | 1 |
| CRESWELL COMMERCIAL SERVICE INC | 112,485 | 49,493 | 1 |
| EVERETT E MILES, JR | 111,633 | 49,452 | 2 |
| Sayer Farms | 101,501 | 49,228 | 1 |
| Desbiens, Barry J. | 107,227 | 49,200 | 3 |
| LP BUSCH INC | 109,041 | 49,068 | 1 |
| Woodburn Fertilizer, Inc. | 97,935 | 48,968 | 1 |
| BICKFORD ORCHARDS INC | 109,507 | 48,676 | 8 |
| Cascade Construction Co., Inc. | 96,475 | 48,238 | 1 |
| Portland Willamette Buyer's Industries | 101,328 | 48,131 | 1 |
| Capitol Recycling & Disposal, Inc. | 94,711 | 47,356 | 5 |
| Bowers: Roy A. Bowers & Sons, Inc. | 94,458 | 47,229 | 2 |
| CASCADE CORP | 94,402 | 47,201 | 1 |
| Hilltop Chevron Foodmart | 107,273 | 47,200 | 1 |
| David L. Towry, Sr. | 95,300 | 47,174 | 1 |
| Eagle Foundry Co. | 94,252 | 47,126 | 1 |
| Avison Wood Specialties, INC. | 93,968 | 46,984 | 2 |
| LUMBER TECH INC | 92,619 | 46,310 | 1 |
| NAUMES JOE | 121,000 | 46,100 | 2 |
| K Farms Inc. | 92,130 | 46,065 | 2 |
| PACIFICORP | 99,850 | 45,931 | 1 |
| WEST CENTRAL SERVICE INC | 113,149 | 45,825 | 1 |
| DARIGOLD INC | 97,926 | 45,626 | 2 |
| Fisher Corp. | 109,420 | 45,409 | 1 |
| Langdon & Sons, Inc. | 96,932 | 45,324 | 2 |
| PED Manufacturing, LTD | 90,332 | 45,166 | 2 |
| Hockett Farms, Inc. | 112,821 | 45,159 | 3 |
| Bowers, Roy Dean | 90,000 | 45,000 | 1 |
| United Disposal Service Inc. | 89,949 | 44,975 | 3 |

**Certificates Issued by Applicant
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1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| McKee Farms | 115,705 | 44,919 | 3 |
| Marguth: Jerry & Betty | 89,834 | 44,917 | 1 |
| Kizer Son | 89,661 | 44,831 | 1 |
| WILLAMETTE BEVERAGE CO | 89,313 | 44,657 | 1 |
| Tigard ARCO | 96,606 | 44,414 | 2 |
| WALTER WELLS SONS | 88,763 | 44,382 | 4 |
| Conrad Wood Preserving Co, INC. | 88,657 | 44,329 | 2 |
| Pendelton Grain Growers, Inc. | 98,682 | 44,257 | 4 |
| MEYER ORCHARDS | 87,610 | 43,805 | 1 |
| Jackson Oil, Inc. | 89,295 | 43,755 | 1 |
| Kroft, Vernon | 86,599 | 43,300 | 1 |
| Neher, Larry & Mary Lou | 137,641 | 42,781 | 2 |
| Ditchen Brothers:DBA Five Oaks Farms | 85,404 | 42,702 | 1 |
| HANEL LUMBER CO INC | 85,349 | 42,675 | 2 |
| AT SMA | 85,286 | 42,643 | 1 |
| PACIFIC MEAT CO | 85,092 | 42,546 | 2 |
| Bend Garbage | 85,009 | 42,505 | 1 |
| Kropf: Leroy & Lowell | 109,765 | 42,117 | 3 |
| Kroft, Veldon D. | 99,003 | 42,076 | 1 |
| CHEVRON ASPHALT CO | 84,076 | 42,038 | 1 |
| BROOKMAN CAST INDUSTIRES INC | 83,576 | 41,788 | 1 |
| SUNSET CRUSHED ROCK CO | 83,500 | 41,750 | 1 |
| PLUM FIERCE SHELL | 95,643 | 41,605 | 1 |
| RAINEY'S CORNER MARKET | 92,186 | 41,554 | 2 |
| Kennel Farms | 82,411 | 41,206 | 1 |
| Vernon and Galen Kropf | 149,573 | 41,133 | 1 |
| Vandehey: Robert C. Vandehey Farm | 82,013 | 41,007 | 1 |
| TRUS JOIST CORP | 86,495 | 40,970 | 3 |
| BIDDLE ROAD GAS-4-LESS | 84,412 | 40,940 | 1 |
| NORDSTRAND CEDAR PRODUCTS INC | 81,822 | 40,911 | 1 |
| J & S Farms | 81,765 | 40,883 | 1 |
| THIRD STREET SHELL | 93,669 | 40,746 | 1 |
| Wimer Logging Company | 80,822 | 40,411 | 3 |
| MCCULLUM'S TEXACO SERVICE INC | 91,065 | 40,362 | 2 |
| Winmar of Jätzen Beach, Inc. | 90,656 | 40,342 | 1 |
| Blue Sky Farms, Inc. | 80,436 | 40,218 | 5 |
| Bourdon, Robert W. | 80,016 | 40,008 | 1 |
| Lewis, Monte J. | 79,925 | 39,963 | 2 |
| Pohlschneider: J. & K. Pohlschneider Inc. | 79,277 | 39,639 | 1 |
| Bodtker, Michael & Lisa | 79,239 | 39,620 | 1 |
| Ditchen, Todd | 79,000 | 39,500 | 1 |
| BIRD SONS INC | 78,893 | 39,447 | 1 |
| Kelly Farms, Inc. | 78,865 | 39,433 | 1 |
| BRM Co. | 78,800 | 39,400 | 1 |
| Dinty's Enterprises, Inc. | 88,477 | 39,372 | 1 |
| MINI MART OF VERNONIA | 88,337 | 39,310 | 1 |
| EAGLE FOUNDRY INC | 78,487 | 39,244 | 1 |
| MAY SLADE OIL CO INC | 77,917 | 38,959 | 4 |
| OK'S AUTO SUPPLY INC | 91,543 | 38,906 | 1 |
| Rogge Forest Products, Inc. | 76,493 | 38,247 | 1 |
| Champion International CorpL | 76,437 | 38,219 | 1 |

**Certificates Issued by Applicant
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| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---------------------------------------|---------------|-------------------|---------------------|
| MCCALL OIL CHEMICAL CO | 75,981 | 37,991 | 1 |
| KIRK Century Farms Inc. | 78,280 | 37,852 | 2 |
| LIBBY MCNEILL LIBBY INC | 75,467 | 37,734 | 2 |
| DUYCK VERNON E | 75,224 | 37,612 | 1 |
| OREGON CHERRY GROWERS INC | 75,110 | 37,555 | 1 |
| D E Wood Products | 75,086 | 37,543 | 1 |
| PECO Inc. | 75,000 | 37,500 | 1 |
| Instromedix, Inc. | 75,000 | 37,500 | 1 |
| SIDNEY VAN DYKE DAIRY | 74,700 | 37,350 | 1 |
| W.J. Wren & W.H. Wren, Partners | 96,647 | 37,209 | 1 |
| Jensen, Neils/DBA: Neils Jensen Farms | 111,000 | 37,185 | 1 |
| Thompson, Priscilla E. | 74,014 | 37,007 | 1 |
| Valley Lime, Inc. | 73,882 | 36,941 | 1 |
| JOHNSON OIL OF MANZANITA INC | 80,183 | 36,884 | 1 |
| WILLAMETTE POULTRY CO. INC | 73,686 | 36,843 | 1 |
| Jake's Truck Stop | 86,521 | 36,771 | 1 |
| NATIONAL FROZEN FOODS CORP | 73,480 | 36,740 | 1 |
| DRKC, LLC | 74,921 | 36,711 | 1 |
| OTT DAIRY INC | 73,240 | 36,620 | 1 |
| Norman H. & Vivian Faulkner | 79,508 | 36,574 | 1 |
| The Cleanery - Santa Clara | 72,898 | 36,449 | 1 |
| MONARCH SHINGLE CO | 72,884 | 36,442 | 3 |
| L 3 Farms Inc. | 72,860 | 36,430 | 1 |
| Kropf, Gary J. | 104,000 | 36,400 | 1 |
| Talen Gas-\$-Less | 83,621 | 36,375 | 1 |
| Kokkeler, Louis L. | 72,750 | 36,375 | 1 |
| Van Leeuwen, Tim & Lori | 72,712 | 36,356 | 1 |
| TIME OIL CO | 363,034 | 36,303 | 2 |
| Malpass Farms | 71,745 | 35,873 | 1 |
| CLATSKANIE MINI MART | 83,082 | 35,725 | 1 |
| MCGRAWEDISON CO | 71,401 | 35,701 | 2 |
| ESTACADA OIL CO | 92,607 | 35,191 | 1 |
| Baker, Richard D. | 72,677 | 35,009 | 2 |
| Oregon Brewing Company | 69,988 | 34,994 | 1 |
| JANTZEN INC | 69,961 | 34,981 | 3 |
| PARSONS PINE PRODUCTS INC | 69,955 | 34,978 | 1 |
| JENCK KENNETH M | 69,588 | 34,794 | 1 |
| SISTER'S OIL CO INC | 80,571 | 34,646 | 1 |
| Vachter Spray Service, Inc. | 69,076 | 34,538 | 1 |
| MCDANIEL GRAIN FEED CORP | 69,037 | 34,519 | 1 |
| Neuschwander, Roger F. | 96,634 | 34,503 | 4 |
| Eichler, Ken W. | 68,945 | 34,473 | 1 |
| FRED N BAY NEWS CO | 68,909 | 34,455 | 1 |
| Welt & Welt, Inc. | 86,717 | 34,253 | 1 |
| PAPE' BORS INC | 78,674 | 34,223 | 1 |
| STATION MART | 85,443 | 34,177 | 1 |
| Argay Disposal Service | 91,036 | 34,139 | 1 |
| Scheffel Farms, Inc. | 68,026 | 34,013 | 2 |
| ROBERT W BYRAM | 77,231 | 33,595 | 1 |
| Quantum Resource Recovey, LLC | 67,111 | 33,556 | 2 |
| PERMAPOST PRODUCTS CO | 67,066 | 33,533 | 2 |

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| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| SPALDING & SON INC | 66,818 | 33,409 | 2 |
| ED DIRKSEN & SONS INC | 82,111 | 33,255 | 1 |
| Westmart Foodstores, Inc. | 67,158 | 33,243 | 1 |
| Reerslev Farms, Inc. | 66,472 | 33,236 | 1 |
| Keen, Gary | 66,208 | 33,104 | 1 |
| LLOYD A FRY ROOFING CO | 66,151 | 33,076 | 1 |
| Strome-Fisher Farms Inc. | 65,803 | 32,902 | 1 |
| WORKS | 65,751 | 32,876 | 1 |
| LAGE ORCHARDS INC | 65,623 | 32,812 | 2 |
| CONSOLIDATED PINE INC | 65,608 | 32,804 | 1 |
| FRANK LUMBER CO INC | 65,430 | 32,715 | 1 |
| SOURCE RECYCLING INC | 65,390 | 32,695 | 1 |
| HEMENWAY FARMS | 65,185 | 32,593 | 1 |
| NORTH SANTIAM VENEER INC | 65,100 | 32,550 | 1 |
| The Richwine Co. | 64,761 | 32,381 | 1 |
| THUN JERSEYS | 64,681 | 32,341 | 1 |
| Briggs, David R. | 121,293 | 32,143 | 1 |
| HCR INCDBA BEAVER STATE PLASTICS | 64,266 | 32,133 | 1 |
| Recycled Plastics Marketing | 64,000 | 32,000 | 1 |
| Rohner, Edwin J. | 63,810 | 31,905 | 1 |
| PIMM Farms Inc. | 63,754 | 31,877 | 2 |
| FAIRGROUNDS SERVICE INC/FAIRGROUNDS CHEV | 78,474 | 31,782 | 1 |
| Donald F. Wiltse | 63,489 | 31,744 | 1 |
| Roth, Cecil E. | 63,251 | 31,626 | 1 |
| HEATING OILS, | 62,980 | 31,490 | 1 |
| Winterbottom, Howard J. dba/H & H Auto | 67,289 | 31,289 | 1 |
| Kayner, Kurt & Ellen | 62,537 | 31,269 | 1 |
| Esterwin, Inc. | 62,516 | 31,258 | 1 |
| Universal Seed Co. | 62,326 | 31,163 | 1 |
| DIAMOND CABINETS/WHITE CONSOLIDATED IND | 62,320 | 31,160 | 1 |
| Burkland Lumber Co. | 62,148 | 31,074 | 1 |
| Grass Valley Station | 66,087 | 31,061 | 1 |
| Carl Jr. Farms | 74,077 | 31,019 | 2 |
| EMERY'S TEXACO | 72,946 | 31,002 | 1 |
| OREGON WATER CORP | 61,886 | 30,943 | 2 |
| SUNSET FUEL CO | 62,369 | 30,873 | 1 |
| FLINTKOTE CO | 61,740 | 30,870 | 1 |
| MORTON MILLING CO | 61,721 | 30,861 | 3 |
| Prince Seeds, Inc. | 114,250 | 30,848 | 1 |
| NORWEST PUBLISHING CO | 61,525 | 30,763 | 1 |
| PHOENIX TIGER MART | 74,922 | 30,718 | 1 |
| DON GILES GAS & OIL | 70,560 | 30,694 | 1 |
| STAR OIL CO | 95,641 | 30,683 | 2 |
| SOUTHERN OREGON PLYWOOD INC | 61,300 | 30,650 | 1 |
| Alpha Nursery, Inc. | 61,208 | 30,604 | 1 |
| FULLERS BP STATION | 72,797 | 30,575 | 1 |
| HAZEL E WHALEY | 73,289 | 30,415 | 1 |
| J H BAXTER CO | 60,827 | 30,414 | 1 |
| TIME OIL | 60,723 | 30,362 | 1 |

**Certificates Issued by Applicant
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| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--------------------------------------|---------------|-------------------|---------------------|
| Vanport Manufacturing Co. | 60,723 | 30,362 | 1 |
| L. & D., Inc. of Oregon | 61,880 | 30,321 | 1 |
| Home Fuel Oil Co. | 60,920 | 30,155 | 1 |
| RICHARD L ALLEN | 73,547 | 30,154 | 1 |
| MAYFLOWER FARMS | 60,089 | 30,045 | 1 |
| PRATUM CO-OP WAREHOUSE INC | 70,689 | 30,043 | 1 |
| WINTER PRODUCTS CO | 60,003 | 30,002 | 1 |
| OI GLASS CONTAINER INC | 59,880 | 29,940 | 1 |
| Glacier Ranch Inc. | 59,871 | 29,936 | 3 |
| 72,201 | 29,602 | 1 | |
| DOWNTOWN TEXACO | 67,946 | 29,557 | 1 |
| Looney Farms Inc. | 58,738 | 29,369 | 1 |
| Hays, Robert W. | 59,853 | 29,328 | 1 |
| FIRPLY INC | 58,654 | 29,327 | 2 |
| Redmond Tallow Co., Inc. | 58,408 | 29,204 | 1 |
| KAMLADE SR NICOLAAS Farm | 57,758 | 28,879 | 1 |
| 60,154 | 28,874 | 2 | |
| WILD RIVER ORCHARDS INC | 96,244 | 28,873 | 1 |
| Herndon, Tom | 57,508 | 28,754 | 2 |
| Widmere Brothers Brewing Company | 57,452 | 28,726 | 1 |
| D & G RENTALS | 66,647 | 28,658 | 1 |
| Wirth, Dennis D. | 57,239 | 28,620 | 1 |
| ZIPOLOG MILLS INC | 71,320 | 28,528 | 1 |
| Phalen, Rodney G. | 57,053 | 28,527 | 1 |
| WILSONVILLE TEXACO | 58,017 | 28,428 | 1 |
| ROGUE VALLEY CO INC | 56,778 | 28,389 | 1 |
| HERVIN CO | 56,682 | 28,341 | 3 |
| The Bag Connection, Inc. | 56,465 | 28,233 | 1 |
| PUGH CENTURY DAIRY | 56,250 | 28,125 | 1 |
| PACIFIC COATINGS, INC | 56,209 | 28,105 | 1 |
| VAN WEST OIL CO INC | 81,421 | 27,859 | 2 |
| Kropf, Loyde | 55,716 | 27,858 | 1 |
| Mt. Jefferson Farms | 55,309 | 27,655 | 2 |
| Newport Drycleaners | 55,143 | 27,572 | 1 |
| LIBBY MCNEILL LIBBY | 55,000 | 27,500 | 1 |
| Irwin-Hodson Metal Manufacturing Co. | 54,955 | 27,478 | 1 |
| Rohner, Steven J. | 121,750 | 27,394 | 1 |
| PURDY CORP | 91,000 | 27,300 | 1 |
| SENECA SAWMILL CO | 54,473 | 27,237 | 1 |
| MOLECULAR PROBES INC | 54,276 | 27,138 | 1 |
| Horton: Chris & Joan | 183,496 | 26,607 | 1 |
| PAUL MEDINA DAIRY | 53,124 | 26,562 | 1 |
| DESCHUTES COUNTRY STORE INC | 53,576 | 26,520 | 1 |
| Leppin, Garold H. | 52,759 | 26,380 | 1 |
| TEXACO FOODMART | 64,944 | 26,302 | 1 |
| WEST FOODS INC | 52,142 | 26,071 | 1 |
| CENTER INC | 57,118 | 25,989 | 1 |
| QUENTIN PROBST | 64,953 | 25,981 | 1 |
| W.W. LUMBER CO | 51,831 | 25,916 | 1 |
| ROGUE VALLEY OIL CO INC | 51,686 | 25,843 | 1 |
| Kroft, Galen & Vernon | 51,675 | 25,838 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| MIGCO Northwest, Inc. | 52,114 | 25,796 | 1 |
| GIENGER FARMS INC | 51,538 | 25,769 | 1 |
| Rexius Forrest By-Products, Inc. | 51,475 | 25,738 | 3 |
| Davidson, Raymond T. | 51,473 | 25,737 | 2 |
| Hubbard: C.M. Hubbard Son | 51,381 | 25,691 | 1 |
| Duerst, John | 86,637 | 25,626 | 2 |
| Döerfler, David A. | 86,637 | 25,626 | 2 |
| VALLEY IRON STEEL CO | 51,236 | 25,618 | 1 |
| Dunn Leblanc | 51,158 | 25,579 | 1 |
| ROGUE RIVER EXXON | 51,545 | 25,515 | 1 |
| MEDFORD PEAR CORP | 51,000 | 25,500 | 1 |
| MT VIEW ORCHARDS | 50,778 | 25,389 | 1 |
| Reiling, Neal | 50,660 | 25,330 | 1 |
| Flying W. Ranch, Inc. | 72,000 | 25,200 | 1 |
| BAKER REDIMIX INC | 50,061 | 25,031 | 1 |
| Sunshine Dairy Foods Inc. | 50,000 | 25,000 | 1 |
| Dardanelles | 49,860 | 24,930 | 1 |
| O C WEBB-BOWEN INC | 62,318 | 24,927 | 1 |
| Michael J. Monroe dba Bert's Auto Salvage | 49,650 | 24,825 | 1 |
| T & C WASH SYSTEMS INC | 62,019 | 24,808 | 1 |
| Gearhart Service Station | 49,467 | 24,734 | 1 |
| R.D. Farms | 79,700 | 24,707 | 1 |
| SABROSO CO | 49,328 | 24,664 | 2 |
| GAMBLE FARMS | 49,308 | 24,654 | 1 |
| USA | 49,107 | 24,554 | 1 |
| Resco Plastics, Inc. | 49,064 | 24,532 | 5 |
| D & J TEXACO | 58,377 | 24,518 | 1 |
| P. M. Ranch, Inc. | 48,504 | 24,252 | 1 |
| Pendleton Sanitary Service, Inc. | 48,486 | 24,243 | 1 |
| Sheldon Oil Co. | 48,149 | 24,074 | 1 |
| HERBERT MALARKEY PAPER CO | 47,521 | 23,761 | 1 |
| Danny Dave Farm | 47,248 | 23,624 | 1 |
| INDEPAK INC | 47,141 | 23,571 | 1 |
| EVERETT E NILES, JR | 57,983 | 23,483 | 1 |
| Ferschweiler, Edward | 48,408 | 23,478 | 1 |
| ROBERT GUTHMILLER | 58,500 | 23,400 | 1 |
| GLIDE BP | 54,918 | 23,340 | 1 |
| Yaquina Sanitary, Inc./Thompson's San. | 46,570 | 23,285 | 1 |
| Bowers, R. Dean | 46,545 | 23,273 | 1 |
| Prince E. Seeds Inc. | 46,396 | 23,198 | 1 |
| Coulson Investment Co. | 46,273 | 23,137 | 1 |
| CFADLER | 47,177 | 23,117 | 1 |
| Oregon Steel Foundry Company | 46,106 | 23,053 | 1 |
| E & F EXXON | 46,567 | 23,051 | 1 |
| Briggs Farms, Inc. | 68,600 | 22,900 | 2 |
| Neher: Larry Neher, Inc. | 45,432 | 22,716 | 2 |
| Thomsen Orchard | 45,289 | 22,645 | 4 |
| Rejuvenation, Inc. | 45,205 | 22,603 | 1 |
| Wilmes, Walter J. | 44,952 | 22,476 | 1 |
| J & E ENTERPRISES | 50,520 | 22,229 | 1 |
| MILES OIL CO INC | 45,272 | 22,183 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---------------------------------------|---------------|-------------------|---------------------|
| BARKER MANUFACTURING CO | 44,095 | 22,048 | 1 |
| NEWOOD PRODUCTS OF OR | 43,918 | 21,959 | 1 |
| MCGRADY KENNETHSHARON | 43,706 | 21,853 | 1 |
| PACIFIC DETROIT DIESEL ALLISON INC | 43,441 | 21,721 | 1 |
| Vanasche Farms | 66,230 | 21,689 | 2 |
| DON WILSON ENTERPRISES INC | 52,800 | 21,648 | 1 |
| MCMILLAN SHINGLES CO | 43,161 | 21,581 | 1 |
| May Slade Oil Co. Inc. | 42,943 | 21,472 | 1 |
| CLARK & POWELL | 42,877 | 21,439 | 1 |
| Schmidt, Robert | 42,791 | 21,396 | 2 |
| Miller's Sanitary Service, Inc. | 42,742 | 21,371 | 1 |
| Ropp, Lew | 45,403 | 21,339 | 1 |
| Anderson, Jonie/dba Rogue Cleaners | 42,596 | 21,298 | 1 |
| K-G'S ONE STOP MARKET | 51,775 | 21,228 | 1 |
| Lindsay Brothers | 42,260 | 21,130 | 1 |
| BONBRIGHT OIL CO | 43,032 | 21,086 | 1 |
| FORREST PAINT CO | 41,672 | 20,836 | 1 |
| La Point, Gary | 66,109 | 20,824 | 1 |
| STAUFFER CHEMICAL CO | 41,591 | 20,796 | 1 |
| WILSON MOTORS | 41,545 | 20,773 | 1 |
| HELLER & SONS DISTRIBUTING INC | 43,500 | 20,663 | 1 |
| ALLEN FRUIT CO INC | 41,213 | 20,607 | 1 |
| JASPAR SEED | 41,136 | 20,568 | 1 |
| MOORE CLEAR CO | 41,075 | 20,538 | 1 |
| Campbell Crane & Rigging Service Inc. | 41,000 | 20,500 | 1 |
| WILLIAM H BURRELL, JR | 40,917 | 20,459 | 1 |
| Solidur Pacific Co. | 40,759 | 20,380 | 1 |
| CO | 40,415 | 20,208 | 2 |
| Smith Hill Systems LTD | 39,485 | 19,743 | 1 |
| Plume, Edward Jean | 39,426 | 19,713 | 1 |
| Pioneer Truck Equipment, Inc. | 39,244 | 19,622 | 1 |
| LITHIA EXXON | 39,624 | 19,614 | 1 |
| Central Oregon Dry Cleaners | 39,200 | 19,600 | 1 |
| SMART MART INC | 60,998 | 19,519 | 1 |
| Miller: Scott Miller, Inc. | 40,970 | 19,323 | 2 |
| OREGON | 38,631 | 19,316 | 1 |
| Atkinson, Phillip | 132,764 | 19,251 | 1 |
| ROBERT WASSMER DAIRY | 38,198 | 19,099 | 1 |
| CO | 38,140 | 19,070 | 1 |
| CHARBONNEAU GOLF CLUB INC | 38,062 | 19,031 | 1 |
| STAUFFER CHEMICAL | 37,998 | 18,999 | 1 |
| Jubitz Truck Stop | 37,678 | 18,839 | 1 |
| Hopton Technologies, Inc. | 37,667 | 18,834 | 1 |
| BARNETT TIGER MART | 37,958 | 18,789 | 1 |
| Woodburn Fertilizer & Grain, Inc. | 37,557 | 18,779 | 1 |
| Weichman, Richard T., Jr. | 37,500 | 18,750 | 1 |
| Smith: Loren Smith Farms | 37,417 | 18,709 | 5 |
| OREGON POTATO CO | 186,212 | 18,621 | 1 |
| RONALD H GUSTOFSON | 49,652 | 18,620 | 1 |
| Stinebaugh, S.J. | 48,771 | 18,533 | 1 |
| COVERALL UNIFORM SUPPLY CO INC | 37,033 | 18,517 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--|---------------|-------------------|---------------------|
| Riverside Cleaners, Inc. | 37,000 | 18,500 | 1 |
| EMPIRE BUILDING MATERIAL CO | 36,849 | 18,425 | 1 |
| CHENEY FOREST PRODUCTS | 36,661 | 18,331 | 1 |
| Don & Laura Christensen | 36,590 | 18,295 | 1 |
| DURSON FARMS | 36,540 | 18,270 | 1 |
| J & L DAIRY | 36,535 | 18,268 | 1 |
| Schwanke, Howard E. | 40,466 | 18,239 | 2 |
| BEACHMAN ORCHARDS INC | 41,612 | 17,982 | 3 |
| HOBIN LUMBER CO | 35,947 | 17,974 | 2 |
| KAISER CEMENT GYPSUM CORP | 36,478 | 17,897 | 3 |
| CRATER LAKE AVENUE EXXON | 36,094 | 17,867 | 1 |
| GRUNDER EQUIPMENT REPAIR | 35,448 | 17,724 | 2 |
| CEDAR HILLS ARCO | 36,059 | 17,669 | 1 |
| ROGUE RIVER ORCHARDS ORE LTD | 175,500 | 17,550 | 1 |
| COMCO CONSTRUCTION DBA RIVER BEND SAND | 35,055 | 17,528 | 1 |
| Schaumburg Investments | 35,014 | 17,507 | 1 |
| Quail Mountain, Inc. | 35,000 | 17,500 | 1 |
| CORVALLIS KENNELS | 50,692 | 17,489 | 1 |
| BEAR CREEK OPERATIONS INC | 34,969 | 17,485 | 7 |
| Lehl Disposal Co., Inc. | 34,946 | 17,473 | 1 |
| Tri County Construction Clean-up Inc. | 34,866 | 17,433 | 1 |
| Goffena, Stanley | 34,787 | 17,394 | 3 |
| GRIFFIN FARM | 34,748 | 17,374 | 1 |
| EDWARDS ORCHARDS | 34,719 | 17,360 | 1 |
| WILLIAMSON ROBERT G & ELIZABETH | 34,712 | 17,356 | 1 |
| Smith: Bill Smith/ITH | 34,471 | 17,236 | 1 |
| CONTINENTAL GROUP INC | 34,459 | 17,230 | 1 |
| FRED MESSERLE SONS | 34,444 | 17,222 | 2 |
| Singer, John | 34,226 | 17,113 | 1 |
| International Paper | 34,153 | 17,077 | 1 |
| Loren's Sanitation Service, Inc. | 34,025 | 17,013 | 2 |
| BARBEY PACKING CORP | 33,940 | 16,970 | 1 |
| Nulf: Douglas K. | 33,362 | 16,681 | 1 |
| JC JONES OIL CO INC | 33,026 | 16,513 | 2 |
| Oldham's Classic Cleaners | 32,993 | 16,497 | 1 |
| HILLCREST CORP | 82,049 | 16,410 | 1 |
| DERYL FERGUSON | 40,423 | 16,371 | 1 |
| HAYWORTH SEED WAREHOUSE INC | 32,399 | 16,200 | 1 |
| ERIC & ROY PETERSON FARM | 32,319 | 16,160 | 1 |
| ORGANIC FERTILIZER CO | 37,582 | 16,086 | 2 |
| Union Cardlock | 32,106 | 16,053 | 1 |
| Keeley: Don & Joann | 40,611 | 16,041 | 1 |
| Richards, Martin | 101,278 | 16,032 | 2 |
| Truax Petroleum Sales, Inc | 33,564 | 15,978 | 6 |
| Craig's Cleaners | 31,900 | 15,950 | 1 |
| MCCLOSKEY VARNISH CO OF | 31,882 | 15,941 | 2 |
| Zulinski, Wallacel | 59,000 | 15,930 | 1 |
| JAMES D HOUCK | 31,853 | 15,927 | 1 |
| Sabrosco Co. | 31,810 | 15,905 | 2 |
| Sauter, Michele (50%) Gerald (50%) | 31,598 | 15,799 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost:
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| HARRIS ENTERPRISES INC | 31,484 | 15,742 | 19 |
| LEMONS MILLWORK INC | 31,200 | 15,600 | 1 |
| Donaldson's Chevron Service | 31,158 | 15,579 | 1 |
| Campus Cleaners & Laundry, Inc. | 31,000 | 15,500 | 1 |
| Bowers, Eric & Vicki | 30,852 | 15,426 | 1 |
| HANCE OIL CO | 31,450 | 15,411 | 1 |
| RONDE VALLEY LUMBER CO | 30,410 | 15,205 | 1 |
| Stragey, Terry L. | 30,398 | 15,199 | 1 |
| West, Dwight | 30,002 | 15,001 | 3 |
| Ernst Hardware/dba Cascade Tractor Co. | 30,516 | 14,910 | 3 |
| PRIDE OF OREGON STATIONS INC | 30,347 | 14,770 | 7 |
| 82ND & LIEBE - ARCO | 29,538 | 14,769 | 1 |
| West 11th Coin Laundry & Cleaners, Inc. | 29,500 | 14,750 | 1 |
| CO | 29,111 | 14,556 | 1 |
| Dallas City Cleaners | 29,000 | 14,500 | 1 |
| ROLLAND S PIATT | 29,834 | 14,320 | 1 |
| REIMANN MC KENNEY | 28,600 | 14,300 | 1 |
| RIEGER JOHN | 28,565 | 14,283 | 1 |
| Leavy Farms Inc. | 28,409 | 14,205 | 1 |
| Webster Cleaners | 28,000 | 14,000 | 1 |
| OREGON BULB FARMS | 27,754 | 13,877 | 1 |
| Ellison Timber CO | 27,639 | 13,820 | 1 |
| BRACELIN YEAGER ASPHALT CO | 27,520 | 13,760 | 1 |
| HERCULES | 27,504 | 13,752 | 1 |
| Eder Brothers, Inc | 27,100 | 13,550 | 2 |
| Lane International Corp. | 26,937 | 13,469 | 1 |
| BAKER AIRCRAFT INC | 26,673 | 13,337 | 1 |
| Ditchen: Robert A. & Gregg | 26,664 | 13,332 | 1 |
| Eder, Roger | 26,620 | 13,310 | 1 |
| CULBERTSON ORCHARDS | 44,337 | 13,301 | 1 |
| MT HOOD REFUSE REMOVAL INC | 26,582 | 13,291 | 1 |
| Ackerman Orchards,, Inc. . | 26,510 | 13,255 | 1 |
| GRANT'S PETROLEUM INC | 31,545 | 13,091 | 1 |
| NORMAN ARMSTRONG DAIRY | 26,172 | 13,086 | 1 |
| GILSONITE INC | 26,059 | 13,030 | 2 |
| WESTSIDE MOBIL CARWASH | 26,435 | 12,953 | 1 |
| Tillamook Veneer Co. | 25,905 | 12,953 | 1 |
| Pepsi-Cola Bottling Co. of Eugene | 25,872 | 12,936 | 1 |
| DAELCO INC | 25,725 | 12,863 | 1 |
| INC | 26,592 | 12,764 | 1 |
| HYSTER CO | 26,196 | 12,753 | 2 |
| MCCRACKEN MOTOR FREIGHT INC | 25,500 | 12,750 | 1 |
| JACKSON OIL INC | 26,461 | 12,749 | 2 |
| Winnoco, Inc. | 25,881 | 12,686 | 2 |
| GRANTS PASS MOULDING INC | 25,321 | 12,661 | 1 |
| CALBAG METALS CO | 25,311 | 12,656 | 1 |
| FRED MESSERLE & SONS | 25,152 | 12,576 | 2 |
| Warn Industries, Inc. | 25,087 | 12,544 | 1 |
| DIRKSEN INVESTMENTS | 32,396 | 12,472 | 1 |
| BLUE LAKE PACKERS INC | 24,892 | 12,446 | 2 |
| CHEMBOND CORP | 24,882 | 12,441 | 5 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| Synthetech, Inc. | 24,845 | 12,423 | 1 |
| GRANGE CO-OP SUPPLY ASSOCIATION | 24,639 | 12,320 | 2 |
| H & S ENTERPRISES INC | 25,120 | 12,309 | 1 |
| BURNS BROS INC | 25,366 | 12,303 | 1 |
| T P PACKING CO | 24,429 | 12,215 | 1 |
| Langmack Seed Co., Inc. | 36,565 | 12,188 | 2 |
| Marshall's Oil and Insulation Co. | 38,201 | 12,134 | 2 |
| Nyquist Country Farms | 24,170 | 12,085 | 1 |
| DELPHIA OIL INC | 24,147 | 12,074 | 3 |
| Eastman, Burl J. | 24,074 | 12,037 | 1 |
| Swan Island Cardlock | 24,033 | 12,017 | 1 |
| PURDY KENNETH ELANORE S | 119,700 | 11,970 | 1 |
| Kropf, Mr. & Mrs. Gary J. | 23,636 | 11,818 | 2 |
| Willamette Seed Co. | 23,445 | 11,723 | 1 |
| U S PLYWOODCHAMPION,PAPERS INC | 23,413 | 11,707 | 1 |
| HARRIS PINE MILLS | 23,375 | 11,688 | 1 |
| NORTHWEST NATURAL GAS CO | 23,362 | 11,681 | 1 |
| Loon Lake Lodge Resort | 23,347 | 11,674 | 1 |
| Trico Farms | 23,325 | 11,663 | 1 |
| DEJAGER | 23,247 | 11,624 | 1 |
| GOULD INC | 23,208 | 11,604 | 2 |
| Hubbard Cleaners & Laundromat | 23,068 | 11,534 | 1 |
| BEND MILLWORK SYSTEMS | 22,836 | 11,418 | 2 |
| OSTRANDER RESOURCES CO | 22,695 | 11,348 | 1 |
| MIAMI SHINGLE SHAKE CO | 22,500 | 11,250 | 1 |
| RKM, Inc. | 86,446 | 11,238 | 1 |
| PIONEER INTERNATIONAL INC | 22,910 | 11,224 | 2 |
| FENK CARL | 22,205 | 11,103 | 2 |
| Tee to Green II, Inc. | 22,149 | 11,074 | 1 |
| Carlton Truck Stop, INC. | 22,110 | 11,055 | 1 |
| CRATER LAKE ORCHARDS | 110,139 | 11,014 | 1 |
| MYRTLE CREEK GARAGE | 37,316 | 11,008 | 1 |
| Truax Oil | 23,164 | 11,003 | 2 |
| Inc. | 22,000 | 11,000 | 1 |
| CORDREY ENTERPRISES INC | 21,960 | 10,980 | 1 |
| SIXTH STREET SHELL | 23,106 | 10,975 | 1 |
| CASCADE ORCHARD INC | 21,899 | 10,950 | 1 |
| MERK WEAVER ENTERPRISES INC | 21,609 | 10,805 | 1 |
| Campbell's Cleaners, Inc. | 21,605 | 10,803 | 1 |
| ROGUE RUSSET ORCHARDS INC | 108,000 | 10,800 | 1 |
| WESTERN PULP PRODUCTS CO | 21,585 | 10,793 | 1 |
| Hobin Lumber Co. | 21,550 | 10,775 | 1 |
| Knox, Marion L. | 23,750 | 10,725 | 2 |
| OLSONLAWYER LUMBER INC | 21,373 | 10,687 | 1 |
| Van Wormer Service | 21,135 | 10,568 | 1 |
| Walker: Peter Walker & Son | 21,042 | 10,521 | 1 |
| DONALDSON'S CHEVRON | 23,875 | 10,505 | 1 |
| Schult Homes Corp., Marlette Homes, Inc | 20,938 | 10,469 | 1 |
| SHEIRBON JOE C | 30,007 | 10,332 | 2 |
| GEORGE'S TEXACO | 25,802 | 10,192 | 1 |
| BEND AGGREGATE PAVING CO | 20,342 | 10,171 | 1 |

**Certificates Issued by Applicant
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1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|-------------------------------------|---------------|-------------------|---------------------|
| HEARIN FOREST PRODUCTS INC | 33,870 | 10,161 | 1 |
| CASCADE LOCKS LUMBER CO | 20,151 | 10,076 | 1 |
| Roth, Kenneth | 27,036 | 10,003 | 1 |
| SER | 20,000 | 10,000 | 1 |
| Peter J. Kryl | 19,967 | 9,984 | 1 |
| G & P Farms | 24,585 | 9,927 | 3 |
| Miller, Miller | 32,768 | 9,830 | 1 |
| MILLER NORMAN | 19,635 | 9,818 | 2 |
| JAMES G & BERNICE D VOELZ | 22,768 | 9,790 | 1 |
| THOMAS MOTORS INC | 21,754 | 9,789 | 1 |
| KELLY FIELD PLANT PAC PRIDE | 19,479 | 9,740 | 1 |
| Schmidt, Ronald | 19,445 | 9,723 | 2 |
| Charles H Lilly | 21,983 | 9,673 | 1 |
| HT REA FARMING CORP | 19,139 | 9,570 | 1 |
| JIM'S MARKET | 23,872 | 9,549 | 1 |
| SPRINGFIELD FUEL CENTER INC | 19,089 | 9,545 | 1 |
| TOWER OIL CO | 18,993 | 9,497 | 1 |
| G & R AUTO WRECKERS INC | 18,984 | 9,492 | 3 |
| Phelan, Gerald E. | 158,195 | 9,492 | 1 |
| BURKHART JACK R | 18,933 | 9,467 | 1 |
| FOOD CONNECTION | 18,922 | 9,461 | 1 |
| TRAPP'S EASTSIDE VELTEX STATION | 19,267 | 9,344 | 1 |
| WILSONVILLE CARDLOCK | 18,594 | 9,297 | 1 |
| CASCADE FARM MACHINERY CO INC | 19,238 | 9,274 | 2 |
| TRASHCO INC | 18,543 | 9,272 | 1 |
| Burns Junction Station | 18,482 | 9,241 | 1 |
| Nosler, Inc. | 18,334 | 9,167 | 1 |
| SAMS SERVICE | 18,855 | 9,145 | 1 |
| Miller, Valentine & Delores | 28,507 | 9,122 | 1 |
| GEMCO WOOD PRODUCTS INC | 18,226 | 9,113 | 1 |
| LEONETTI FURNITURE CO | 18,187 | 9,094 | 1 |
| SUNRISE ACRES DAIRY | 18,043 | 9,022 | 1 |
| R C LONG SHAKE CO | 18,010 | 9,005 | 1 |
| VALLEY ENTERPRISES | 17,953 | 8,977 | 1 |
| DELONG SPORTSWEAR | 17,899 | 8,950 | 1 |
| WEBFOOT FERTILIZER CO | 17,895 | 8,948 | 1 |
| SANDY BLVD CARDLOCK | 17,895 | 8,948 | 1 |
| PAASCH ORCHARDS INC | 24,421 | 8,915 | 2 |
| COPELAND PAVING INC | 30,918 | 8,812 | 1 |
| Bingman, Elwyn D. | 17,600 | 8,800 | 1 |
| PRICE-LESS GAS | 17,932 | 8,787 | 1 |
| W.J. Voit Rubber Corp. | 17,335 | 8,668 | 1 |
| HARRY & DAVID | 17,275 | 8,638 | 1 |
| Grimes: Charles V. | 17,270 | 8,635 | 1 |
| HOMETTE CORP | 17,105 | 8,553 | 1 |
| Service | 19,406 | 8,539 | 1 |
| FRED MESSERLE SONS INC | 16,961 | 8,481 | 2 |
| Capitol Recycling & Disposal, Inc.. | 16,910 | 8,455 | 1 |
| MCMINNVILLE CHEVRON | 17,361 | 8,333 | 1 |
| H P MINI STORAGE | 16,500 | 8,250 | 1 |
| SUNNY 70 FARMS INC | 16,458 | 8,229 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|--|---------------|-------------------|---------------------|
| 7TH & ALDER CARDLOCK | 16,298 | 8,149 | 1 |
| WAYNE BURGER | 19,803 | 8,119 | 1 |
| Christensen, Don & Laura | 16,195 | 8,098 | 1 |
| TRUMIX LEASING CO | 16,187 | 8,094 | 2 |
| DBA THOMSEN ORCHARDS | 16,132 | 8,066 | 1 |
| MAINSTOP MINI MARKET & TEXACO | 16,783 | 8,056 | 1 |
| DBA POOLEY ORCHARDS | 16,056 | 8,028 | 1 |
| Northwest Foam Products, Inc. | 16,000 | 8,000 | 1 |
| Oregon Glass Co. Inc. | 15,930 | 7,965 | 1 |
| Krista Cody LTD. dba/Astoria Mini Mart | 15,922 | 7,961 | 1 |
| TALLMAN ORCHARDS INC | 15,890 | 7,945 | 1 |
| ACKERMAN GEORGE M | 15,890 | 7,945 | 1 |
| Kirkelie, Maynard | 31,064 | 7,921 | 1 |
| 29TH AVENUE CARDLOCK | 15,814 | 7,907 | 1 |
| DEWW Farms | 15,800 | 7,900 | 1 |
| OCHOCO PELLET PLANT | 15,728 | 7,864 | 1 |
| MIDVALLEY GLASS CO | 15,633 | 7,817 | 1 |
| Knox Seed, Inc. | 24,000 | 7,800 | 1 |
| Van Dyke, Bernard | 15,582 | 7,791 | 1 |
| DELANY'S FUR RANCH INC | 15,497 | 7,749 | 1 |
| MARSH GLENN W | 15,495 | 7,748 | 1 |
| Whitney, Harold L. | 15,408 | 7,704 | 1 |
| CLIFFORD E JENKINS | 18,571 | 7,614 | 1 |
| PLANNED MARKETING SOLUTIONS | 15,000 | 7,500 | 1 |
| Trutt Bros., Inc. | 15,000 | 7,500 | 1 |
| DON MINEAR ORCHARD | 24,729 | 7,419 | 1 |
| CHALLENGE MANUFACTURING INC | 14,798 | 7,399 | 1 |
| Camp Sherman Stores | 14,928 | 7,389 | 1 |
| PACIFIC PRIDE CLACKAMAS CARDLOCK | 27,772 | 7,360 | 1 |
| CHATEAU BENOIT | 14,676 | 7,338 | 1 |
| M GOE & SON INC | 14,569 | 7,285 | 1 |
| JIM DURRER | 14,506 | 7,253 | 1 |
| KENTON PACKING CO | 14,376 | 7,188 | 1 |
| LANDOLT, RAMON G SUSAN M | 14,305 | 7,153 | 1 |
| PETER NAUMES ORCHARD | 14,300 | 7,150 | 1 |
| SUPREME PERLITE CO | 14,283 | 7,142 | 1 |
| BROWNLEE BUSH DAIRY | 14,278 | 7,139 | 1 |
| PORTLAND CANNING CO INC | 14,227 | 7,114 | 1 |
| Briggs, David R | 14,200 | 7,100 | 1 |
| CUMMINS OREGON DIESEL INC | 14,140 | 7,070 | 1 |
| McKee, Robert | 13,966 | 6,983 | 1 |
| VALLEY CHEM OF LAGRANDE | 13,944 | 6,972 | 1 |
| JARED L ROGERS CHEVRON | 14,513 | 6,966 | 1 |
| OLYMPIC PIPE LINE CO | 17,392 | 6,957 | 1 |
| TAMURA KENNETH WADE | 13,891 | 6,946 | 1 |
| PREMIER MANUFACTURING CO | 13,594 | 6,797 | 1 |
| PORTABLE EQUIPMENT SALVAGE CO | 13,568 | 6,784 | 1 |
| LARAWAY ORCHARDS | 13,567 | 6,784 | 2 |
| NIEHUS, ROBERT C | 13,516 | 6,758 | 1 |
| Jensen, Neils/DBA: Neils Jensen Farm | 13,500 | 6,750 | 1 |
| D P ORCHARDS INC | 13,400 | 6,700 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|-------------------------------------|---------------|-------------------|---------------------|
| LOVELAND ENTERPRISES INC | 13,340 | 6,670 | 1 |
| Homebuilders Northwest, Inc. | 13,305 | 6,653 | 1 |
| PARK PLACE WOOD PRODUCTS INC | 13,249 | 6,625 | 1 |
| HYDRAULIC & MACHINE SERVICES INC | 13,200 | 6,600 | 1 |
| LAUREL VALLEY STORE | 15,301 | 6,579 | 1 |
| RAYMOND A WILHITE ORCHARD | 13,000 | 6,500 | 1 |
| WILBURELLIS CO INC | 13,000 | 6,500 | 1 |
| Ackerman, Wally F. | 12,975 | 6,488 | 1 |
| CONSOLIDATED FOODS CORP | 12,908 | 6,454 | 1 |
| GRESHAM TRANSFER INC | 12,907 | 6,454 | 2 |
| JAGER ROGER DE | 12,850 | 6,425 | 1 |
| Robertson, Kenneth L. | 12,836 | 6,418 | 2 |
| MT ANGEL MEAT CO | 12,824 | 6,412 | 1 |
| Chapman, Allen D. | 12,750 | 6,375 | 1 |
| PEERLESS PATTERN WORKS | 12,732 | 6,366 | 1 |
| G & S CHEVRON | 13,194 | 6,333 | 1 |
| CORVALLIS SAND & GRAVEL CO | 12,609 | 6,305 | 1 |
| Astoria Recycling, INC. | 12,567 | 6,284 | 1 |
| BISSINGER CO | 12,540 | 6,270 | 1 |
| BUTZIN ORCHARD | 12,536 | 6,268 | 1 |
| Versteeg, Lester L. & Ruth M. | 12,501 | 6,251 | 1 |
| MARWYN NAEGELI DAIRY | 12,465 | 6,233 | 1 |
| SALEM ROAD DRIVEWAY CO | 12,377 | 6,189 | 1 |
| Temple Distributing, Inc. | 12,822 | 6,155 | 1 |
| University Texaco | 12,301 | 6,151 | 1 |
| Mt. Harris Farms | 12,250 | 6,125 | 1 |
| Rieben, Erenest R | 12,086 | 6,043 | 1 |
| MARIE COCHRAN DAIRY | 11,987 | 5,994 | 1 |
| BAKER VALLEY CHEVRON | 12,477 | 5,927 | 1 |
| LITTLE RIVER BOX CO | 11,825 | 5,913 | 1 |
| NEHALEM VALLEY SANITARY SERVICE | 11,805 | 5,903 | 1 |
| MCISAAC RROBERT M | 11,661 | 5,831 | 1 |
| SUMICH JOHN G NICHOLAS D | 11,629 | 5,815 | 1 |
| DENNIS THOMPSON/TIGARD ARCO | 15,010 | 5,779 | 1 |
| CHRISTENSEN TIMOTHY JASE | 44,050 | 5,727 | 1 |
| Bashaw Land & Seed, Inc. | 11,395 | 5,698 | 1 |
| LARIZA FRANK | 11,369 | 5,685 | 1 |
| BOYD COFFEE CO | 11,368 | 5,684 | 1 |
| HAFCO INC | 11,344 | 5,672 | 1 |
| RYDER TRUCK RENTAL | 11,323 | 5,662 | 3 |
| MOE FRED E | 11,186 | 5,593 | 1 |
| CONCRETESTEEL CORP | 11,161 | 5,581 | 1 |
| APOLLO METAL FINISHING INC | 11,089 | 5,545 | 1 |
| HUMPHREY DAIRY FARM | 11,048 | 5,524 | 1 |
| Alberta Body & Paint | 11,706 | 5,502 | 3 |
| MARKMAN MARVIN L | 10,940 | 5,470 | 1 |
| PAGE PAVING CO | 10,890 | 5,445 | 1 |
| PETERS HARRISON | 10,800 | 5,400 | 1 |
| DOUGLAS L PICKELL | 11,120 | 5,338 | 1 |
| Vanleeuwen: George Vanleeuwen Farms | 10,600 | 5,300 | 1 |
| CHIAPPISI JEROME P & ANDREA L | 10,580 | 5,290 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|----------------------------------|---------------|-------------------|---------------------|
| SPEAR BEVERAGE CO | 10,529 | 5,265 | 1 |
| Keeley: Daniel C. | 16,942 | 5,252 | 1 |
| MAY DEPARTMENT STORES CO | 10,488 | 5,244 | 1 |
| GALE ORCHARDS | 10,469 | 5,235 | 1 |
| OBERG SAMUEL | 10,463 | 5,232 | 1 |
| WALTON INC | 10,367 | 5,184 | 1 |
| COAST RANGE PLYWOOD INC | 10,340 | 5,170 | 1 |
| Temp Control Mechanical Corp. | 11,022 | 5,169 | 5 |
| CAL'S SERVICE CENTER | 10,990 | 5,165 | 1 |
| Kuenzi, Lowell & Elizabethl | 10,325 | 5,163 | 1 |
| CONCOR INC | 10,212 | 5,106 | 1 |
| Pistol River Store | 10,085 | 5,043 | 1 |
| Ellis: Merton Gordon | 9,990 | 4,995 | 1 |
| BREWED HOT COFFEE INC | 9,765 | 4,883 | 1 |
| ALTO AUTOMOTIVE INC | 10,515 | 4,874 | 2 |
| CLOVERCREST MARKET | 10,745 | 4,835 | 1 |
| KOBOS CO | 9,560 | 4,780 | 1 |
| JACKSONS MINI STATION | 9,949 | 4,776 | 1 |
| Warden Farms | 9,500 | 4,750 | 1 |
| Funrue, Sherrill A. | 9,216 | 4,608 | 2 |
| Pacific Sanitation | 9,205 | 4,603 | 1 |
| SAM OBERG | 9,015 | 4,508 | 1 |
| OATES GREGORY H | 9,000 | 4,500 | 1 |
| FARM | 8,995 | 4,498 | 1 |
| KLINDT PAUL H | 8,953 | 4,477 | 1 |
| TOM BLANCHARD DAIRY | 8,819 | 4,410 | 1 |
| Roth, Scott | 8,750 | 4,375 | 1 |
| CARROLL PAUL E | 8,749 | 4,375 | 1 |
| MILL CITY CHEVRON STATION | 8,600 | 4,300 | 1 |
| Bellview Moulding Mill | 8,584 | 4,292 | 1 |
| United Grocers, Inc. | 8,549 | 4,275 | 1 |
| PORTLAND PROVISION CO | 8,527 | 4,264 | 1 |
| NPI, Inc. dba/Northwest Polymers | 8,500 | 4,250 | 1 |
| HEWLETT PACKAR | 8,374 | 4,187 | 1 |
| BELT HARLEY S | 8,371 | 4,186 | 1 |
| OREGON COAST TOWING CO | 8,300 | 4,150 | 1 |
| BENTON III CHARLES K | 13,800 | 4,140 | 1 |
| CUMMINS NW INC | 8,200 | 4,100 | 4 |
| WILLIS BOB G | 7,995 | 3,998 | 1 |
| ONTARIO FLIGHT SERVICE | 8,141 | 3,989 | 1 |
| ROOD JR FRANK B | 7,971 | 3,986 | 1 |
| LARAWAY W C | 7,945 | 3,973 | 1 |
| MARK'S TEXACO | 7,940 | 3,970 | 1 |
| LOUIS HILLECKE & SONS | 7,843 | 3,922 | 1 |
| FRANSEN B H | 7,796 | 3,898 | 1 |
| FORT HILL LUMBER CO | 7,783 | 3,892 | 1 |
| Knaupp Seed Farm, Inc. | 7,749 | 3,875 | 1 |
| KELLY FIELD CHEVRON | 7,719 | 3,860 | 1 |
| TRECO | 7,620 | 3,810 | 1 |
| Eder Brothers, Inc. | 7,620 | 3,810 | 1 |
| U R EXPRESS INC | 7,532 | 3,766 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| Neuschwander, Robert E. | 7,515 | 3,758 | 1 |
| SOLEM, INC. | 7,507 | 3,753 | 1 |
| Valley View Farms Inc. | 7,250 | 3,625 | 1 |
| CLIFF & WANDA BAUER | 7,232 | 3,616 | 1 |
| JOSEPH A HUFF | 8,590 | 3,608 | 1 |
| EGGER RICHARD HERMAN CAROL JEAN | 7,209 | 3,605 | 1 |
| NAUMES SUSAN F | 36,000 | 3,600 | 1 |
| CLACKAMAS PACIFIC PRIDE | 7,146 | 3,573 | 1 |
| J M SMUCKER CO | 7,101 | 3,551 | 1 |
| PITNEY JAMES B BETTY Z | 7,086 | 3,543 | 1 |
| Nixon Farms Inc. | 7,076 | 3,538 | 1 |
| WEST HARVARD FURNITURE CO | 7,000 | 3,500 | 1 |
| HORNING BROTHERS | 6,989 | 3,495 | 1 |
| PUTNAM ELWYN L | 6,960 | 3,480 | 1 |
| YANSY POINT FUEL CO | 6,923 | 3,462 | 1 |
| GEVURTZ FURNITURE CO | 6,839 | 3,420 | 1 |
| Davidson Leasing | 6,775 | 3,388 | 1 |
| EVERT FREDERIKS DAIRY | 6,682 | 3,341 | 1 |
| Knox: Arnold E. Knox Farm | 6,500 | 3,250 | 1 |
| Larvik Disposal, Inc./dba: City Garbage | 6,488 | 3,244 | 1 |
| METROFEULING INC | 6,956 | 3,165 | 1 |
| SILVER DOME FARMS | 6,285 | 3,143 | 1 |
| CORP | 6,270 | 3,135 | 1 |
| MERZ ORCHARDS INC | 31,271 | 3,127 | 1 |
| STEWART BERNARD A | 6,241 | 3,121 | 1 |
| SHADETREE LANDSCAPE | 6,043 | 3,022 | 1 |
| HEIDGERKEN DONALD R & JANET M | 5,982 | 2,991 | 1 |
| C & D LUMBER CO | 7,551 | 2,983 | 1 |
| PACIFIC RIM TRADING | 5,950 | 2,975 | 1 |
| BP GLADSTONE | 5,826 | 2,913 | 1 |
| Chestnut Place Apartments | 5,803 | 2,902 | 1 |
| HAWK TRANSPORTATION LTD | 5,798 | 2,899 | 1 |
| Wares Auto Body, Inc. | 6,481 | 2,891 | 2 |
| SANDRA & GARY POWELL | 5,596 | 2,798 | 1 |
| GISM INC | 5,572 | 2,786 | 1 |
| PETER KRYL | 5,568 | 2,784 | 1 |
| MARC NELSON OIL CO | 5,883 | 2,736 | 1 |
| DELON OLDS CO | 5,413 | 2,707 | 2 |
| BAIRD'S AUTO REPAIR | 5,370 | 2,685 | 1 |
| FOX ROBERT W | 5,332 | 2,666 | 1 |
| ATLAS REFRIGERATION INC | 5,325 | 2,663 | 1 |
| DBA S S FARMS | 5,309 | 2,655 | 1 |
| Taylor, Dennis | 5,233 | 2,617 | 1 |
| Colspen Corp DBA Astoria Recycling | 5,208 | 2,604 | 1 |
| MJC ENTERPRISES | 5,200 | 2,600 | 1 |
| Eisiminger, Dale A. | 6,500 | 2,600 | 1 |
| Miller, Valentine | 10,800 | 2,592 | 1 |
| KINDLER BRUCE R | 5,157 | 2,579 | 1 |
| MCNIEL JESS JR & LORRAINE | 5,150 | 2,575 | 1 |
| KLAMATH TALLOW CO | 5,094 | 2,547 | 1 |
| The Heating Specialist, Inc. | 5,791 | 2,547 | 3 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| R Plastics, Inc | 5,016 | 2,508 | 1 |
| ITA SERVICES | 5,000 | 2,500 | 1 |
| Greg's Auto Service | 4,990 | 2,495 | 2 |
| GEBHARDT EDWIN W & FRANKLIN H | 24,750 | 2,475 | 1 |
| DAIRY DE BONTE HOE | 4,900 | 2,450 | 1 |
| KISTNER & WEBER | 4,856 | 2,428 | 1 |
| CLEVELAND AUTO REPAIR INC | 4,782 | 2,391 | 1 |
| GC CO INC | 4,734 | 2,367 | 1 |
| CASCADE FOREST PRODUCTS INC | 4,650 | 2,325 | 1 |
| SCOTT FARMS | 4,611 | 2,306 | 1 |
| EARNEST EDWARD W | 4,500 | 2,250 | 1 |
| Hwy 99 Tire & Automotive Inc. | 4,497 | 2,249 | 1 |
| FISHER'S ARCO | 4,295 | 2,148 | 1 |
| FORD'S CHEVROLET | 4,252 | 2,126 | 1 |
| JOHNSON CREEK TEXACO SERVICE STATION | 4,250 | 2,125 | 1 |
| LANDL SAWYER PAINTING & SANDBLASTING INC | 4,158 | 2,079 | 1 |
| PRO AUTOMOTIVE | 4,104 | 2,052 | 1 |
| Robert Stafford, Inc. | 4,100 | 2,050 | 1 |
| BIELENBERG DAVID J | 6,800 | 2,040 | 1 |
| Rohner Farms | 7,550 | 2,039 | 1 |
| MOORES BRAE MAILEN | 4,049 | 2,025 | 1 |
| Hofer, Duane R., Jr. | 4,000 | 2,000 | 1 |
| AJ'S TRUCK & AUTO SHOP | 3,995 | 1,998 | 1 |
| CERTIFIED AUTOMOTIVE | 4,680 | 1,989 | 1 |
| NINE T NINE TOWING INC | 3,949 | 1,975 | 1 |
| AUTO DOCTOR | 4,624 | 1,965 | 1 |
| SEASIDE AUTO BODY | 3,904 | 1,952 | 1 |
| Weldon's Enterprises, Inc. | 3,900 | 1,950 | 1 |
| JOHN'S FRAME SHOP | 3,851 | 1,926 | 1 |
| HARVEY & PRICE CO | 3,844 | 1,922 | 2 |
| CHARLES | 3,824 | 1,912 | 1 |
| KOBLES AUTOMOTIVE SERVICE | 3,800 | 1,900 | 1 |
| RUSH AUTOMOTIVE | 3,795 | 1,898 | 1 |
| Scott's, Inc./dba: Hilltop Shell | 3,795 | 1,898 | 1 |
| SHEPPARD MOTORS INC | 3,789 | 1,895 | 1 |
| Fink Sanitary Service, Inc. | 3,780 | 1,890 | 1 |
| PREWITT'S QUALITY BODY & PAINT | 5,150 | 1,877 | 2 |
| ALL AROUND AUTOMOTIVE | 4,450 | 1,869 | 1 |
| BORDEN CHEMICAL CO | 3,733 | 1,867 | 1 |
| DAVID DOERFLER | 3,726 | 1,863 | 1 |
| EASTGATE AUTO BODY INC | 3,669 | 1,835 | 1 |
| Chembond, Corp. | 3,637 | 1,819 | 1 |
| A & M BODY & FENDER SERVICE | 3,599 | 1,800 | 1 |
| SMALL WORLD AUTO CENTER INC | 3,585 | 1,793 | 2 |
| EAST AMAZON AUTO | 4,250 | 1,785 | 1 |
| LARIZA ORCHARDS INC | 17,845 | 1,785 | 1 |
| ING | 3,500 | 1,750 | 1 |
| STEPHENS GERALD S MERRILEE | 17,500 | 1,750 | 1 |
| Bielenberg, David J. | 3,500 | 1,750 | 1 |

**Certificates Issued by Applicant
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1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---------------------------------|---------------|-------------------|---------------------|
| Double J Farms | 4,199 | 1,743 | 1 |
| RIVER RD | 3,450 | 1,725 | 1 |
| HALLS' AUTOMOTIVE | 3,450 | 1,725 | 1 |
| FRONT STREET AUTOMOTIVE | 3,445 | 1,723 | 1 |
| QUALITY VOLVO SERVICE | 4,150 | 1,722 | 1 |
| MCKENZIE TIRE INC | 3,429 | 1,715 | 1 |
| B & F Drycleaners, Inc. | 3,425 | 1,713 | 1 |
| PRO AUTOTECH INC | 3,400 | 1,700 | 1 |
| HAWTHORNE AUTO CLINIC INC | 3,395 | 1,698 | 1 |
| BAUER ENTERPRISES INC | 3,372 | 1,686 | 1 |
| CASCADE CHEVRON | 4,048 | 1,680 | 1 |
| ARTISAN AUTOMOTIVE INC | 3,355 | 1,678 | 1 |
| MEIER & FRANK | 3,348 | 1,674 | 1 |
| POWERHOUSE ENGINES | 3,347 | 1,674 | 1 |
| STAR BODY WORKS | 3,300 | 1,650 | 1 |
| DELON MOTOR CO | 3,295 | 1,648 | 1 |
| METRO TIRE & AUTO REPAIR | 3,295 | 1,648 | 1 |
| BRIAN DAVID STANDFORD | 3,295 | 1,648 | 1 |
| HOLMES E R | 3,292 | 1,646 | 1 |
| HAYDEN SAAB SERVICE | 3,996 | 1,638 | 1 |
| MEL'S BO INC | 3,995 | 1,638 | 1 |
| PANKRATZ AUTO SERVICE | 3,250 | 1,625 | 1 |
| SCHOLLS FERRY CHEVRON | 3,225 | 1,613 | 1 |
| MERJER ORCHARD | 16,000 | 1,600 | 1 |
| EUROTECH | 3,200 | 1,600 | 1 |
| ALLEN'S AUTOMOTIVE & TOWING INC | 3,196 | 1,598 | 1 |
| BUG WORKS INC | 3,157 | 1,579 | 1 |
| Don Rhyne Painting Co. | 3,129 | 1,565 | 1 |
| BLOOMS AUTOMANIA | 5,484 | 1,563 | 1 |
| DAIRYFOLKS HOLSTEIN FARM | 3,113 | 1,557 | 1 |
| Larry Launder, Inc. | 3,790 | 1,554 | 1 |
| PRESTIGE AUTO REPAIR | 3,105 | 1,553 | 1 |
| TNT REDDAWAY TRUCK LINE | 3,095 | 1,548 | 1 |
| ACP | 3,095 | 1,548 | 1 |
| CT AUTO REPAIR | 3,095 | 1,548 | 1 |
| RON BENNETT | 3,095 | 1,548 | 1 |
| PRECISION MOTOR CAR LTD | 3,095 | 1,548 | 1 |
| BUD'S REPAIR SERVICE | 3,095 | 1,548 | 1 |
| Towler Refrigeration | 3,044 | 1,522 | 1 |
| GRESHAM CHEVRON | 3,000 | 1,500 | 1 |
| OLD TOWN CHEVRON | 3,000 | 1,500 | 1 |
| BI-MART CORP INC | 3,000 | 1,500 | 1 |
| MARION AG SERVICE INC | 3,000 | 1,500 | 1 |
| SANDY AUTO BODY INC | 3,000 | 1,500 | 1 |
| SCOTT'S INC | 3,000 | 1,500 | 1 |
| DUFRESNE'S AUTO SERVICE INC | 3,000 | 1,500 | 1 |
| STEVE'S AUTOMOTIVE | 3,000 | 1,500 | 1 |
| TALLMAN ORCHARDS | 15,000 | 1,500 | 1 |
| LADDS AUTOMOTIVE REPAIR | 3,000 | 1,500 | 1 |
| ROBERSON SHELL | 3,000 | 1,500 | 1 |
| ACTION AUTO & RADIATOR | 3,000 | 1,500 | 1 |

**Certificates Issued by Applicant
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1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|-----------------------------------|---------------|-------------------|---------------------|
| INC | 3,000 | 1,500 | 1 |
| BROOKINGS UNION 76 | 2,995 | 1,498 | 1 |
| MIKE O'HARA | 2,995 | 1,498 | 1 |
| CLEMENS CHEVRON | 2,995 | 1,498 | 1 |
| CITY AUTOMOTIVE | 2,995 | 1,498 | 1 |
| APPLE CITY AUTO BODY SHOP | 2,995 | 1,498 | 1 |
| K-FALLS AUTO SERVICE | 2,995 | 1,498 | 1 |
| AUTOMOTIVE INC | 2,995 | 1,498 | 1 |
| COURTSEY AUTOMOTIVE INC | 2,994 | 1,497 | 1 |
| RIVERSIDE JEEP EAGLE | 3,696 | 1,497 | 1 |
| JANTZEN BEACH CHEVRON | 2,981 | 1,491 | 1 |
| LEE WIENKE | 2,972 | 1,486 | 1 |
| KLAMATH AUTO WRECKERS INC | 2,945 | 1,473 | 1 |
| BEWLEY MECHANICAL SYSTEMS INC | 3,601 | 1,458 | 1 |
| CENTRAL AUTO SERVICE INC | 3,600 | 1,458 | 1 |
| FABRICATING | 2,900 | 1,450 | 1 |
| VERGER CHRY-PLYM-DODGE INC | 3,607 | 1,443 | 1 |
| MICHAEL H & SHERRIE L BUCKRIDGE | 2,869 | 1,435 | 1 |
| PETER'S AUTO WORKS INC | 2,861 | 1,431 | 1 |
| LUKAS AUTO PAINTING & REPAIR | 2,861 | 1,431 | 1 |
| Ashenber, R.S. | 2,850 | 1,425 | 1 |
| BUCK MEDICAL SERVICES | 2,850 | 1,425 | 1 |
| APPLEGATE AUTOMOTIVE | 2,850 | 1,425 | 1 |
| CHAMBERS PLUMBING & HEATING INC | 2,849 | 1,425 | 1 |
| JOHN'S AUTOMOTIVE SERVICE | 3,525 | 1,410 | 1 |
| COMFORT CONTROL INC | 3,521 | 1,408 | 1 |
| KENNETH W DARROW | 2,805 | 1,403 | 1 |
| LUCAS MACK SALES & SERVICE INC | 2,804 | 1,402 | 1 |
| AL'S HEATING, A/C & SPAS | 3,505 | 1,402 | 1 |
| AL'S AUTOMOTIVE SERVICE CENTER | 2,804 | 1,402 | 1 |
| INC | 2,800 | 1,400 | 1 |
| TOOL BOX | 2,795 | 1,398 | 1 |
| D & W AUTOMOTIVE | 2,795 | 1,398 | 1 |
| CAROL BEVINS AUTOMOTIVE | 2,785 | 1,393 | 1 |
| PIERCE JR ROY | 13,880 | 1,388 | 1 |
| ENGINES | 3,468 | 1,387 | 1 |
| NU WAY BODY & FENDER WORKS | 2,755 | 1,378 | 1 |
| FLY BY NIGHT REFRIGERATION | 2,750 | 1,375 | 1 |
| HONKE HEATING & AC | 2,750 | 1,375 | 1 |
| ORIENT AUTO SERVICE INC | 2,750 | 1,375 | 1 |
| AALTONEN & JAMES, Inc. | 2,745 | 1,373 | 1 |
| PROFESSIONAL DRIVERS & DISPATCH | 4,195 | 1,363 | 1 |
| BROAD-MILL CO | 2,706 | 1,353 | 1 |
| MOUNTAIN TECH | 2,700 | 1,350 | 1 |
| SARGENT AUTOMOTIVE | 2,699 | 1,350 | 1 |
| The Gold Wrench | 2,695 | 1,348 | 1 |
| DAILEY'S TIRE & WHEEL | 2,695 | 1,348 | 1 |
| CORNELIUS AUTO REPAIR SERVICE INC | 3,400 | 1,343 | 1 |
| B & E IMPORTS DBA GRESHAM HONDA | 3,400 | 1,343 | 1 |
| SHELDON'S TEXACO & MUFFLER SHOP | 3,400 | 1,343 | 1 |
| The Master Wrench, Inc. | 3,400 | 1,343 | 1 |

**Certificates Issued by Applicant
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| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| University Honda | 3,400 | 1,343 | 1 |
| MIKE STRASSEL MOBILE REPAIR | 2,680 | 1,340 | 1 |
| GARY SMERDON AUTOMOTIVE | 2,656 | 1,328 | 1 |
| S & R AUTO REPAIR | 2,650 | 1,325 | 1 |
| AMERICAN HEATING INC | 3,350 | 1,323 | 1 |
| ERICKSON AUTOMOTIVE | 3,338 | 1,319 | 1 |
| OJA ROBERT E | 2,631 | 1,316 | 1 |
| E & E BODY SHOP | 3,300 | 1,304 | 1 |
| CROWN AUTOCRAFT | 3,300 | 1,304 | 1 |
| C & E CURTIS ENTERPRISES INC | 2,600 | 1,300 | 1 |
| ELLIOTT'S AUTO SERVICE INC | 2,599 | 1,300 | 1 |
| Top Flight Automotive | 2,595 | 1,298 | 1 |
| SCHWEIZER DAIRY | 2,557 | 1,279 | 1 |
| CENTER INC | 2,543 | 1,272 | 1 |
| RAY'S AUTO REPAIR | 2,500 | 1,250 | 1 |
| DECKER'S RADIATOR | 2,500 | 1,250 | 1 |
| Doug Cousins Auto Repair | 2,500 | 1,250 | 1 |
| J & R AUTOMOTIVE SERVICES INC | 3,200 | 1,248 | 1 |
| RAY'S SPEEDO & ELECTRIC | 2,495 | 1,248 | 1 |
| FULLER'S AUTOMOTIVE | 2,495 | 1,248 | 1 |
| The Autosmith | 2,495 | 1,248 | 1 |
| AUTO | 3,185 | 1,242 | 1 |
| MJ GOSS MOTOR CO | 3,185 | 1,242 | 1 |
| Shellman, Terry | 3,185 | 1,242 | 1 |
| RON TONKIN CHEVROLET CO | 3,185 | 1,242 | 1 |
| MECHTRONICS | 3,185 | 1,242 | 1 |
| CEDAR MILL TEXACO | 3,185 | 1,242 | 1 |
| DBA AUTO TECH | 2,599 | 1,235 | 1 |
| 1 CENT PROFIT SALES | 3,160 | 1,232 | 1 |
| Kuschnick Brothers Farms | 2,417 | 1,209 | 1 |
| Miller, Martin A. | 2,416 | 1,208 | 1 |
| NORM'S AUTO REPAIR | 2,400 | 1,200 | 1 |
| METRO METRIC AUTOMOTIVE SERVICE | 2,399 | 1,200 | 1 |
| FOSTER AUTO PARTS INC | 2,398 | 1,199 | 1 |
| LARRY HENDERSON'S CHEVRON | 2,395 | 1,198 | 1 |
| Elliott's Auto Service, Inc. | 2,390 | 1,195 | 2 |
| R & R AUTOMOTIVE INC | 3,100 | 1,194 | 1 |
| SERV INC | 3,000 | 1,155 | 1 |
| DON RASMUSSEN CO | 2,995 | 1,153 | 1 |
| OAK PARK AUTOMOTIVE INC | 2,306 | 1,153 | 1 |
| LANGDON IMPLEMENT CO/LANGDON & SONS INC | 2,306 | 1,153 | 1 |
| Z'S CAR CARE INC | 2,300 | 1,150 | 1 |
| BRAKES PLUS | 2,295 | 1,148 | 1 |
| JESSE'S AUTO SERVICE | 2,295 | 1,148 | 1 |
| CARTER'S SERVICE STATOONS INC | 2,294 | 1,147 | 1 |
| OAK VALLEY AUTO SALES & LEASING | 2,289 | 1,145 | 1 |
| WILLIAMS' BAKERY | 2,285 | 1,143 | 1 |
| NORTH EUGENE AUTOMOTIVE | 2,268 | 1,134 | 1 |
| PAL BRO INC | 2,257 | 1,129 | 1 |
| TUTTLE'S QUALITY AUTO | 2,250 | 1,125 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---|---------------|-------------------|---------------------|
| BEALE AUTOMOTIVE REPAIR | 2,250 | 1,125 | 1 |
| CONE'S AUTOMOTIVE | 2,242 | 1,121 | 1 |
| Midtown Gas | 2,242 | 1,121 | 1 |
| SISKIYOU IMPORT SERVICES INC | 2,227 | 1,114 | 1 |
| Welch, Virgil/dba:Virgil Welch Chevron | 2,205 | 1,103 | 1 |
| TED'S COLLISION REPAIR INC | 2,200 | 1,100 | 1 |
| AUTO BODY CLINIC | 2,200 | 1,100 | 1 |
| DON DOERR | 2,200 | 1,100 | 1 |
| SHARP AUTOBODY & PAINT WORKS INC | 2,200 | 1,100 | 1 |
| BABBITT ENTERPRISES INC | 2,200 | 1,100 | 1 |
| OLD FASHION BODY WORKS | 2,200 | 1,100 | 1 |
| JEFFERSON AUTOMOTIVE INC | 2,200 | 1,100 | 1 |
| B & Z AUTO BODY | 2,200 | 1,100 | 1 |
| PERFORMANCE AUTO | 2,200 | 1,100 | 1 |
| CHUCK'S BODY & FENDER | 2,200 | 1,100 | 1 |
| MCMINNVILLE AUTO BODY INC | 2,195 | 1,098 | 1 |
| INNOVATION AUTO | 2,190 | 1,095 | 1 |
| OLDS INC | 2,180 | 1,090 | 1 |
| JIM DORAN CHEVROLET-OLDS INC | 2,180 | 1,090 | 1 |
| ROE MOTORS INC | 2,180 | 1,090 | 1 |
| Aire-Flo Heating & Air Conditioning, Inc. | 2,178 | 1,089 | 2 |
| JON TOGSTAD | 2,150 | 1,075 | 1 |
| GIL'S TRUCK REPAIR INC | 2,145 | 1,073 | 1 |
| Seiler & Smith, Inc. | 2,100 | 1,050 | 1 |
| EARL'S AUTOMOTIVE | 2,100 | 1,050 | 1 |
| TROUTDALE INC | 2,063 | 1,032 | 1 |
| GFK ASSOCIATES INC | 2,241 | 1,031 | 1 |
| C & W AUTO BODY INC | 2,050 | 1,025 | 1 |
| VERGER CHRY PLYM DODGE INC | 2,022 | 1,011 | 1 |
| PROUDFOOT RANCHES INC | 2,013 | 1,007 | 1 |
| SHROPE'S CHEVRON INC | 2,003 | 1,002 | 1 |
| CW STUCK | 2,003 | 1,002 | 1 |
| Alpine Disposal & Recycling | 2,000 | 1,000 | 1 |
| CLYDE'S AUTOMOTIVE | 2,000 | 1,000 | 1 |
| BRAD'S BODY & FENDER SERVICE INC | 2,000 | 1,000 | 1 |
| M & W AUTOMOTIVE | 1,999 | 1,000 | 1 |
| Z West, Inc. | 1,995 | 998 | 1 |
| KRONKE'S PORTLAND STAR | 1,995 | 998 | 1 |
| Sam Trakul Investments, Inc. | 1,994 | 997 | 1 |
| RICHARDS FOOD CENTERS INC | 1,990 | 995 | 1 |
| REX W HUNT | 1,985 | 993 | 1 |
| BILL OLINGER LINCOLN MERCURY INC | 1,980 | 990 | 1 |
| LANDMARK FORD INC | 1,980 | 990 | 1 |
| KENT ERIC JACOBSON | 1,975 | 988 | 1 |
| J M BERNARDS GARAGE | 1,950 | 975 | 1 |
| SMALL WOWRLD AUTO CENTER INC | 1,944 | 972 | 1 |
| INC | 2,025 | 972 | 1 |
| PORTLAND SERVICE STATION SUPPLY | 1,926 | 963 | 1 |
| MARSHALL'S AUTOMOTIVE | 1,900 | 950 | 1 |
| DARRIS TIRE & AUTOMOTIVE SERVICE | 1,900 | 950 | 1 |
| TROUTMAN ENTERPRISES INC | 1,897 | 949 | 1 |

**Certificates Issued by Applicant
Ranked by Certified Cost
1968 through 1998**

| Applicant | Facility Cost | Certificate Value | No. of Certificates |
|---------------------------------|---------------|-------------------|---------------------|
| Templeton Enterprises, Inc | 1,895 | 948 | 1 |
| U PULL IT TIGARD INC | 1,863 | 932 | 1 |
| Woodstock Texaco, Inc. | 1,862 | 931 | 1 |
| METROFUELING, INC | 1,852 | 926 | 1 |
| MIKES EXXON PRODUCTS INC | 1,850 | 925 | 1 |
| COASTAL REFRIGERATION | 1,846 | 923 | 1 |
| CENTER | 1,803 | 902 | 1 |
| RON TONKIN GRAN TURISMO | 1,790 | 895 | 1 |
| DON RASUMSSON CO | 1,786 | 893 | 1 |
| INC | 1,785 | 893 | 1 |
| HILLTOP CHEVRON INC | 1,785 | 893 | 1 |
| HILLSBORO AUTO WRECKING | 1,750 | 875 | 1 |
| SCOTTIES AUTO BODY REPAIR | 1,750 | 875 | 1 |
| ENERGY SYSTEMS NW | 1,655 | 828 | 1 |
| GARAG | 1,655 | 828 | 1 |
| BEAVERTON AUTO REBUILDERS INC | 1,637 | 819 | 1 |
| WESTERMAN HEAT & COOL | 1,623 | 812 | 1 |
| JBR ENTERPRISES INC | 1,595 | 798 | 1 |
| CASCADE TRACTOR CO | 1,501 | 751 | 1 |
| AMERICAN AUTO RECYCLING INC | 1,500 | 750 | 1 |
| SIBERTS AUTO BODY | 1,450 | 725 | 1 |
| U-PULL-IT LTD | 1,430 | 715 | 1 |
| MERRITT #2 | 1,389 | 695 | 1 |
| MERRITT #1 | 1,389 | 695 | 1 |
| ARROW TRANSPORTATION CO | 1,354 | 677 | 1 |
| LOREE VERN | 1,344 | 672 | 1 |
| INC | 2,000 | 650 | 1 |
| OBIE'S IMPORT REPAIR INC | 1,995 | 648 | 1 |
| Sibert Auto Body | 1,995 | 648 | 1 |
| Beaverton Auto Rebuilders, Inc. | 1,295 | 648 | 1 |
| EDCO SHEET METAL INC | 1,275 | 638 | 1 |
| ABC Recycling of S. Oregon | 2,685 | 631 | 1 |
| GOE DONALD L | 4,000 | 400 | 1 |
| IRINGA BROTHERS INC | 672 | 336 | 1 |
| BOUNDS REX | 634 | 317 | 1 |
| HILLSBORO LANDFILL INC | 0 | 0 | 1 |
| MICHAEL LANDOLT DAIRY | | | 1 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|---------------|------------|
| | Value | No. Issued |
| ADAMS | \$ 3,654 | 1 |
| ALBANY | \$ 22,430,945 | 253 |
| ALOHA | \$ 4,365,092 | 19 |
| AMITY | \$ 130,147 | 9 |
| ARLINGTON | \$ 13,946,207 | 14 |
| ASHLAND | \$ 224,639 | 14 |
| ASTORIA | \$ 415,138 | 16 |
| ATHENA | \$ 13,524 | 1 |
| AUMSVILLE | \$ 242,727 | 5 |
| AURORA | \$ 1,003,606 | 10 |
| BAKER CITY | \$ 2,637,827 | 12 |
| BANDON | \$ 43,543 | 2 |
| Banks | \$ 72,014 | 4 |
| BEAVER | \$ 10,213 | 1 |
| Beavercreek | \$ 37,353 | 1 |
| BEAVERTON | \$ 6,204,487 | 89 |
| BEND | \$ 4,097,031 | 62 |
| Biggs Junction | \$ 39,372 | 1 |
| BLACHLY | \$ 5,815 | 1 |
| BLY | \$ 53,748 | 1 |
| BOARDMAN | \$ 53,506,990 | 35 |
| BONANZA | \$ 993 | 1 |
| BORING | \$ 46,482 | 3 |
| BROOKINGS | \$ 371,524 | 6 |
| BROOKS | \$ 20,049,532 | 9 |
| BROWNSVILLE | \$ 786,012 | 17 |
| BURNS | \$ 25,149 | 2 |
| BUTON | \$ 18,425 | 1 |
| CAMP SHERMAN | \$ 7,389 | 1 |
| CANBY | \$ 2,641,998 | 13 |
| CANNON BEACH | \$ 25,989 | 1 |
| CANYON CITY | \$ 50,497 | 3 |
| CANYONVILLE | \$ 23,484 | 2 |
| CARLTON | \$ 44,374 | 3 |
| CARVER | \$ 83,798 | 1 |
| CASCADE LOCKS | \$ 10,076 | 1 |
| CAVE JUNCTION | \$ 330,675 | 2 |
| CENTRAL POINT | \$ 882,990 | 29 |
| CHARLESTON | \$ 28,658 | 1 |
| CHEMULT | \$ 51,715 | 2 |
| CHILOQUIN | \$ 37,887 | 2 |
| CLACKAMAS | \$ 1,420,576 | 22 |
| CLATSKANIE | \$ 11,192,662 | 28 |
| COBURG | \$ 2,827,386 | 6 |
| COLTON | \$ 4,992 | 1 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|---------------|------------|
| | Value | No. Issued |
| COOS BAY | \$ 633,187 | 29 |
| COQUILLE | \$ 659,537 | 12 |
| CORNELIUS | \$ 127,416 | 5 |
| Corvallis | \$ 1,766,061 | 68 |
| COTTAGE GROVE | \$ 1,171,483 | 30 |
| CRESWELL | \$ 425,666 | 5 |
| CULP CREEK | \$ 471,582 | 5 |
| CULVER | \$ 1,522 | 1 |
| CURTIN | \$ 4,156 | 1 |
| DAIRY | \$ 5,178 | 1 |
| DALLAS | \$ 1,943,507 | 27 |
| DAYTON | \$ 339,741 | 5 |
| DILLARD | \$ 5,236,393 | 18 |
| DIXONVILLE | \$ 1,017,928 | 2 |
| DONALD | \$ 131,803 | 1 |
| DRAIN | \$ 539,709 | 9 |
| DUNDEE | \$ 28,233 | 1 |
| DURKEE | \$ 5,109,988 | 5 |
| EAGLE CREEK | \$ 136,563 | 3 |
| ELGIN | \$ 994,175 | 12 |
| EMPIRE | \$ 4,150 | 1 |
| Enterprise | \$ 69,068 | 1 |
| ESTACADA | \$ 397,622 | 15 |
| Eugene | \$ 14,048,650 | 118 |
| FAIRVIEW | \$ 66,017 | 2 |
| FALLS CITY | \$ 3,608 | 1 |
| FLORENCE | \$ 49,947 | 4 |
| FOREST GROVE | \$ 2,140,560 | 22 |
| FOSTER | \$ 70,522 | 1 |
| GALES CREEK | \$ 14,015 | 1 |
| GARDINER | \$ 13,864,445 | 46 |
| GARIBALDI | \$ 5,787 | 2 |
| GASTON | \$ 52,310 | 2 |
| GEARHART | \$ 24,734 | 1 |
| GERVAIS | \$ 136,330 | 7 |
| GLADSTONE | \$ 42,211 | 7 |
| GLENDALE | \$ 116,261 | 3 |
| GLIDE | \$ 29,253 | 2 |
| GOLD BEACH | \$ 644,050 | 7 |
| Gold Hill | \$ 24,930 | 1 |
| GOSHEN | \$ 62,773 | 2 |
| GOVERNMENT CAMP | \$ 51,539 | 1 |
| GRAND RONDE | \$ 67,911 | 4 |
| GRANTS PASS | \$ 1,365,795 | 40 |
| Grass Valley | \$ 31,061 | 1 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|---------------|------------|
| | Value | No. Issued |
| GRESHAM | \$ 3,790,542 | 35 |
| HALSEY | \$ 14,384,768 | 34 |
| HARBOR | \$ 30,811 | 1 |
| HARLAN | \$ 11,890 | 1 |
| HARRISBURG | \$ 1,223,539 | 44 |
| HELIX | \$ 30,461 | 1 |
| HEPPNER | \$ 436,445 | 2 |
| Hermiston | \$ 3,053,557 | 17 |
| HILLSBORO | \$ 4,681,842 | 34 |
| HINES | \$ 729,503 | 3 |
| HOOD RIVER | \$ 1,649,693 | 66 |
| HUBBARD | \$ 91,235 | 4 |
| HUNTINGTON | \$ 361,587 | 2 |
| IDANHA | \$ 684,896 | 7 |
| IDLEYLD PARK | \$ 58,403 | 2 |
| IMBLER | \$ 8,725 | 2 |
| INDEPENDENCE | \$ 240,817 | 11 |
| IONE | \$ 1,007 | 1 |
| ISLAND CITY | \$ 419,304 | 6 |
| JEFFERSON | \$ 100,044 | 7 |
| JOHN DAY | \$ 92,308 | 3 |
| Johnson City | \$ 35,903 | 1 |
| Jordan Valley | \$ 9,241 | 1 |
| JOSEPH | \$ 62,584 | 3 |
| JUNCTION CITY | \$ 1,217,762 | 25 |
| KEIZER | \$ 85,694 | 4 |
| KENO | \$ 21,542 | 1 |
| KING CITY | \$ 948 | 1 |
| KLAMATH FALLS | \$ 4,045,596 | 59 |
| KNAPPA | \$ 36,711 | 1 |
| LA GRANDE | \$ 978,670 | 18 |
| LAKE GROVE | \$ 33,419 | 1 |
| LAKE OSWEGO | \$ 601,451 | 30 |
| LAKESIDE | \$ 395,114 | 3 |
| LAKEVIEW | \$ 291,439 | 5 |
| LANGLOIS | \$ 10,568 | 1 |
| LEBANON | \$ 4,864,123 | 36 |
| LIBERAL | \$ 61,854 | 2 |
| LINCOLN CITY | \$ 113,945 | 5 |
| LONG CREEK | \$ 1,226,911 | 1 |
| LYONS | \$ 289,300 | 4 |
| MADRAS | \$ 231,056 | 14 |
| MALHEUR | \$ 78,128 | 1 |
| MANZANITA | \$ 36,884 | 1 |
| MAPLETON | \$ 182,913 | 4 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|---------------|------------|
| | Value | No. Issued |
| MARION | \$ 3,486 | 1 |
| MAUPIN | \$ 9,487 | 2 |
| MCMINNVILLE | \$ 1,594,053 | 29 |
| MEDFORD | \$ 12,710,128 | 111 |
| Mehama | \$ 31,744 | 1 |
| MERLIN | \$ 51,389 | 1 |
| MILL CITY | \$ 57,589 | 6 |
| MILLERSBURG | \$ 1,955,528 | 20 |
| MILTON-FREEWATER | \$ 16,549 | 2 |
| MILWAUKIE | \$ 2,143,421 | 36 |
| MINAM | \$ 7,040 | 1 |
| MOLALLA | \$ 1,118,764 | 10 |
| Monmouth | \$ 172,821 | 7 |
| MONROE | \$ 288,293 | 3 |
| Mosier | \$ 31,289 | 1 |
| MT ANGEL | \$ 153,639 | 9 |
| MT VERNON | \$ 14,300 | 1 |
| MULINO | \$ 100,931 | 2 |
| MYRTLE CREEK | \$ 72,021 | 3 |
| MYRTLE POINT | \$ 8,027 | 1 |
| NEHALEM | \$ 20,018 | 1 |
| NEWBERG | \$ 29,406,421 | 24 |
| NEWPORT | \$ 308,631 | 10 |
| NONE | \$ 5,327 | 1 |
| NORTH BEND | \$ 6,988,218 | 51 |
| NORTH PLAINS | \$ 152,062 | 3 |
| NYSSA | \$ 1,362,647 | 11 |
| OAKLAND | \$ 5,902 | 1 |
| OAKRIDGE | \$ 34,739 | 2 |
| ODELL | \$ 8,053 | 2 |
| OGDEN | \$ 356,805 | 1 |
| ONTARIO | \$ 6,458,508 | 11 |
| OREGON CITY | \$ 7,547,583 | 44 |
| Pacific City | \$ 24,074 | 1 |
| PAISLEY | \$ 20,063 | 1 |
| PARKDALE | \$ 59,817 | 7 |
| PENDLETON | \$ 639,010 | 15 |
| PHILOMATH | \$ 523,942 | 12 |
| PHOENIX | \$ 48,783 | 6 |
| PILOT ROCK | \$ 1,220 | 1 |
| PISTOL RIVER | \$ 5,043 | 1 |
| PLAINVIEW | \$ 59,075 | 2 |
| PLEASANT HILL | \$ 6,150 | 2 |
| Portland | \$ 36,616,031 | 583 |
| PRAIRIE CITY | \$ 26,084 | 2 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|---------------|------------|
| | Value | No. Issued |
| PRINEVILLE | \$ 921,508 | 18 |
| PROSPECT | \$ 8,941 | 2 |
| RAINIER | \$ 21,710,602 | 9 |
| REDMOND | \$ 2,205,868 | 13 |
| REEDSPORT | \$ 38,561 | 2 |
| RICKREALL | \$ 89,199 | 3 |
| RIDDLE | \$ 2,892,869 | 17 |
| ROGUE RIVER | \$ 533,627 | 3 |
| ROSEBURG | \$ 2,063,263 | 31 |
| RURAL ROUTE | \$ 382,125 | 7 |
| SAGINAW | \$ 1,103,335 | 3 |
| SALEM | \$ 8,753,024 | 145 |
| SANDY | \$ 158,954 | 9 |
| SCAPPOOSE | \$ 245,400 | 5 |
| SCIO | \$ 40,080 | 4 |
| SCOTTS MILLS | \$ 7,749 | 1 |
| SEASIDE | \$ 35,773 | 4 |
| SHEDD | \$ 1,021,642 | 31 |
| SHELBURN | \$ 27,655 | 2 |
| SHERIDAN | \$ 586,580 | 7 |
| SHERWOOD | \$ 146,851 | 9 |
| SILVERTON | \$ 740,508 | 29 |
| SISTERS | \$ 78,252 | 2 |
| SPRINGFIELD | \$ 28,673,735 | 126 |
| ST. HELENS | \$ 42,169,189 | 36 |
| ST. PAUL | \$ 1,114,001 | 35 |
| STANFIELD | \$ 104,898 | 2 |
| STAYTON | \$ 718,231 | 12 |
| SUBLIMITY | \$ 13,142 | 3 |
| SUMNER | \$ 12,576 | 2 |
| SUTHERLIN | \$ 611,634 | 5 |
| SWEET HOME | \$ 879,788 | 15 |
| TALENT | \$ 83,370 | 4 |
| Tangent | \$ 970,479 | 32 |
| TERREBONNE | \$ 16,371 | 1 |
| THE DALLES | \$ 7,890,329 | 20 |
| THREE LYNX | \$ 104,145 | 2 |
| TIGARD | \$ 782,407 | 33 |
| TILLAMOOK | \$ 5,091,503 | 47 |
| TOLEDO | \$ 50,995,610 | 41 |
| Trail | \$ 19,713 | 1 |
| TRENT | \$ 50,050 | 1 |
| TRI CITY | \$ 36,819 | 1 |
| TROUTDALE | \$ 17,136,307 | 25 |
| TUALATIN | \$ 833,329 | 29 |

**Certificate Value
Issued by Location of the Facility
1968 through 1998**

| Location of Facility | Certificate | |
|----------------------|--------------|------------|
| | Value | No. Issued |
| TUMALO | \$ 10,171 | 1 |
| TURNER | \$ 119,942 | 3 |
| UKIAH | \$ 974 | 1 |
| UMATILLA | \$ 6,333 | 1 |
| UNION | \$ 46,207 | 2 |
| VALE | \$ 554,815 | 2 |
| VALSETZ | \$ 71,726 | 2 |
| VAUGHN | \$ 75,221 | 3 |
| VENETA | \$ 133,649 | 2 |
| VERNONIA | \$ 45,212 | 2 |
| WALDPORT | \$ 695 | 1 |
| WALKER | \$ 45,099 | 1 |
| WALPORT | \$ 21,892 | 1 |
| WARRENTON | \$ 452,144 | 5 |
| WAUNA | \$ 4,166,724 | 2 |
| WEST LINN | \$ 4,194,181 | 29 |
| Westport | \$ 33,243 | 1 |
| WHITE CITY | \$ 6,096,271 | 36 |
| WILLAMINA | \$ 1,167,259 | 13 |
| WILSONVILLE | \$ 423,064 | 12 |
| WINCHESTER | \$ 28,024 | 2 |
| Winston | \$ 75,610 | 1 |
| Woodburn | \$ 1,719,028 | 92 |
| YACHATS | \$ 78,686 | 3 |
| YAMHILL | \$ 67,461 | 3 |
| YONCALLA | \$ 61,279 | 1 |


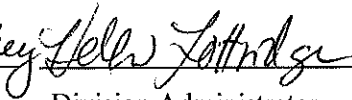
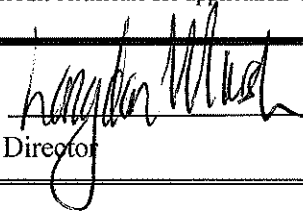
1. The certificate value is determined by: facility cost X the percentage of the facility cost allocable to pollution control X 50%.

Environmental Quality Commission

- Rule Adoption Item
 Action Item
 Information Item

Agenda Item **B**

November 1, 1999 Meeting

| Title: Approval, Denial and Rejection of Tax Credit Applications | | |
|---|---|--|
| Summary: Staff recommends the following actions regarding tax credits: | | |
| | <i>Certified Cost</i> | <i>Value</i> |
| Approve | | |
| <i>Pollution Control Facility Tax Credit</i> | | |
| Air (18 applications) | \$10,799,392 | \$5,399,696 |
| Field Burning (3 applications) | \$249,982 | \$124,991 |
| Hazardous Waste (1 application) | \$192,077 | \$96,039 |
| Solid Waste (5 applications) | \$1,285,536 | \$642,768 |
| USTs (7 applications) | \$948,511 | \$438,694 |
| Water (8 applications) | \$5,973,889 | \$2,986,944 |
| <i>Pollution Control Facility Tax Credit (42 applications)</i> | \$19,449,387 | \$9,689,132 |
| <i>Pollution Prevention Tax Credit</i> | | |
| Perc (1 application) | \$33,382 | \$16,691 |
| <i>Pollution Prevention Tax Credit (1 application)</i> | \$33,382 | \$16,691 |
| <i>Reclaimed Plastics Products Tax Credit</i> | | |
| <i>Reclaimed Plastics Products Tax Credit (2 applications)</i> | \$113,400 | \$56,700 |
| Approve (45 applications) | \$19,596,169 | \$9,762,523 |
| Deny | | |
| <i>Pollution Control Facility Tax Credit</i> | | |
| Air (2 applications) | \$56,308 | |
| Hazardous Waste (1 application) | \$407,722 | |
| Solid Waste (1 application) | \$32,062 | |
| Water (1 application) | \$158,667 | |
| Deny (5 applications) | \$654,759 | |
| Reject | | |
| <i>Pollution Control Facility Tax Credit</i> | | |
| Solid Waste (1 application) | \$2,596,818 | |
| No Preliminary Applications | | |
| Approve issuance of tax credit certificates for the applications presented in Attachment B. Deny issuance of tax credit certificates for the applications presented in Attachment C. Reject issuance of a tax credit certificate for application 4570 as presented in Attachment D. | | |
|  Report Author |  Division Administrator |  Director |

November 1, 1999

†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317/(503)229-6993 (TTD).

Date: November 1, 1999

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item B, November 18, 1999, EQC Meeting
Tax Credit Applications

Statement of the Need for Action

This staff report presents the staff analysis of pollution control facility, pollution prevention, and reclaimed plastics products tax credit applications and the Department's recommendation for Commission action on these applications.

- All applications are summarized in Attachment A of this staff report.
- Applications recommended for Approval are presented in detail in Attachment B.
- Applications recommended for Denial are presented in Attachment C.
- An application recommended for Commission Rejection, accompanied by a Department Rejection, is presented in Attachment D.
- A Topic Discussion: Construction Completed and Placed In Service is presented in Attachment E.
- Set a time for the December year-end telephone conference.

Background APPROVALS: Attachment B

The applications presented in Attachment B meet the eligibility requirements for approval. The applications are organized in application number sequence. There are no Preliminary Approvals for the Pollution Control Tax Credit Program included in Attachment B. Three tax credit programs are represented in Attachment B and are identified as Pollution Control Facility, Reclaimed Plastic Products and Pollution Prevention.

Background DENIALS: Attachment C

The application presented in Attachment C did not meet the eligibility requirements of the Pollution Control Facility Tax Credit program. There are no preliminary applications presented for denial. According to the Commission's direction, this letter only calls out denials that may require background information not contained in the Review Reports or that may require a policy decision.

Willamette Industries, Inc. – Application Number 4980

This application was presented in the November 21, 1997 and the December 11, 1998, EQC Staff Reports. However, they were removed from the agenda since the applicant wished to address the Commission and to present additional information. Staff did not receive additional information.

The applicant claimed their Bobcat front-end loader reduces fugitive wood particulate from all areas of the plant site. They claimed the principal purpose of the Bobcat is to comply with DEQ's ACDP

requirements that specify wood waste must be picked up within 24 hours in order to reduce particulate. For a facility to be certified as a pollution control facility for tax credit purposes it must dispose of or eliminate a substantial quantity of air pollution. In addition, the definition of principal purpose "...means the most important or primary purpose. Each facility may have only one principal purpose."

Staff recommends denial of application number 4980 because:

- The Bobcat does not dispose of or eliminate air pollution as defined in ORS 468A.005

"Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

- The Bobcat's primary and most important purpose is not pollution control. It has other purposes such as maintenance of the plant site and for transporting production materials.

Background REJECTIONS – Attachment D

The Commission is not required to take action on *Department Rejections*. The Department rejects applications received prior to May 1, 1998, on the following authority:

If the Department determines the application is incomplete for processing and the applicant fails to submit requested information within 180 days of the date when the Department requested the information, the application will be rejected by the Department unless applicant requests in writing additional time to submit requested information; OAR 340-16-020(h). Hist.: ...DEQ 6-1990, f. & cert. ef. 3-13-90

The *Director's Recommendation* to reject applications submitted beyond two years after the construction of the facility is completed is authorized by ORS 468.165 (6), which states:

The application shall be submitted after construction of the facility is substantially completed and the facility is placed in service and within two years after construction of the facility is substantially completed. Failure to file a timely application shall make the facility ineligible for tax credit certification. An application shall not be considered filed until it is complete and ready for processing. The commission may grant an extension of time to file an application for circumstances beyond the control of the applicant that would make a timely filing unreasonable. However, the period for filing an application shall not be extended to a date beyond December 31, 2003.

Commission Rejection

Willamette Industries, Inc. - Application Number 4570

The Department recommendations rejecting application number 4570 for failure to file a timely application. However, the Department and the applicant, Willamette Industries, Inc., disagree on the date construction of the facility was substantially complete. This application was presented to the Commission on November 21, 1997 and December 11, 1998. At the applicant's request, the application was pulled from the agenda because the applicant wished to present additional information and to address the Commission but was unable to attend the Commission meetings. The additional information did not change staff's recommendation.

Willamette Industries submitted application number 4570 on December 26, 1995 — over two years after the date construction was completed. They are the owner and applicant of the claimed facility. Willamette Industries entered into a lease with Far West Fibers, an independent recycling company, on January 1, 1994; four months after Far West Fibers began operating the claimed facility on September 27, 1993.

The applicant claims that as the lessor of the facility and the fact that there was no lease between the independent recycling company and the applicant until January 1 1994, the date of substantial completion of the facility should be determined to be the effective date of the lease. Under this reasoning, the application would have been submitted in a timely manner according to statute and rule. The Department rejects this reasoning since operations began on September 27, 1993 – two years beyond the date construction was completed.

Department Rejection

Willamette Industries, Inc. - Application Number 4800

This application was first presented to the Environmental Quality Commission on September 17, 1998 and again on December 11, 1998. The applicant indicated that they wished to address the Commission at those times but was unable to attend the meetings. The Department will formally reject application number 4800 after November 18, 1999.

This application was received prior to the rules adopted on May 1, 1998; therefore, the application was reviewed according to the rules in effect at the time.

On October 13, 1997, SJO Consulting Engineers requested additional information. On April 11, 1998, the 180 days in which Willamette Industries had to respond to the request for additional information passed. SJO returned the application and their report to the Department pursuant to the Tax Credit Coordinator's instructions. On June 5, 1998, Willamette Industries responded to the request for additional information – too late to meet the 180-day deadline.

General Discussion

Hazardous Waste Pollution Control Facilities

This section provides a general discussion regarding hazardous waste facilities. It is presented here because two hazardous waste pollution control applications are presented in the Staff Report – one for approval and the other for denial. Intel Corporation claimed a pollution control facility for hazardous waste on application number 5137 that staff recommended for approval in Attachment B. Valmont Industries also claimed a hazardous waste facility that staff recommended for denial in Attachment C.

Applicants sometimes claim facilities for containing hazardous materials that will be used in their production process. These facilities are generally not eligible under the Pollution Control Facility Tax Credit program when the material does not meet the definition of Hazardous Waste. Also, the facility must treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005:

"Hazardous waste" does not include radioactive material or the radioactively contaminated containers and receptacles used in the transportation, storage, use or application of radioactive waste, unless the material, container or receptacle is classified as hazardous waste under paragraph (a), (b) or (c) of this subsection on some basis other than the radioactivity of the material, container or receptacle. Hazardous waste does include all of the following which are not declassified by the commission under ORS 466.015 (3):

- (a) Discarded, useless or unwanted materials or residues resulting from any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling or mitigating of insects, fungi, weeds, rodents or predatory animals, including but not limited to defoliant, desiccants, fungicides, herbicides, insecticides, nematocides and rodenticides.
- (b) Residues resulting from any process of industry, manufacturing, trade or business or government or from the development or recovery of any natural resources, if such residues are classified as hazardous by order of the commission, after notice and public hearing. For purposes of classification, the commission must find that the residue, because of its quantity, concentration, or physical, chemical or infectious characteristics may:
 - (A) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - (B) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.
- (c) Discarded, useless or unwanted containers and receptacles used in the transportation, storage, use or application of the substances described in paragraphs (a) and (b) of this subsection.

Reviewers are instructed to determine if a facility that is claimed as a hazardous waste facility could qualify as a water quality

Topic Discussion Construction Completed and Placed in Service – Attachment E

The topic discussion presented in Attachment E provides guidance on how the Department determines if an application was filed in a timely manner.

Conclusions

The recommendations for action on the attached applications are consistent with statutory provisions and administrative rules related to the pollution control facility, pollution prevention and reclaimed plastic product tax credit programs.

Recommendation for Commission Action

The Department recommends the Commission approve certification for the tax credit applications as presented in Attachment B of the Department's Staff Report.

The Department recommends the Commission deny the applications presented in Attachment C of the Department's Staff Report.

The Department recommends the Commission reject Application Number 4570 as presented in Attachment D of the Department's Staff Report.

Intended Follow-up Actions

Staff will notify applicants the Environmental Quality Commission's action. The Department will notify applicants with denied or rejected applications or applications with a facility cost reduced from the amount claimed on the application by Certified Mail. Staff will notify Department of Revenue of any Issued, Transferred or Revoked certificates.

Attachments

- A. Summary
- B. Approvals
- C. Denials
- D. Rejections
- E. TOPIC DISCUSSION: Construction Completed and Placed In Service


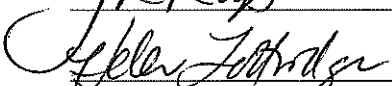
Reference Documents (available upon request)

- 1. ORS 468.150 through 468.190.
- 2. OAR 340-016-0005 through 340-016-0050.
- 3. ORS 468A.095 through 468A.098.
- 4. OAR 340-016-0100 through 340-016-0125.
- 5. ORS 468.451 through OAR 468.491.
- 6. OAR 340-017-0010 through 340-017-0055.

Approved:

Section:

Division:

Report Prepared by: Margaret Vandehey

Phone: (503) 229-6878

Date Prepared: November 1, 1999

Attachment A

Summary

Application Summary

| Application Number | Applicant | Description of Facility | Facility Cost | Percent Allocable | Possible Tax Benefit |
|--|------------------------------------|---|---------------------|-------------------|----------------------|
| Approvals | | | | | |
| Pollution Control Facility Tax Credit | | | | | |
| Air | | | | | |
| 4789 | Willamette Industries, Inc. | A nitrogen oxide reduction system | \$945,864 | 100% | \$472,932 |
| 4799 | Valmont Industries, Inc. | A Fabric Filter Air System baghouse model #392-10 | \$109,876 | 100% | \$54,938 |
| 4927 | Willamette Industries, Inc. | A geoenergy electrostatic precipitator, six baghouses, and the connections between six existing baghouses to a pneumatic conveyor system. | \$777,237 | 100% | \$388,619 |
| 4934 | Willamette Industries, Inc. | Two Geoenergy 1013-121 wet E-tube electrostatic precipitators. | \$1,131,915 | 100% | \$565,958 |
| 4966 | Tokai Carbon U.S.A., Inc. | Thermal oxidizer, scrubbers & wet ESP system. | \$554,310 | 100% | \$277,155 |
| 4977 | Willamette Industries, Inc. | A Particulate Emission Control System, model HFC 40. | \$640,186 | 100% | \$320,093 |
| 4978 | Willamette Industries, Inc. | A Geoenergy E-Tube Electrostatic Precipitator System, model 1013-248 2TR. | \$1,307,242 | 100% | \$653,621 |
| 4979 | Willamette Industries, Inc. | A Wellons Electrostatic Precipitator (ESP) | \$615,050 | 100% | \$307,525 |
| 4986 | Willamette Industries, Inc. | A Western Pneumatic model WP460 and 3 Western Pneumatic model WP630 baghouses. | \$355,138 | 100% | \$177,569 |
| 4987 | Willamette Industries, Inc. | A fly ash collection containment system. | \$45,872 | 100% | \$22,936 |
| 5045 | Mitsubishi Silicon America | installation of nox scrubber | \$655,955 | 100% | \$327,978 |
| 5139 | Intel Corporation and Subsidiaries | Three corrosive exhaust scrubbers, one VOC abatement unit and desorber | \$1,858,452 | 100% | \$929,226 |
| 5156 | JR Simplot Company | A wet electrostatic precipitator, model # BTP10*15, serial No. PWI-1696 | \$757,749 | 100% | \$378,875 |
| 5174 | Dynic USA Corporation | A regenerative thermal oxidizer | \$511,501 | 100% | \$255,751 |
| 5178 | Lamb-Weston, Inc. | A wet/dry electrostatic precipitator | \$407,181 | 100% | \$203,591 |
| 5227 | Willamette Industries, Inc. | stock pile cover system | \$118,175 | 100% | \$59,087 |
| 5259 | Sharp Auto & Paint Works | An ECO-12 recover-recycle-recharge 9751A0315 and snap-on ECO-134 recover-recycle-recharge 980681959 from Snap-on Diagnostics. | \$3,290 | 100% | \$1,645 |
| 5268 | Clemens Automotive, Inc. | A Viper GT R-12 & R-134A refrigerant recovery and recycling machine. | \$4,399 | 100% | \$2,200 |
| Air (18 applications) | | | \$10,799,392 | | \$5,399,696 |

| Application Number | Applicant | Description of Facility | Facility Cost | Percent Allocable | Possible Tax Benefit |
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|

Pollution Control Facility Tax Credit

USTs

| | | | | | |
|------------------------------|---------------------------------|--|------------------|------|------------------|
| 5157 | T. W. D., Inc. | Three doublewall fiberglass tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, line/turbine leak detectors, overfill alarm, sumps, oil/water separator, automatic shutoff valves and Stage II vapor recovery. | \$165,596 | 93% | \$77,002 |
| 5185 | Cain Petroleum, Inc. | installed a tank system to comply with underground storage tank requirements. | \$197,978 | 94% | \$93,050 |
| 5228 | M&M Rentals Co | upgrade retail fuel station to new standards | \$126,288 | 92% | \$58,092 |
| 5229 | M&M Rentals Co | update retail fuel station to meet new standards | \$169,962 | 87% | \$73,933 |
| 5233 | Hockema Coast Oil Co. | One doublewall fiberglass tank with two compartments, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, overfill alarm, line leak detectors, sumps and automatic shutoff valves | \$133,477 | 90% | \$60,065 |
| 5246 | Mobile One-Stop/Dorothy Refinot | An epoxy tank lining and galvanic cathodic protection for four underground storage tanks, doublewall flexible plastic piping, spill containment basins, turbine leak detectors, overfill alarm, sumps and automatic shutoff valves | \$105,390 | 98% | \$51,641 |
| 5277 | Don Worthington | | \$49,820 | 100% | \$24,910 |
| USTs (7 applications) | | | \$948,511 | | \$438,694 |

| Application Number | Applicant | Description of Facility | Facility Cost | Percent Allocable | Possible Tax Benefit |
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|

Pollution Control Facility Tax Credit

Water

| | | | | | |
|-------------------------------|---------------------------------------|--|--------------------|------|--------------------|
| 4628 | Boeing Company | A chrome, acid/alkali and cyanide wastewater pretreatment system. | \$3,704,836 | 100% | \$1,852,418 |
| 4996 | Bushwhackers/Bushwhacker Saloon Corp. | Stormwater compost in vault system. | \$18,000 | 100% | \$9,000 |
| 5004 | Widmere Brothers Brewing Company | waste water collection system and pH adjustment system | \$405,245 | 100% | \$202,623 |
| 5020 | Willamette Industries, Inc. | A storm water control system | \$153,516 | 100% | \$76,758 |
| 5138 | Intel Corporation and Subsidiaries | An acid waste neutralization system and a waste phosphoric acid system | \$1,683,111 | 100% | \$841,556 |
| 5254 | Westmoreland Cleaners, Inc. | A MIST-IT Mark II (serial # 1864) manufactured by Air Quality Laboratories | \$2,500 | 100% | \$1,250 |
| 5265 | New China Laundry & Dry Cleaning | A metal drip containment pan for dry cleaning machines and a MIST-IT Mark II | \$3,381 | 100% | \$1,690 |
| 5266 | Happy Hangers Cleaners | A metal drip containment pan for dry cleaning machines | \$3,300 | 100% | \$1,650 |
| Water (8 applications) | | | \$5,973,889 | | \$2,986,944 |

Summary for Pollution Control Facility Tax Credit (42 applications)
\$19,449,387 **\$9,689,132**

Pollution Prevention Tax Credit

Perc

| | | | | | |
|-----------------------------|--------------------|----------------------------------|-----------------|------|-----------------|
| 5258 | Ken's Dry Cleaning | dry to dry perc cleaning machine | \$33,382 | 100% | \$16,691 |
| Perc (1 application) | | | \$33,382 | | \$16,691 |

Summary for Pollution Prevention Tax Credit (1 application)
\$33,382 **\$16,691**

Reclaimed Plastics Products Tax Credit

Plastics

| | | | | | |
|----------------------------------|-----------------------|--|------------------|------|-----------------|
| 5240 | R Plastics, Inc. Inc. | plastic granulator to grind flat sheet into pellets for reuse | \$8,400 | 100% | \$4,200 |
| 5249 | BOWCO INC. | A Cincinnati Milacron (400 ton) injection molding machine -- serial number H04A0193004 | \$105,000 | 100% | \$52,500 |
| Plastics (2 applications) | | | \$113,400 | | \$56,700 |

Summary for Reclaimed Plastics Products Tax Credit (2 applications)
\$113,400 **\$56,700**

Summary for Approve (45 applications) **\$19,596,169** **\$9,762,523**

| Application Number | Applicant | Description of Facility | Facility Cost | Percent Allocable | Possible Tax Benefit |
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|
|--------------------|-----------|-------------------------|---------------|-------------------|----------------------|

Rejections

Pollution Control Facility Tax Credit

Department

Air

| | | | | | |
|------|-----------------------------|--|-----------|------|----------|
| 4800 | Willamette Industries, Inc. | An 80,000 ACFM negative air collection system to reduce the fugitive emissions escaping into the atmosphere. | \$110,418 | 100% | \$55,209 |
|------|-----------------------------|--|-----------|------|----------|

| | | | | | |
|----------------------------|--|--|------------------|--|-----------------|
| Air (1 application) | | | \$110,418 | | \$55,209 |
|----------------------------|--|--|------------------|--|-----------------|

Commission

Solid Waste

| | | | | | |
|------|-----------------------------|--|-------------|------|-------------|
| 4570 | Willamette Industries, Inc. | Ebterprise Baler (Model 16-ezrrb-200), Kraus Baler Conveyor (93KRACONV0050) Krause Sorting Conveyer (93KRACONV0050), Michigan Wheel Loader (SN L-70v61201), Mitsubishi 6Mlb Fork Trk (SNAF89A-00546), Mitsubishi 6Mlb Fork Trk(SNAF89A-00529)etc | \$2,596,818 | 100% | \$1,298,409 |
|------|-----------------------------|--|-------------|------|-------------|

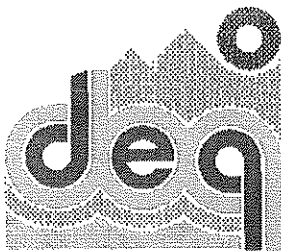
| | | | | | |
|------------------------------------|--|--|--------------------|--|--------------------|
| Solid Waste (1 application) | | | \$2,596,818 | | \$1,298,409 |
|------------------------------------|--|--|--------------------|--|--------------------|

| | | | | | |
|---|--|--|--------------------|--|--------------------|
| Summary for Pollution Control Facility Tax Credit (2 applications) | | | \$2,707,236 | | \$1,353,618 |
|---|--|--|--------------------|--|--------------------|

| | | | | | |
|--|--|--|--------------------|--|--------------------|
| Summary for Reject (2 applications) | | | \$2,707,236 | | \$1,353,618 |
|--|--|--|--------------------|--|--------------------|

Attachment B

Approvals



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Boeing Company**
Application No. **4628**
Facility Cost **\$3,704,836**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility Tax Credit: Water Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C Corporation operating as an airplane parts manufacturer. The applicant's taxpayer identification number is 91-0425694 and their address is:

**PO Box 3707
Seattle, WA 98124-2207**

Facility Identification

The certificate will identify the facility as:

**A chrome, acid/alkali and cyanide
wastewater pretreatment system.**

The applicant is the operator of the facility located at:

**19000 NE Sandy Blvd
Gresham, OR**

Technical Information

The wastewater pretreatment plant was built to treat plating shop rinses and spent solution for removal of cyanide and heavy metals before discharge to the City of Gresham sewage treatment plant. Cyanide rinse wastewater in 8,000 to 10,000 batches at a total flow rate of 6 gpm is treated by alkaline chlorination using a 15% sodium hypochlorite. About 25 gpm of spent non-cyanide plating wastewater is pumped into 3 flow equalization and transfer tanks. From the equalization tanks the wastewater is combined with the cyanide wastewater and transferred to the chrome reduction and heavy metal treatment system where sodium metabisulfite and coagulant are added. Then the combined flow is pumped to a cross flow microfiltration system and to the effluent storage tanks for pH adjustment. From the tanks the treated effluent is discharged to the City of Gresham sanitary sewer system. Sludge from the microfiltration system is pumped to a filter press and dried to about 95% solids. About 1-55 gallon drum per week of dried solids is disposed of to an offsite hazardous waste disposal facility.

Eligibility The facility is eligible because:

- ORS 468.155 The **principal purpose** of this **new installation** is to comply with a requirement (1)(a) to control a substantial quantity of water pollution. The requirement is imposed by the Department under OAR 340-45-0063. The City of Gresham, owner of sewerage system receiving industrial waste is responsible for assuring that the industrial contributor meets the categorical pretreatment standards established by the federal EPA.
- ORS 468.155 The control is accomplished by eliminating industrial waste with the use of (1)(b)(A) treatment works for industrial waste as defined in ORS 468B.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6). The applicant claimed a pretreatment facility that was modified since its completion in 1995. The modification occurred in 1995 to 1996.

| | |
|---|------------------|
| <i>Application Received</i> | 6/14/1996 |
| <i>Application Substantially Complete</i> | 10/12/99 |
| <i>Construction Started</i> | 6/21/1991 |
| <i>Construction Completed</i> | 5/20/1995 |
| <i>Facility Placed into Operation</i> | 7/8/1994 |

Facility Cost

| | |
|--|--------------------|
| Claimed Facility Cost | \$4,090,600 |
| Non-allowable Costs | |
| 85-105 Expansion: Building cost allocation for the area <u>not</u> occupied by the wastewater pretreatment system, wastewater lab, waste disposal terminal and scrubber area. Based on square footage. | -\$282,631 |
| Spare Parts for the waste control system. | - \$11,788 |
| Quality Plan, Testing and Inspection FO 9.1-WWT | -\$24,282 |
| Fire Protection | -49,889 |
| Treatability Study for Zi/Ni | -\$8,200 |
| Operating Expenses - General Supplies and Materials | -\$8,974 |
| Allowable Facility Cost | \$3,704,83 |

A Cost Summary Detail accompanied the application. Deloitte & Touche LLP provided the independant auditor's report. Symonds, Evans and Larson provided the accounting review on behalf of the Department. Allowable internal labor costs (\$371,886) were calculated by multiplying the internal labor costs for the entire expansion project by the ratio of the square footage associated with the claimed facility to the square footage of the entire expansion project

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings in costs. The average annual operating cost is \$334,739. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

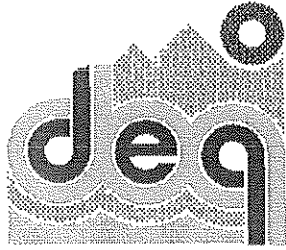
Compliance

The facility is in compliance with Department rules and statutes and with the federal Environmental Protection Agency rules.

DEQ permits issued to facility:

No DEQ permits issued to this facility. City of Gresham Publicly Owned Treatment Works (POTW) Industrial Wastewater Discharge Permit #320 included pretreatment standards for new wastewater pretreatment plants. The claimed facility is in compliance with the limits and conditions of the waste discharge permit issued by the City of Gresham.

Reviewers: RCDulay, NWR, DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries**
Application No. **4789**
Facility Cost **\$945,864**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a manufacturing facility producing abrasion resistant steel castings. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

Nitrogen oxide reduction system

The applicant is the owner of the facility located at:

**3152 Old Salem Road
Albany, OR 97321**

Technical Information

A nitrogen oxide (NO_x) reduction system was installed in the plant cogeneration system to reduce and control emissions. Components include:

1. A water injection system provided by GE Motors & Industrial Systems.
2. A Selective Catalyst Reduction (SCR) system, including an ammonia injection system, provided by Babcock & Wilcox.
3. Emission analyzers and gas monitoring equipment provided by Graseby STI.
4. Storage tank and loading facility for anhydrous ammonia.

The primary function of the SCR is to catalytically reduce gas turbine flue gas NO_x emissions to nitrogen and water vapor using ammonia (NH₃) as a reducing agent. The SCR utilizes a fixed bed, honeycomb-type catalyst in a horizontal flow reactor. Ammonia is injected into the reactor, with maximum surface contact between flue gas and catalyst to obtain optimum NO_x reduction. Water is injected into the gas turbine where it mixes with fuel to lower the combustion temperature, thereby reducing the formation of NO_x.

Water injection and Selective Catalyst Reduction (SCR) systems are considered best available technology for NO_x reduction.

Without the SCR system, an estimated 500 tons per year of NO_x emissions would be discharged. Actual emissions were 88.3 tons in 1997. The SCR system has a 75-90% destruction efficiency rating.

Eligibility

- ORS 468.155 (1)(a)(B) The **principal purpose** of this **new equipment and installation** is to prevent and reduce a substantial quantity of air pollution.
- ORS 468.155 (1)(b)(B) The disposal or elimination of or redesign to eliminate air contamination sources and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>7/1/97</u> |
| <i>Additional Information Requested</i> | <u>1/24/98</u> |
| <i>Additional Information Received</i> | <u>7/16/98</u> |
| <i>Application Substantially Complete</i> | <u>10/07/99</u> |
| <i>Construction Started</i> | <u>10/94</u> |
| <i>Construction Completed</i> | <u>12/95</u> |
| <i>Facility Placed into Operation</i> | <u>7/31/95</u> |

Facility Cost

| | |
|--|--------------------------|
| Claimed Facility Cost | \$ 1,045,564 |
| Unsubstantiated Cost – estimates provided by applicant’s engineer. An estimate is not an acceptable method for allocating costs. | -\$ 99,800 |
| Allowable Facility Cost | <u>\$ 945,864</u> |

KPMG Peat Marwick LLP provided the certified public accountant’s statement on behalf of Willamette Industries. The cost of the facility is in excess of \$500,000; therefore, Symonds, Evans & Larson, CPA, PC performed the accounting review on behalf of the DEQ. Vendor invoices and letters from contractors substantiated most of the facility cost. Allowable overhead costs were calculated by multiplying the allowable direct costs of the claimed facility by the ratio of the related overhead costs to the total direct costs for the entire cogeneration project.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

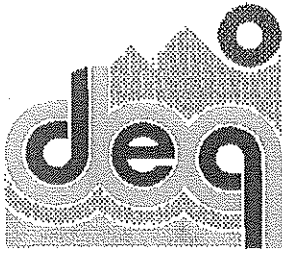
| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues are associated with this facility therefore, there is zero return on the investment. |
| ORS 468.190(1)(c) Alternative Methods | The applicant identified no alternatives. |
| ORS 468.190(1)(d) Savings or Increase in Costs | There are no savings from the facility. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance/Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders and that no DEQ air permits have been issued for the Willamette Industries Albany Paper Mill site.

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Symonds, Evans & Larson, CPA, PC
Dave Kauth, AQ-DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Valmont Industries, Inc.**
Application No. **4799**
Facility Cost **\$109,876.00**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C corporation**
Business: **a galvanizing plant.**
Taxpayer ID: **47-0351813**

The applicant's address is:

**PO Box 358
Valley, NE 68064-0358**

Facility Identification

The certificate will identify the facility as:

**Fabric Filters Air System Baghouse,
Model 392-10**

The applicant is the owner of the facility located
at:

**9700 SW Herman Road
Tualatin, OR 97062**

Technical Information

The claimed facility consists of a baghouse manufactured by Fabric Filters Air Systems, Model Number 392-10, with a 22,800 cfm fan and ducting from the building to the baghouse. The equipment was installed to control particulate emissions generated from the applicant's hot dip galvanizing furnace. The emissions after the installation of the claimed facility are less than 600 pounds per year. The applicant claims this is a reduction of approximately 10,600 pounds per year.

The applicant also claimed an enclosure and ductwork used to capture the particulate and convey it to the furnace.

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of this **new equipment** is to prevent a substantial quantity of air pollution. The baghouse is required to meet the limitations set forth in the applicants ACDP #34-0005.

The primary and most important purpose of the enclosure and ducting is to minimize employee exposure to zinc fumes not air pollution control.

ORS 468.155 (1)(b)(B) The prevention is accomplished by the elimination of air pollution and the use of the installed baghouse which meets the definition in ORS 468A.005 of an air cleaning device.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>7/21/97</u> |
| <i>Additional Information Requested</i> | <u>10/8/97</u> |
| <i>Additional Information Received</i> | <u>11/10/97</u> |
| <i>Application Substantially Complete</i> | <u>9/30/99</u> |
| <i>Construction Started</i> | <u>9/1/95</u> |
| <i>Construction Completed</i> | <u>2/15/96</u> |
| <i>Facility Placed into Operation</i> | <u>2/15/96</u> |

Facility Cost

| | |
|----------------------------|--------------------------|
| Claimed Facility Cost | \$175,437 |
| Non-allowable Costs | |
| Enclosure | \$ - 36,928 |
| Enclosure Installation | \$ - 20,123 |
| Enclosure Engineering | \$ - 2,500 |
| Interior ductwork | \$ - 2,123 |
| Enclosure Electrical Costs | \$ - 3,887 |
| Allowable Facility Cost | <u>\$ 109,876</u> |

A distinct portion of the facility cost claimed makes an insignificant contribution to pollution control and has been subtracted from the facility cost. The facility cost was greater than \$50,000 but less than \$500,000. Therefore, **Van Beek and Company, CPA** performed an accounting review on behalf of the applicant and in accordance with Department guidelines.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. The material collected is sent to a landfill in Arlington, Oregon. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 20 years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | The applicant considered using a wet scrubber; however, this method had a higher initial cost and created sludge that would have a high disposal cost. |
| ORS 468.190(1)(d) Savings or Increase in Costs | There are no savings from this facility. The average annual maintenance and operating costs for the claimed facility is \$11,097. This amount includes property taxes, electricity, and disposal costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

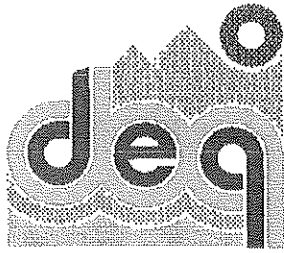
Considering these factors, the percentage allocable to pollution control is 100%.

Compliance and Other Tax Credits

The applicant claims the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility:

Hazardous Waste Generation, ID # OR 0000935847
ACDP 34-0005

Reviewers: Dennis Cartier, Associate, SJO Consulting Engineers
Lois Payne, P.E., SJO Consulting Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries, Inc.**
Application No. **4927**
Facility Cost **\$777,237**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a manufacturing facility producing medium density fiberboard. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

A geoenergy electrostatic precipitator, six baghouses, and the connections between six existing baghouses to a pneumatic conveyor system.

The applicant is the owner of the facility located at:

**50 North Danebo Avenue
Eugene, OR 97402**

Technical Information

The claimed air pollution control facility consists of a new Geoenergy electrostatic precipitator, numerous secondary baghouses, and connecting six additional baghouses to a pneumatic conveyor system. The following components are included in this application:

Geoenergy electrostatic precipitator (ESP), an E-tube style wet electrostatic precipitator designed to control the emissions from the first stage of a new two-stage flash-tube dryer. It is designed for 60,000 acfm. An existing wet ESP serves in tandem with the new ESP. The existing wet ESP was not large enough to handle the first-stage volume and maintain air quality requirements so an additional Geoenergy wet ESP was installed.

Previously the particleboard process utilized two dryers, a rotary pre-dryer and a flash tube final dryer. Exhaust off the pre-dryer was controlled by a wet ESP while the flash dryer exhaust was controlled by a low energy wet scrubber. The new Westec first stage dryer exhaust is controlled by

two wet ESPS, while the Westec second stage dryer exhaust is controlled by a new baghouse (BH-11, described below). The new two-stage flash-tube dryer is designed for an air volume of 100,000 cfm.

WP630 Baghouse filter (BH-1) removes particulate from two exhaust airstreams. Exhaust discharged from the reject, trim, and clean-up cyclone and from the shaveoff cyclone is routed to this baghouse.

WP386 Baghouse filter (BH-2) removes particulate from the ducted airstreams pulling dust off of the forming conveyor system which is operated by four vacuum fans.

WP42 Baghouse filter (BH-6) removes sanderdust generated at the discharge of Sander Dust Silo No. 1 and 2.

WP72 Baghouse filter (BH-8) removes particulate from the airstream pulling dust off the Saw Trim Silo. The saw trim air system was modified which added a new baghouse at the raw material collecting screw.

Donaldson Baghouse filter (BH-11), a relay exhaust baghouse filter system with an air to cloth ratio of 5: 1, fans and associated equipment were added to control particulate emissions from the exhaust off the second stage of the dryer.

WP121 Baghouse filter (CY-1) removes dust from the cross belt sander.

Six existing baghouse filters were tied into a **new pneumatic controlled raw material conveying system** (BH-3, sawtrim, BH-4, sander, BH-5, boiler, BH-7, sanderdust, BH-9 raw material, and BH-10, truck bunker). The product conversion from particleboard to medium density fiberboard required more air to be handled which would create more emissions. In order to maintain or reduce emissions, the raw material conveyor was converted to a pneumatic conveying system.

Previously, the particleboard production process relied on a mechanical conveying system for moving raw material through the plant. This system was made up of many conveyors dumping to other conveyors, creating a fugitive emissions problem at each drop out point. The conversion to medium density fiberboard (MDF) production resulted in the inability to convey this new type of fiber with the old mechanical system because of the fiber characteristics.

Air emissions of all criteria pollutants except CO and NO_x have been lowered as a result of the additional ESP, the new baghouses. The pneumatic conveying system conveys the product to the air cleaning devices. Air emission rates have been reduced as indicated in the table below. Values shown are in tons per year.

| Pollutant | 1977 Particleboard Baseline | 1994 Particleboard Actual | 1996 MDF Projected | Change from 1994 | Change from 1977 |
|-----------|-----------------------------------|---------------------------------|--------------------------|------------------------|------------------------|
| CO | 46 | 53 | 63 | 10 | 17 |
| Lead | .006 | .0017 | .0006 | -.0011 | -.0054 |
| NOx | 100 | 110 | 133 | 23 | 33 |
| PM | 195 | 94 | 56 | -38 | -139 |
| PM10 | 148 | 77 | 50 | -27 | -98 |
| S02 | 2 | 2 | 1 | -1 | -1 |
| VOC | 202 | 175 | 181 | 6 | -21 |

Eligibility

ORS 468.155 The **principal purpose** of this **new equipment, devices and installation** is to
 (1)(a)(B) **prevent** and **reduce** a substantial quantity of air pollution as required by ACDP
 #200529

ORS 468.155 The disposal or elimination of or redesign to eliminate **air contamination**
 (1)(b)(B) **sources** and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within
 the timing requirements of ORS
 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>2/2/98</u> |
| <i>Additional Information Requested</i> | <u>3/20/98</u> |
| <i>Additional Information Received</i> | <u>9/15/98</u> |
| <i>Application Substantially Complete</i> | <u>11/13/98</u> |
| <i>Construction Started</i> | <u>9/94</u> |
| <i>Construction Completed</i> | <u>2/19/96</u> |
| <i>Facility Placed into Operation</i> | <u>2/19/96</u> |

Facility Cost

| | |
|----------------------------|--------------------------|
| Claimed Facility Cost | \$ 1,511,959 |
| Non-allowable Costs | |
| Pneumatic Conveying System | (330,870) |
| Unsubstantiated Costs. | (403,852) |
| Allowable Facility Cost | <u>\$ 777,237</u> |

Copies of purchase orders and invoices substantiated most of the cost of the facility and Willamette Industries provided an acceptable method for allocating the remaining allowable costs. Maggie Vandehey performed an accounting review on behalf of the Department. KPMG Peat Marwick L.L.P. provided the certified public accountant's statement on behalf of Willamette Industries.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues are associated with this facility; therefore there is zero return on the investment. |
| ORS 468.190(1)(c) Alternative Methods | The applicant identified no alternatives. |
| ORS 468.190(1)(d) Savings or Increase in Costs | There are no savings from the facility. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

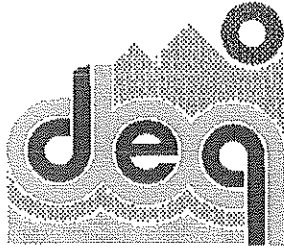
Considering these factors, the percentage allocable to pollution control is 100%.

Compliance/Other Tax Credits

The applicant claims the facility is in compliance with Department rules and statutes and with EQC orders. The following DEQ permits have been issued to Willamette Industries Eugene MDF Division:

- ACDP 200529, issued 12/95
- Storm Water, 1200-Z, issued 10/1/92
- Waste water 1700-J, issued 2/1/95

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dave Kauth, DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries, Inc.**
Application No. **4928**
Facility Cost **\$723,654**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility Tax Credit: Solid Waste Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a paper mill. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue
Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

Wood waste recovery system.

The applicant is the owner of the facility located at:

**50 North Danebo Avenue
Eugene, OR 97402**

Technical Information

This facility receives and purchases ground urban wood waste, for example, old pallets and construction scrap, from wood processors. The facility screens and cleans this material prior to adding it to the feedstock mix used to manufacture medium density fiberboard (MDF). The MDF plant operated prior to installation of this facility and could continue to operate without this facility.

Eligibility

- ORS 468.155 The **sole purpose** of this **new structure and equipment** is to prevent, control or
(1)(a) reduce a substantial quantity of solid waste.
- ORS 468.155 The use of a material recovery process which obtains useful material from
(1)(b)(D) material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>2/2/98</u> |
| <i>Additional Information Requested</i> | <u>4/15/98</u> |
| <i>Application Substantially Complete</i> | <u>2/10/98</u> |
| <i>Construction Started</i> | <u>2/19/96</u> |
| <i>Construction Completed</i> | <u>2/19/96</u> |
| <i>Facility Placed into Operation</i> | <u>2/19/96</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | \$730,586 |
| Non-allowable Costs | <u>(\$6,932)</u> |
| Allowable Facility Cost | \$723,654 |

KPMG Peat Marwick provided the certified public accountant's statement verifying the cost of the claimed facility. Symonds, Evans & Larson, P.C. provided the accounting review on behalf of the Department. Vendor invoices and other general contractor records substantiated \$565,899 of the claimed costs. The remainder of the costs were allocated by acceptable methods.

- The allocated engineering cost is \$46,753. This was determined by multiplying the project engineering costs by the ratio of direct facility costs to the total cost of the entire MDF project. By using this method, engineering costs were reduced from the estimate provided by the applicant by \$6,932.
- The allocated electrical cost is \$107,184. This was determined by multiplying the electrical expenses for the Applicant's entire MDF project by the ratio of horsepower associated with the claimed facility to the horsepower of the entire raw material area.

Facility Cost Allocable to Pollution Control

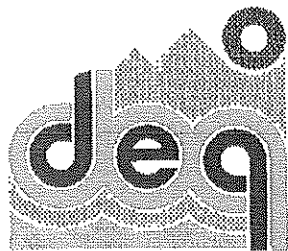
According to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. The average annual cash flow associated with this facility is negative. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits were issued to this facility.

Reviewers: William R Bree, DEQ
Symonds, Evans & Larson



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries, Inc.**
Application No. **4934**
Facility Cost **\$1,131,915**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a particleboard manufacturer. The applicant's taxpayer identification number is 93-0312940 and their address is:

**Duraflake Division
1300 SW Fifth Ave., Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

**Two Geoenergy 1013-189 Wet E-tube
Electrostatic Precipitators (ESPs)**

The applicant is the owner of the facility located at:

**2550 Old Salem Road, NE
Albany, OR 97321**

Technical Information

The claimed facility consists of two GeoEnergy E-tube wet ESPs, model 1013-189 with a 99% destruction efficiency. The wet ESPs remove particulate generated from the newly installed Westec 120 dryer and from the existing Hiel 105 dryer at the Duraflake plant. Wet ESPs are considered the best available control technology for controlling particulate emissions and opacity. The claimed facility reduced particulate emissions from 85.68 tons per year (tpy) to 42.84 tpy and opacity from 20% to less than 5%.

One of the wet ESPs replaced the wet scrubber connected to the Hiel 105 dryer. This old wet scrubber had previously been certified. The new Westec dryer replaced the existing Hiel 85 dryer and the second new wet ESP replaced a second wet scrubber off of the old Hiel 85 dryer. This wet scrubber had not previously been certified.

Eligibility

- ORS 468.155 (1)(a)(A) The **principal purpose** of this **new equipment installation** is to comply with the requirements of the applicants Oregon Title V Operating Permit No. 22-0143 issued 12/1/95. Condition 3.c of the permit states, "At any time during the permit term, the permittee may modify emissions unit 205 by replacing the existing 9-foot diameter dryer with a 12-foot diameter gas fired Westec dryer. If this modification takes place, the permittee **shall** install wet ESP control devices on emissions units 203 and 205. These control devices would be identified as ESP ET-1 and ET-2....."
- ORS 468.155 (1)(b)(A) The wet ESPs **removes contaminates** from the exhaust air, **eliminating air pollution** as defined in ORS 468A.005.
- ORS 468.155 (2)(e) ET-1 is eligible as a **replacement facility** since it is a requirement imposed by the Department and it replaced a certified wet scrubber (Certificate No. 1382 on March 5, 1982.)

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>2/5/98</u> |
| <i>Additional Information Requested</i> | <u>4/14/98</u> |
| <i>Additional Information Received</i> | <u>10/5/98</u> |
| <i>Additional Information Requested</i> | <u>3/4/99</u> |
| <i>Additional Information Received</i> | <u>4/29/99</u> |
| <i>Additional Information Received</i> | <u>7/12/99</u> |
| <i>Application Substantially Complete</i> | <u>7/22/99</u> |
| <i>Construction Started</i> | <u>9/1/95</u> |
| <i>Construction Completed</i> | <u>2/16/96</u> |
| <i>Facility Placed into Operation</i> | <u>2/16/96</u> |

Facility Cost

| | |
|--|---------------------|
| Claimed Facility Cost | \$ 1,478,486 |
| Non-allowable Costs | |
| like-for-like replacement cost (see below) | (\$80,444) |
| Unsubstantiated cost @ 18% | (\$266,127) |
| Allowable Facility Cost | \$1,131,915 |

Copies of the purchase order and invoices were provided, which substantiated 82% of the total claimed facility cost. **KPMG Peat Marwick LLP** provided the certified public accountant's statement on behalf of Willamette Industries. The claimed costs exceed \$500,000, therefore Maggie Vandehey performed the accounting review on behalf of the Department.

“Like-for-Like Replacement Cost” means the current price of providing a new facility of the same type, size and construction materials as the original facility. The replaced wet scrubber accounts for \$54,531 of the total facility cost on Certificate No. 1382; which was issued in the amount of \$239,254 and 80% allocable to pollution control. The replaced facility began operation in September 1980 when the consumer price index (CPI) was 84. The replacement facility was placed into operation in February 1996 when the CPI was 154.9. Therefore, the replacement cost of the original facility is calculated as follows:

| | |
|-----------|---|
| \$ 43,625 | Amount allocated to original pollution control facility (\$54,531 x 0.80) = \$43,625 |
| X 1.844 | 2/96 CPI minus 9/80 CPI divided by the 9/80 CPI plus 1 [(154.9 - 84) / 84] + 1 = 1.844 |
| <hr/> | |
| \$80,444 | Like-for-like replacement cost of the original facility |

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000; therefore, according to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

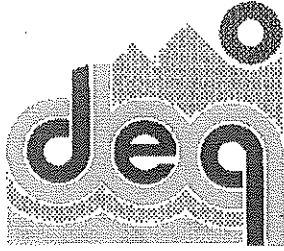
Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to the Willamette Industries Duraflake Particleboard Division site:

Title V Operating Permit #22-0143, issued 12/1/95
NPDES 100668

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 12/11/98

Director's
Recommendation: **APPROVE**

Applicant **Tokai Carbon U.S.A., Inc.**
Application No. **4966**
Facility Cost **\$554,310**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Air & Water Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a carbon processing plant. The applicant's taxpayer identification number is 088-82-328. The applicant's address is:

**4495 NW 235th Avenue
Hillsboro, OR 97124**

Facility Identification

The certificate will identify the facility as:

**Thermal Oxidizer, Scrubbers and Wet
ESP System.**

The applicant is the owner of the facility located at:

**4495 NW 235th Avenue
Hillsboro, OR 97124**

Technical Information

Tokai Carbon USA, Inc., uses a Chemical Vapor Deposition (CVD) process which involves placing parts into a furnace to be coated with silicon carbide. The furnace is filled with a mixture of methyltrichlorosilane (MTS) and hydrogen gases, and heated to a high temperature. The MTS decomposes at high temperature to form hydrogen chloride (HCl) and the carbon and silicon atoms deposit as silicon carbide on the parts to be coated.

After the CVD process is completed, the furnace is purged with nitrogen gas to remove any unreacted MTS, hydrogen chloride and residual hydrogen. The purged gases then go to the pollution control facility. The facility consists of a thermal oxidizer, water scrubber, caustic scrubbers (2) wet electrostatic precipitator (ESP), and is followed by a wastewater treatment system to condition the water for discharge.

The exhaust gases first pass through the thermal oxidizer where unreacted MTS is oxidized to water,

carbon dioxide and more hydrogen chloride. The exhaust gases from the thermal oxidizer then pass through a water scrubber, which cools the exhaust gases and removes some of the hydrogen chloride. After the water scrubber, the exhaust gases pass through one of two caustic scrubbers which are designed to capture hydrogen chloride. The treated gases from the caustic scrubber then pass through the wet ESP, which removes any remaining particulate. The wet ESP was installed after the other portions of the facility were complete to control excess particulate emissions that were coming from the caustic scrubbers.

The wastewater pretreatment system was installed solely to treat wastewater from the air pollution equipment; therefore, these two systems were considered on the same application. The wastewater is neutralized to a pH range of 6.5-10.0 prior to discharge to United Sewerage Agency.

Eligibility

- ORS 468.155 (1)(a) The **principle purpose** of this **new equipment** is to comply with Department requirements imposed by the existing Air Contaminant Discharge Permit.
- ORS 468.155 (1)(b)(A) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005
- OAR-016-0025 (2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases.
- ORS 468.155 (1)(b)(B) The use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | 3/24/98 |
| <i>Additional information requested</i> | 6/26/98 |
| <i>Additional information received</i> | 9/9/98 |
| <i>Application Substantially Complete</i> | 9/9/98 |
| <i>Construction Started</i> | 8/1/96 |
| <i>Construction Completed</i> | 2/1/98 |
| <i>Facility Placed into Operation</i> | 3/1/98 |

Facility Cost

| | <u>Non-allowable</u> | <u>Allowable</u> |
|---|----------------------|-------------------|
| Air Pollution Control Equipment | | \$ 608,522 |
| Water Pollution Control Equipment | | 43,589 |
| Gas yard pad design, concrete and coating under air pollution control equipment to support equipment and reduce the impact of chemicals on groundwater. | | 32,250 |
| Claimed Facility Cost | | <u>\$684,361</u> |
| Epoxy sealant for concrete floor | | 4,500 |
| Subtotal | | <u>\$688,861</u> |
| Non-allowable costs | | |
| Maintenance Platform | 28,005 | |
| Performance Testing – not a condition of permit | 4,000 | |
| Water treatment equipment not related to air pollution control equipment. | 18,589 | |
| Change order costs from Gray related to maintenance: | | |
| Blast gate dampers with flanges | 5,834 | |
| Access ports for spray nozzles | 4,197 | |
| Access ports for mist eliminator pad clean-out | 6,556 | |
| Clean-out tees for dust removal in ductwork | 5,341 | |
| Duplicate spare equipment: | | |
| Filter Housing | 3,800 | |
| Fan | 2,436 | |
| Unsubstantiated Costs | | |
| Company engineering and project management costs, which could not be supported | 55,793 | |
| Subtotal | <u>\$134,551</u> | <u>-\$134,551</u> |
| Allowable Facility Cost | | <u>\$554,310</u> |

Symonds, Evans and Larson LLC performed the accounting review on behalf of the Department. The applicant was unable to locate records supporting payments made to James N. Gray Company, the general contractor. The Department accepted a letter from the general contractor confirming that the applicant paid them \$476,811 for allowable components.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 12 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Other unspecified alternatives were considered but not used because they had a lower control efficiency. |
| ORS 468.190(1)(d) Savings or Increase in Costs | The claimed facility was said to have an annual operating cost of \$45,886 per year as a five-year average. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

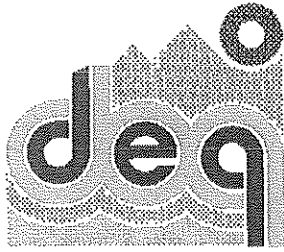
Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility: ACDP No. 34-0013
NPDES Stormwater 1200-Z

Reviewers: Dave Kauth, DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4977 |
| Facility Cost | \$640,186 |
| Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a plywood mill. The taxpayer identification number is 93-0312940 and their address is:

**Foster Division
1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

**A Particulate Emission Control System,
model HFC 40.**

The applicant is the owner of the facility located at:

**611 E Highway 20
Sweet Home, OR 97386**

Technical Information

The claimed facility consists of an Electrified Filter Bed (EFB) model HFC 40 particulate emission control system installed to filter the exhaust gases from the new veneer dryers. System components include the EFB, an air system, the equipment foundation, and the electrical service connections. The system is designed for a maximum gas flow rate of 40,000 acfm and a flue gas temperature of 200-300°F.

The hot exhaust gases pass through the evaporative gas cooler to condense the hydrocarbon vapors into liquid droplets. The droplets are deposited onto the gravel where they fuse into a free flowing liquid. A rear bed retaining screen and lower conical hopper augment effective draining. Periodic batch changing of the gravel is required to maintain acceptable pressure drop. The rated efficiency is 90% for the control of particulate matter.

The Foster Division processes raw logs and/or purchased veneer into plywood. Processes include debarking, peeling, drying, layup, and finishing. Finished products include various sizes and grades of plywood.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new installation and equipment** is to prevent, control or reduce a substantial quantity of air pollution. The requirement is imposed by their ACDP 22-3010, issued 5/97.
- ORS 468.155 (1)(b)(B) The disposal or elimination of or redesign to eliminate air contamination sources and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | 4/2/98 |
| <i>Additional Information Requested</i> | 6/3/98 |
| <i>Additional Information Received</i> | 10/5/98 |
| <i>Application Substantially Complete</i> | 11/6/98 |
| <i>Construction Started</i> | 7/1/97 |
| <i>Construction Completed</i> | 9/19/97 |
| <i>Facility Placed into Operation</i> | 9/19/97 |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | \$ 640,186 |
| Non-allowable Costs | \$ - 0 |
| Allowable Facility Cost | \$ 640,186 |

A certified public accountant's statement was not provided because the claimed costs exceed \$500,000. Maggie Vandehey performed the accounting review on behalf of the Department. Copies of paid invoices backed by purchase order line item history substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Several alternatives were evaluated; the EFB had previously proven itself at the Foster Plywood site to achieve high collection efficiencies by virtue of its large collection area and short migration distances. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings however operating costs will increase. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility:

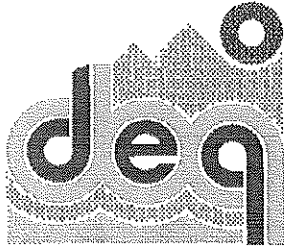
ACDP 22-3010, issued 10/26/93; Addendum 1 issued 3/28/95; Addendum 2 issued 2/2/96;

Addendum 3 issued 2/5/97; Addendum 4 issued 5/21/97.

NPDES 10-1191

Storm water 1200-Z, issued 10/10/97

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis Cartier, Associate, SJO Consulting Engineers, Inc.
Dave Kauth, AQ-DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4978 |
| Facility Cost | \$1,307,242 |
| Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a plywood manufacturing plant. The applicant's taxpayer identification number is 93-0312940 and their address is:

**Springfield Plywood Division
1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

**A Geoenergy E-Tube Electrostatic
Precipitator (ESP) System, model 1013-
248 2TR.**

The applicant is the owner of the facility located at:

**419 S 28th Street
Springfield, OR 97477**

Technical Information

The facility consists of a Geoenergy E-Tube ESP, model 1013-248 2TR and associated electrical components, structural foundation and footings, and process piping. The facility removes air pollutants from the two veneer dryer exhaust stacks. It is designed for 60,000 acfm and has 248 tubes.

A majority of the veneer dryer exhaust gas recirculates through the blend chamber and mixes with the Wellons fuel cell gas. The dryer exhaust stacks are routed through the electrostatic precipitator for collection of the fine particulate then discharged into the atmosphere, thereby controlling blue haze emissions associated with the wood drying process. Average opacity is 10%.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new installation and equipment** is to prevent, control or reduce a substantial quantity of air pollution. The requirement is imposed by the Lane Regional Air Pollution Authority in the Stipulated Final Order (SFO #1142). Since Springfield is a non-attainment area for PM₁₀, the Lowest Achievable Emission Rate (**LAER**) criteria must be met.
- ORS 468.155 (1)(b)(B) The disposal or elimination of or redesign to eliminate air contamination sources and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>4/2/98</u> |
| <i>Additional Information Requested</i> | <u>6/3/98</u> |
| <i>Additional Information Received</i> | <u>9/22/98</u> |
| <i>Application Substantially Complete</i> | <u>12/18/98</u> |
| <i>Construction Started</i> | <u>10/28/96</u> |
| <i>Construction Completed</i> | <u>5/15/97</u> |
| <i>Facility Placed into Operation</i> | <u>5/15/97</u> |

Facility Cost

| | |
|--|---------------------------|
| Claimed Facility Cost | \$ 1,423,208 |
| Unsubstantiated Costs | |
| Engineering – BCM Professional Services | (25,632) |
| Electrical Components & Installation | |
| Olsson Electric, Northwest Industrial | |
| Electric, North Coast Industrial Electric, | |
| various others | (38,906) |
| Miscellaneous components & installation – | |
| various vendors | (38,305) |
| Non Allowable & Unsubstantiated Costs | |
| Process piping | |
| Western Pneumatics, EJ Bartells Co. | (\$13,123) |
| Allowable Facility Cost | <u>\$1,307,242</u> |

Copies of invoices and purchase order records substantiate the allowable facility cost. A certified public accountant's statement was not provided because the claimed costs exceed \$500,000. Maggie Vandehey performed an accounting review on behalf of the applicant.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000; therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings however operating costs increased. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility:

- Air discharge 208864, issued 1/1/88
- Storm water 1200-Z, issued 11/14/97
- City sewer W-200-S-110696, issued 12/10/96

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
 Dennis Cartier, Associate, SJO Consulting Engineers, Inc.
 Dave Kauth, AQ-DEQ
 Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4979 |
| Facility Cost | \$615,050 |
| Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: Air

Final Certification

ORS 468.150 – 468.190

OAR 340-016-0005 – 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a **particleboard manufacturer**. Their taxpayer identification number is 93-0312940. The applicant's address is:

**KorPine Division
1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

A Wellons Electrostatic Precipitator (ESP)

The applicant is the owner of the facility located at:

**55 SW Division
Bend, OR 97702**

Technical Information

The claimed facility consists of:

Phase I: The applicant claimed the components listed below from their September of 1995 installation. This installation failed to meet the emission requirements in all operating conditions of applicant's air permit. The maximum emission limit allowed in the air permit for boiler #1 was 0.20 gr/dscf and for boiler #2 was 0.10 gr/dscf.

- Installation of computerized combustion controls on boilers #1 and #2 to minimize emissions by improving combustion efficiency. Boiler #1 is fired with either sanderdust or natural gas, boiler #2 with sanderdust (with a natural gas pilot light).
- Installation of exhaust ductwork rerouting boiler #1 to finish dryer #4 and boiler #2 to finish dryers # 1 & #2, routing emissions through the dryers to the dryer scrubbers,
- Overhaul of the star feeder on boiler #1 to improve collection efficiency of the multiclone.

Phase II: In September of 1996, the applicant completed installation of the Wellons Model #7 ESP to control particulate emissions from both boilers when fired on sanderdust. The applicant claimed the Modification of the boiler exhaust ductwork and installation of a new Wellon's #7 dry ESP to control emissions from boiler #1 and boiler #2. The applicant states that emission levels are now less than 0.075 gr/dscf under all firing conditions.

The dry type Wellon ESP has a design inlet gas flow rate of 60,000 acf/min and a rated efficiency of 65%. Exhaust from each boiler is routed through a multiclone to the inlet of the Wellons ESP. Hot exhaust from the ESP is used in cold weather to heat one or more of the final dryers and otherwise is discharged into the atmosphere.

ESPs are considered best available control technology for controlling particulate emissions and opacity.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new equipment and installation** is to control and reduce a substantial quantity of air pollution. DEQ imposes the requirement under ACDP #09-0002 issued 10/4/95 and Mutual Agreement Order #AOP-ER-96-017 dated 4/26/96.
- ORS 468.155 (1)(b)(B) The ESPs are an air cleaning device, which **controls** air pollution by **disposing** of the **air contaminants**.

Timeliness of Application

Phase I of the claimed facility **does not** meet the requirement within ORS 468.165 (6) that stipulates that the application must be submitted **within two years** after construction is substantially complete. Phase I was not submitted within the required time. **Phase II** of the claimed facility meets this requirement.

| | | |
|-----------------|---|----------|
| | <i>Application Received</i> | 4/2/98 |
| | <i>Additional Information Requested</i> | 6/3/98 |
| | <i>Additional Information Received</i> | 10/13/98 |
| | <i>Application Substantially Complete</i> | 7/29/99 |
| Phase I | <i>Construction Started</i> | 5/1/95 |
| | <i>Construction Completed</i> | 9/1/95 |
| | <i>Placed into Operation</i> | 9/1/95 |
| Phase II | <i>Construction Started</i> | 2/12/96 |
| | <i>Construction Completed</i> | 9/15/96 |
| | <i>Placed into Operation</i> | 9/16/96 |

Facility Cost

| Claimed Cost | Non-Allowable Cost | Allowable Cost |
|--------------|--------------------|----------------|
|--------------|--------------------|----------------|

Phase I**Computer Combustion controls**

This item is ineligible because it was installed to optimize combustion efficiency and reduce fuel consumption.

Air piping and installation

Western Pneumatics (6/5/95) Fabrication and Installation of the Boiler Exhaust – no reduction in pollution resulted.

Western Pneumatics (9/25/95) Fabrication and Installation of a 36" damper – no reduction in pollution resulted.

Western Pneumatics (7/28/95) Fabrication of Pipe Fittings

E.J. Bartells Co (7/19/95) Insulate hot flue gas duct and steam & condensate piping- no reduction in pollution resulted.

| | | |
|------------|-----------|------|
| \$ 36,643 | | |
| | \$ 36,643 | \$ 0 |
| \$ 128,444 | | |
| | \$ 62,998 | |
| | 3,785 | |
| | 3,061 | |
| | 58,600 | \$ 0 |

Phase II**Excavation/concrete**

Doug Thompson, General Contractor (6/19/96)

Extra concrete for slab edge and labor

Unsubstantiated amount:

Engineering/environmental testing

Unsubstantiated amount:

ESP equipment and installation

Wellons (2/23/96) Equipment & Services for installation of ESP

Ancillary equipment and installation

Ancillary equipment included installing the exhaust ductwork from the boiler to the ESP and hooking up the ESP to the boiler.

Pacific Power (9/27/96) Relocation of overhead power lines is ineligible because it provides no pollution control.

Unsubstantiated amount:

Air piping and installation

Air systems included exhausting the two boilers to the ESP and exhausting the ESP to the dryers. Western Pneumatics

6/24/96 Invoice. Fab & Install Conveyor Negative Air Piping, Expansion Joints, and ESP Piping

Unsubstantiated amount:

Electric supply equipment and installation

ESCO Electric Supplies (6/25/96).

Eoff Electric Co (9/6/96) Gardner Bender B2000 Cyccone Bender

Unsubstantiated amount:

Miscellaneous Supplies - Various

Unsubstantiated amount:

| | | |
|-----------|--------|---------|
| \$ 15,265 | | |
| | 8,429 | 6,836 |
| 17,026 | | |
| | 17,026 | 0 |
| 595,000 | 0 | 595,000 |
| 52,156 | | |
| | 20,291 | |
| | 31,865 | 0 |
| 89,118 | | |
| | 62,569 | |
| | 26,549 | 0 |
| 44,910 | | |
| | 5,152 | 13,213 |
| | 26,544 | |
| 3,641 | | |
| | 3,641 | 0 |

| | | | |
|---------------|-------------------|-------------------|-------------------|
| Totals | \$ 982,203 | \$ 367,153 | \$ 615,050 |
|---------------|-------------------|-------------------|-------------------|

A certified public accountant's statement was not provided because the claimed costs exceed \$500,000. Maggie Vandehey performed the accounting review on behalf of the Department.

Facility Cost Allocable to Pollution Control

Since the facility cost exceeds \$50,000, according to ORS.190 (1) the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Previous short-term strategies were attempted but failed. Other ESPs were evaluated, but the Wellons was selected for its capacity to control both boilers and maintain lower emission levels on a long-term basis. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. The following DEQ permits have been issued to the Korpine Division plant:

ACDP 09-0002, issued 10/4/95

Storm water 1200-Z, issued 11/17/97

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ



Tax Credit Review Report

EOC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4986 |
| Facility Cost | \$355,138 |
| Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: Air

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a paper mill. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue
Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

**Four Western Pneumatic baghouses:
three model WP630 and one model
WP460.**

The applicant is the owner of the facility of the facility located at:

**2812 Old Salem Road
Albany, OR 97321**

Technical Information

Exhaust air from one hog fuel system and various saws and moulders associated with the Laminated Veneer Lumber (LVL) operation are routed to a cyclone which recovers wood waste. The wood waste from this cyclone is ducted in a high-pressure system to a second smaller cyclone at the inlet to the chip bins. The exhaust is ducted to the Model WP460 baghouse with an air to cloth ratio of 5.4 to 1 which controls the wood dust emissions.

Exhaust air from various machines in the Custom Products production line is routed to the three Model WP630 cyclones which recover wood waste. The exhaust from these cyclones is ducted to three Model WP630 baghouses which have an air to cloth ratio of 5.9 to 1 and which control the wood dust emissions. The cyclones are 85% effective in removing wood waste from the airstreams.

The LVL external air system components include one Western Pneumatic model WP460 baghouse and three Western Pneumatic model WP630 baghouses. The baghouses have an estimated efficiency of 97% and emissions are expected to total less than 0.2 tons per year.

The wood waste is trucked to other Willamette Industry sites for use in other processes and has an estimated annual value of \$84,000. The particulate captured in the baghouses is disposed of offsite.

Eligibility

Baghouses

- ORS 468.155 The **principal purpose** of this **new equipment and installation** is to prevent,
 (1)(a) control or reduce a substantial quantity of air pollution.
- ORS 468.155 The disposal or elimination of or redesign to eliminate air contamination sources
 (1)(b)(B) and the use of air cleaning devices as defined in ORS 468A.005

Cyclones

- ORS 468.155 The **principal purpose** of this **new equipment and installation** is **not** to
 (1)(a) prevent, control or reduce a substantial quantity of air pollution because it is not
 required by the DEQ or the federal Environmental Protection Agency.
- ORS 468.155 The **sole purpose** of this **new equipment and installation** is not to prevent,
 (1)(b)(B) control or reduce a substantial quantity of air pollution. It's other purpose is to
 recover process materials and prevent damage to the baghouse.

Timeliness of Application

The application was submitted within
 the timing requirements of ORS
 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>4/3/98</u> |
| <i>Additional Information Requested</i> | <u>5/19/98</u> |
| <i>Additional Information Received</i> | <u>9/22/98</u> |
| <i>Site Visit</i> | <u>10/9/98</u> |
| <i>Application Substantially Complete</i> | <u>10/21/99</u> |
| <i>Construction Started</i> | <u>9/1/95</u> |
| <i>Construction Completed</i> | <u>12/1/96</u> |
| <i>Facility Placed into Operation</i> | <u>12/1/96</u> |

Facility Cost

| | Non- Allowable | |
|---|---------------------------|---------------------|
| Claimed Facility Cost | | \$ 961,680 |
| Western Pneumatics cyclones and ducting, and: | \$ 305,477 | |
| Overtime for Accelerated Schedule | 9,360 | |
| Slipsets to 7" pipes | 1,447 | |
| Piping to Test Lab | 2,496 | |
| Collapsed Pipe Repair | 10,656 | |
| Rework Roof Supports | 6,320 | |
| Hook Up Splitter Saw | 5,473 | |
| Sander Hoods and Piping | 3,992 | |
| Shut-Off Valves | 179 | |
| Fire Detection System (control console, printer, input/output cards, control interface, sensors) | 69,050 | |
| Motors - McGuire Bearings | 30,288 | |
| Unsubstantiated Costs: | | |
| Exhibit C: "Electrical components & installation - various" | 161,803 | |
| Total Non-allowable | | - \$ 606,541 |
| Allowable Facility Cost | | \$ 355,138 |

Copies of purchase orders and invoices substantiated 100% of the eligible facility cost. Spark detection was not eliminated as an ineligible cost. The cost of the baghouses was provided by Western Pneumatics. The claimed facility included the costs associated with the cyclones and ducting. This equipment is ineligible because they do not perform any pollution control function. They provide the ability to convey and recover product prior to exhausting to the baghouses. The fire detection system claimed is an ineligible cost because the items included do not provide any pollution control function. The cost of the motors could not be substantiated because the motor horsepower ratings identified on the invoice did not agree with the required horsepower ratings provided by the baghouse vendor.

A certified public accountant's statement was not provided because the claimed costs exceed \$500,000; therefore, Maggie Vandehey performed the accounting review on behalf of the DEQ.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | The cyclones recover a useable commodity valued at \$84,000 per year. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. Gross annual revenues associated with this facility are \$51,101. |
| ORS 468.190(1)(c) Alternative Methods | No other alternatives were investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

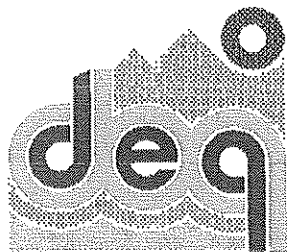
Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility:

- ACDP # 22-0002 issued 10/95;
- Storm Water Erosion Control 1200-C;
- Storm Water Discharge #1200-Z.

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
 Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
 Dave Kauth, AQ-DEQ
 Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries, Inc.**
Application No. **4987**
Facility Cost **\$45,872**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Air

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a paper mill. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

A fly ash collection containment system.

The applicant is the owner of the facility. The facility is located at:

**611 E Highway 20
Sweet Home, OR 97386**

Technical Information

The facility is a fly ash collection containment system. A 10' x 40' rigid frame building with a sheet metal cover, sits on a concrete foundation and houses an 8' x 4' x 16' ash bin. The building is open on one end. The facility provides a cover over the ash bin including the point of transfer from the ash conveyor to the ash bin. The ash bin moves on rails and is controlled by an electric car loading wench. The function of the facility is to minimize particulate emissions to the atmosphere as the fly ash is transferred from the conveyor system to the bin. The bin is taken to the landfill for disposal of the fly ash. This method of treating the fly ash prevents fugitive emissions off of the conveyor system from entering the atmosphere.

Eligibility

ORS 468.155 The **sole purpose** of this **new Building** is to prevent, control or reduce a
(1)(a) substantial quantity of air pollution.

ORS 468.155 The disposal or elimination of or redesign to eliminate air contamination sources
(1)(b)(B) and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>4/3/98</u> |
| <i>Additional Information Requested</i> | <u>5/20/98</u> |
| <i>Additional Information Received</i> | <u>10/5/98</u> |
| <i>Application Substantially Complete</i> | <u>11/9/98</u> |
| <i>Construction Started</i> | <u>6/1/97</u> |
| <i>Construction Completed</i> | <u>8/1/97</u> |
| <i>Facility Placed into Operation</i> | <u>8/1/97</u> |

Facility Cost

| | |
|-------------------------|------------------|
| Claimed Facility Cost | \$ 45,872 |
| Non-allowable Costs | \$ - 0 |
| Allowable Facility Cost | <u>\$ 45,872</u> |

Copies of invoices were provided which substantiated the cost of the facility. **KPMG Peat Marwick L.L.P.** provided the certified public accountant's statement.

Facility Cost Allocable to Pollution Control

According to ORS.190 (3), the facility cost does not exceed \$50,000; therefore, the only factor used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. This is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility:

ACDP 22-3010, issued 10/26/93; Addendum 1 issued 3/28/95; Addendum 2 issued 2/2/96;
 Addendum 3 issued 2/5/97; Addendum 4 issued 5/21/97.
 NPDES 10-1191
 Storm water 1200-Z, issued 10/10/97

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
 Dave Kauth, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Bushwhackers/Bushwhacker Saloon Corp.**
Application No. **4996**
Facility Cost **\$18,000**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Water

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a restaurant. The applicant's taxpayer identification number is 93-1187283 and their address is:

**8200 SW Tonka
Tualatin, OR 97062**

Facility Identification

The certificate will identify the facility as:

Stormwater Compost in Vault system

The applicant is the owner of the facility located at:

**8200 SW Tonka
Tualatin, OR 97062**

Technical Information

This system consists of a horizontal vault system filled with compost media. It is installed downstream of the storm water runoff and filters the water before it enters Nyberg Creek. The filter media requires annual maintenance and replacement approximately every two years. The system is considered an acceptable method for filtering wastewater runoff.

Eligibility

- ORS 468.155 The **principal purpose** of this **new structure and device installation** is to
(1)(a) prevent, control or reduce a substantial quantity of water pollution.
The requirement is imposed by the city of Tualatin.
- ORS 468.155 The disposal or elimination of water pollution and the use of treatment works for
(1)(b)(A) industrial waste as defined in ORS 468B.005.
- OAR-016-0025 Installation or construction of facilities which will be used to prevent spills or
(2)(g) unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>4/21/98</u> |
| <i>Additional Information Requested</i> | <u>8/20/98</u> |
| <i>Additional Information Received</i> | <u>2/11/99</u> |
| <i>Application Substantially Complete</i> | <u>2/15/99</u> |
| <i>Construction Started</i> | <u>6/1/96</u> |
| <i>Construction Completed</i> | <u>8/1/96</u> |
| <i>Facility Placed into Operation</i> | <u>8/1/96</u> |

Facility Cost

| | |
|-------------------------|---------------------|
| Claimed Facility Cost | <u>\$ 18,000.00</u> |
| Allowable Facility Cost | <u>\$ 18,000.00</u> |

An invoice and a letter from the subcontractor substantiated the cost of the facility. The facility cost does not exceed \$20,000, therefore an external accounting review was not required.

Facility Cost Allocable to Pollution Control

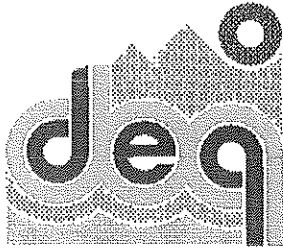
According to ORS.190 (3), the facility cost does not exceed \$50,000 and therefore, the only factor used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of time this facility is used for pollution control; therefore, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility: None

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Widmer Brothers Brewing Company**
Application No. **5004**
Facility Cost **\$405,245**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility Tax Credit: Water Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a brewery. The applicant's taxpayer identification number is 93-0866469 and their address is:

**929 N. Russell
Portland, OR 97227**

Facility Identification

The certificate will identify the facility as:

A Waste Neutralization System

The applicant is the owner of the facility located at:

**924 N. Russell
Portland, OR 97227**

Technical Information

The claimed facility consists of waste collection piping, a sump and controls, and a neutralization system.

The waste collection piping is connected to the packaging floor drains, fermentation trench drains, brew house trench drains, and a single line for the combined wastewater streams from the brewing operations across the street at 929 N. Russell. The piping conveys the waste streams to a sump in the basement of the brew house. This portion of the claimed facility is not eligible as noted in the *Facility Cost* section of this report.

The 7,000 gallon sump holds the waste for treatment and is constructed of fiberglass, fitted with a duplex pumping system, a level control and alarming for transfer to the neutralization area.

The waste neutralization system consists of two 2,000 gallon stainless steel balancing tanks with agitation, pH and flow metering, control processor, additive pumps, and a duplex discharge pumping system. These components are housed in a containment room with piped-in CO2 and a bulk caustic tank for neutralization. The pH is maintained between 5.5 and 11.5. The system neutralized approximately 17,600,000 gallons of wastewater in 1997.

Eligibility

Waste Collection Piping System

ORS 468.155 (1)(a)(A) The **principal purpose** of this **new equipment**, as claimed by the applicant is **not** to prevent, control or reduce a substantial quantity of water pollution because it is not required by the DEQ or the Federal Environmental Protection Agency. The **sole purpose** of the piping is **not** to prevent, control, or reduce a substantial quantity of water pollution. The pipe system performs a material handling function only since it only conveys process waste to the holding sump.

Sump and Waste Neutralization System

ORS 468.155 (1)(a)(A) The **principal purpose** of this **new equipment** is to prevent, control or reduce a substantial quantity of water pollution.
 ORS 468.155 (1)(b)(A) The disposal or elimination of or redesign to eliminate the use of treatment works for industrial waste as defined in ORS 468B.005 and is installed to comply with EPA, DEQ, and the City of Portland Code for effluent discharges into the Publicly Owned Treatment Works (POTW).

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | 04/29/1998 |
| <i>Additional Information Requested</i> | 11/04/1998 |
| <i>Additional Information Received</i> | 04/27/1999 |
| <i>Application Substantially Complete</i> | 06/21/1999 |
| <i>Construction Started</i> | 04/01/1995 |
| <i>Construction Completed</i> | 04/30/1996 |
| <i>Facility Placed into Operation</i> | 04/30/1996 |

Facility Cost

| | |
|--------------------------------|-------------------|
| Facility Cost | \$ 610,252 |
| Non-allowable Costs | |
| Trench Drains and Floor Drains | \$ - 117,463 |
| Unsubstantiated Cost | - 87,544 |
| Allowable Facility Cost | 405,245 |

Coopers and Lybrand L.L.P. performed an accounting review on behalf of Widmer Brewery. Copies of invoices and canceled checks substantiated the cost of the total project (\$10,992,810). A letter from the general contractor, provided with the original application, stated that the cost of the claimed facility was \$610,252. During the review process, the applicant provided an itemized cost breakdown. Maggie Vandehey performed the accounting review on behalf of the Department.

Facility Cost Allocable to Pollution Control

Since the facility cost exceeds \$50,000, according to ORS.190 (1) the following factors were used to determine the percentage of the facility cost allocable to pollution control.

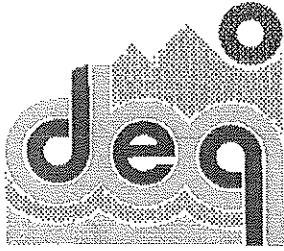
| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | An anaerobic/aerobic wastewater treatment system was considered but the cost was too high. |
| ORS 468.190(1)(d) Savings or Increase in Costs | Operating costs increase since there was no previous system. They are estimated to be \$9073 per year. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued at this facility. City of Portland Permit number: 400-080; Expiration Date: 02/01/2001.

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
Dennis Cartier, Associate, SJO Consulting Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EOC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 5020 |
| Facility Cost | \$153,516 |
| Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: Noise Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a paper mill. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue
Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

Storm water control system.

The applicant is the owner of the facility located at:

**50 North Danebo Avenue
Eugene, OR 97402**

Technical Information

A storm water control system, including sloped concrete paving, a settling basin, ditch covers, and a sawdust storage slab was constructed to prevent ground water contamination by reducing debris (primarily wood fiber) in storm water runoff. Resin containment facilities (concrete barriers) were also designed and installed to prevent leaks and spills from contaminating storm water runoff to the city storm water system or to neighboring wetlands.

Storm water diversion and debris removal has minimized the volume and contamination levels of storm water discharges from the sawmill. Water quality standards are continuing to be monitored and all standards have been met or exceeded.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new device** is to prevent, control or reduce a substantial quantity of water pollution.
- ORS 468.155 (1)(b)(A) The control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005
- OAR-016-0025(2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>2/13/98</u> |
| <i>Additional Information Requested</i> | <u>3/20/98</u> |
| <i>Additional Information Received</i> | <u>9/15/98</u> |
| <i>Application Substantially Complete</i> | <u>10/2/98</u> |
| <i>Construction Started</i> | <u>9/1/94</u> |
| <i>Construction Completed</i> | <u>2/19/96</u> |
| <i>Facility Placed into Operation</i> | <u>2/19/96</u> |

Facility Cost

| | |
|--|---------------------|
| Claimed Facility Cost | \$ 537,985 |
| Unsubstantiated costs - GML Construction: | |
| Stormwater containment and Retention basin | - \$ 297,214 |
| Resin Tank Containment | - 8,100 |
| Unsubstantiated costs - Engineering: | - 79,155 |
| Subtotal | <u>- \$ 384,470</u> |
| Allowable Facility Cost | \$ 153,516 |

KPMG Peat Marwick L.L.P. performed an accounting review on behalf of Willamette Industries. The claimed facility cost exceeds \$500,000 therefore, Maggie Vandehey performed an accounting review on behalf of the department.

Copies of invoices substantiated 100% of the allowable facility cost. The applicant did not provide copies of invoices for the unsubstantiated cost items as requested on 3/20/98. The applicant provided a copy of a GML Construction purchase orders for a total amount of \$950,389. The description of the work included "monthly management services, labor, supplies, equipment rental, particleboard plant expansion, exterior concrete work, and I&M work". These items could not be clearly matched to the claimed facility. The applicant provided a calculation showing how the Engineering costs were determined, but there was no basis or substantiation for the numbers used in the calculation.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility costs exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues are associated with this facility, therefore there is zero return on the investment. |
| ORS 468.190(1)(c) Alternative Methods | The applicant identified no alternatives. |
| ORS 468.190(1)(d) Savings or Increase in Costs | There are no savings from the facility. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

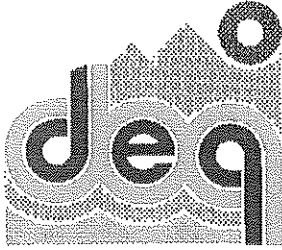
Compliance and Other Tax Credits

The applicant claims the facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to the Eugene MDF Division site:

- ACDP 200529, issued 12/95
- Storm water 1200-W, issued 10/1/92
- Waste water 1700-J, issued 2/1/95

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Mitsubishi Silicon America**
Application No. **5045**
Facility Cost **\$655,955**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is operating as a supplier of electronic grade silicon wafers. This corporation's taxpayer identification number is 93-1687933 and their address is:

**1351 Tandem Ave. NE
Salem, OR 97303**

Facility Identification

The certificate will identify the facility as:

Installation of NO_x scrubber

The applicant is the owner of the facility located at:

**1351 Tandem Ave. NE
Salem, OR 97303**

Technical Information

Nitric acid is used in the wafer etching process. NO_x and nitric acid fumes are generated during this process. A wet scrubber manufactured by Harrington Industrial Plastics was installed to treat these emissions. The scrubber is a three-stage system. The model numbers of the three stages are ECH66-8LB, ECH66-9LB, and ECH55-5LB. The system also includes a fan. The scrubber has a destruction efficiency of 93%. It replaced an existing acid fume scrubber that had an efficiency of 28%.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation of equipment** is to prevent, control or
(1)(a)(A) reduce a substantial quantity of air pollution as required by the applicant's Air
Contaminant Discharge Permit No: 24-0001.
- ORS 468.155 Elimination of air pollution is accomplished with the use of air cleaning devices as
(1)(b)(B) defined in ORS 468A.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>07/31/1998</u> |
| <i>Application Substantially Complete</i> | <u>10/07/1999</u> |
| <i>Construction Started</i> | <u>11/28/1995</u> |
| <i>Construction Completed</i> | <u>12/26/1995</u> |
| <i>Facility Placed into Operation</i> | <u>07/31/1996</u> |

Facility Cost

| | |
|-------------------------|------------------|
| Claimed Facility Cost | \$655,955 |
| Non-allowable Costs | \$ - |
| Allowable Facility Cost | <u>\$655,955</u> |

Symonds, Evans and Larson, LLC performed an accounting review on behalf of the applicant. The facility cost exceeds \$500,000; therefore, Maggie Vandehey performed an accounting review on behalf of the Department. Invoices and a cost summary provided the substantiation of the facility cost claimed by the applicant.

Facility Cost Allocable to Pollution Control

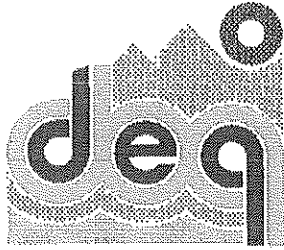
According to ORS.190 (1), the facility cost exceeds \$50,000; therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

Reviewers: Dennis Cartier, SJO Consulting Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Intel Corporation**
Application No. **5137**
Facility Cost **\$192,077**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Hazardous Waste

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating in the research, design, and production of semiconductor wafers. The applicant's taxpayer identification number is 94-1672743 and their address is:

**2200 Mission College Drive, SC4-26
Santa Clara, CA 95052**

Facility Identification

The certificate will identify the facility as:

A Hazardous Waste Holding System

The applicant is the owner of the facility located at:

**2501 NW 229th Avenue
Hillsboro, OR 97124**

Technical Information

The claimed facility consists of tanks, pumps, and the design and engineering services associated with the following two hazardous waste systems.

Solvent Waste System

Hazardous organic wastes (such as IPA, acetone, and other organic solvents from the lithography and cleaning processes) are held in a day tank, then transferred to two bulk solvent tanks, then trucked off-site by a permitted transporter to a disposal facility. Specific system components include:

1. A solvent waste transfer tank, which holds 400 gallons and is 5' x 5'. This carbon steel tank is located indoors and holds solvent waste for transfer to the collection tanks. TK-269-1-110
2. Two carbon-steel solvent-waste collection tanks. The tanks measure 8' in diameter by 10' high and they hold 4,000 gallons. The tanks hold the solvent waste for later release to the transporter truck. TK-269-1-120A&B
3. Two solvent-waste transfer pumps sized for 50 gpm at 50 feet TDH. These indoor Phoenix pumps transfer waste from the day tank to the collection tanks. PMP-269-1-110A&B

4. A solvent waste sump tank, which holds approximately 80 gallons, is 36" x 18" x 30". It is located in the indoor solvent room and used to receive solvent waste from containers. This waste is then pumped from the sump to the solvent waste transfer tank. TK-269-1-100
5. Three solvent waste sump pumps each sized to deliver 25 gpm at 10 feet TDH used to:
 - a. transfer solvent from the solvent sump tank to the solvent waste transfer tank. *PMP-269-1-100*;
 - b. transfer from the solvent waste collection tank containment area sump to the bulk solvent tank. *PMP-269-1-130*
 - c. remove water from the outdoor solvent waste collection tank containment area to the transporter truck. *PMP-271-1-100*

Lead Waste System

Concentrated organic lead waste and dilute lead waste from the lead bearing factory process is managed in two different ways. The concentrated organic lead waste is transferred to two storage-tanks then trucked offsite by a permitted transporter to a disposal facility. The dilute lead waste is held in an accumulation tank then pumped to a leased treatment system that is not included in this application. Specific system components include:

1. Lead waste transfer tank, which holds 1,000 gallons and is 6' x 5'. This tank serves to accumulate the dilute lead waste prior to transfer to the leased treatment system. *TK-273-1-150*
2. Two lead waste pumps, , sized for 7-1/2 horsepower each. These Queen pumps transfer the dilute lead waste from TK-273-1-150 to the treatment system. *PMP-273-1-150A&B*
3. Two concentrated lead waste storage tanks, which hold 4,000 gallons each, are 8' in diameter, 10' high, and made of stainless steel. The concentrated organic lead waste is transferred to the transport trucks. *TK-273-1-120A&B*
4. Lead waste containment sump pump, Wilden model M4 air-operated, double diaphragm pump sized for 25 gpm at 45 feet TDH, which drains the containment area sump for the concentrated lead waste storage tanks and loads it into the transport truck. *PMP-273-1-130*
5. Lead waste truck loading pump, a Queen centrifugal pump sized for 75 gpm at 45 feet TDH with a 5HP, 3500 rpm, 460V, 3 phase motor, and which is used for loading the concentrated lead waste collected in tanks TK-273-1-120A&B into the transport truck. *PMP-273-1-120*

Eligibility

- ORS 468.155 The **principal purpose** of the new equipment installation is to **control** a (1)(a)(A) substantial quantity of **hazardous waste** pollution. This requirement is imposed by OAR 340-102 and 40 CFR 262.
- ORS 468.155 The facility **substantially eliminates** hazardous waste as defined in ORS (1)(b)(E) 466.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>12/23/98</u> |
| <i>Additional Information Requested</i> | <u>2/26/99</u> |
| <i>Additional Information Received</i> | <u>8/9/99</u> |
| <i>Additional Information Received</i> | <u>9/15/99</u> |
| <i>Application Substantially Complete</i> | <u>9/30/99</u> |
| <i>Construction Started</i> | <u>12/94</u> |
| <i>Construction Completed</i> | <u>4/97</u> |
| <i>Facility Placed into Operation</i> | <u>4/97</u> |

Facility Cost

| | |
|-----------------------------|------------------|
| Claimed Facility Cost | <u>\$191,139</u> |
| Applicant calculation error | \$ 938 |
| Allowable Facility Cost | <u>\$192,077</u> |

Copies of invoices substantiated 100% of the cost of the facility. Indirect costs account for \$36,044. The indirect costs are acceptable and substantiated by the *Intel D1B Indirects Redbook Report*. Kessler & Company, PC provided the certified public accountant's statement on behalf of the applicant.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

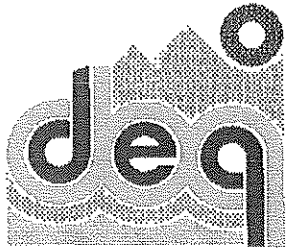
| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: Air Contaminant Discharge Permit #34-2809, issued 11/18/1994.

Reviewers: Lois L. Payne, P.E., SJO Engineers
Dennis Cartier, Associate, SJO Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|--------------------------|
| Applicant | Intel Corporation |
| Application No. | 5138 |
| Facility Cost | \$1,683,111 |
| Percentage Allocable | 100% |
| Useful Life | 10 years |

Pollution Control Facility: Water

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation providing research, design, and production of semiconductor wafers. The applicant's taxpayer identification number is 94-1672743. The applicant's address is:

**2200 Mission College Drive, SC4-26
Santa Clara, CA 95052**

Facility Identification

The certificate will identify the facility as:

**An Acid Waste Neutralization (AWN) system
and a Waste Phosphoric Acid system.**

The applicant is the owner of the facility located at:

**Intel Ronler Acres D1B
2501 NW 229th Avenue
Hillsboro, OR 97124**

Technical Information

The claimed facility consists of an AWN system, a waste phosphoric acid collection system, and a secondary containment structure for the two systems. The AWN consists of four treatment and storage tanks, associated pumps and piping, and chemical treatment tanks. The waste phosphoric acid system consists of a collection tank and a transfer pump.

The specific components of the AWN system are:

- Three 14' x 14' FRP acid waste treatment tanks (TK-261-1-110, TK-261-1-120, and TK-261-1-130);
- Three AWN mixers (MX-261-1-110, MX-261-1-120, and MX-261-1-130) used for mixing caustic in the tanks to adjust the pH;
- One sodium hydroxide (NaOH) (caustic) tank (TK-252-1-100) used to neutralize the corrosive wastewater;
- One 38' x 14' FRP industrial waste water (IWW) tank (TK-261-1-150) used to store wastewater that does not meet specifications for discharge after treatment in the three primary tanks. This waste can be re-treated prior to discharge;
- One IWW pump (PMP-261-1-140A) used to route wastewater from the IWW tank to an AWN tank for re-treatment;
- Piping, labor, freight, materials, and indirect costs associated with the AWN system installation.

The specific components of the waste phosphoric acid system are:

- g) One 13' x 10' collection tank (TK-262-1-130) for phosphoric acid recycle and reclaim;
- h) One waste phosphoric acid pump (PMP-272-1-130) for transfer to a truck for off-site treatment;

Also included in the facility are:

- i) Secondary containment for both treatment systems;
- j) AWN containment area sump pump (PMP-261-100);

Factory etch, clean, and rinse processes create corrosive wastewater, which is directed to the three AWN treatment tanks in series. Sodium hydroxide is added to each of these tanks to adjust the pH between 6 and 11 as specified by the Washington County United Sewerage Agency (USA). From tank #3, it is either routed to the sewer or to the industrial wastewater tank for a second pass through the AWN system, as required. The AWN system was installed to provide sufficient treatment capacity to consistently neutralize facility wastewater.

Waste phosphoric acid generated in factory processes is directed to the (H₃PO₄) reclaim tank. The facility also maintains a collection system for phosphoric acid to minimize phosphorous in the Tualatin River, also specified by the USA permit.

Eligibility

- ORS 468.155 The **principal purpose** of this **new equipment** is to reduce a substantial quantity of water (1) pollution because it is in accordance with USA permit pH requirements.
- ORS 468.155 The AWN facility eliminates industrial waste and the use of treatment works for industrial (1)(b)(A) waste as defined in ORS 468B.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 12/23/98 |
| <i>Additional Information Requested</i> | 3/10/99 |
| <i>Additional Information Requested</i> | 7/22/99 |
| <i>Application Substantially Complete</i> | 10/7/99 |
| <i>Construction Started</i> | 12/94 |
| <i>Construction Completed</i> | 4/97 |
| <i>Facility Placed into Operation</i> | 4/97 |

Facility Cost

| | |
|---|---------------------|
| Claimed Facility Cost | \$ 2,094,832 |
| Non-allowable Costs | |
| Sulfuric acid reclaim system removed by applicant | (\$411,721) |
| Allowable Facility Cost | \$ 1,683,111 |

The applicant removed the sulfuric acid reclaim system from the application during the review process because the system was removed from service. The following components were identified as part of the sulfuric acid reclaim system:

- a) Two sulfuric acid tanks (TK-253-1-100 and TK-253-1-200);
- b) Three sulfuric acid pumps (PMP-253-1-100 and PMP-253-1-200 A&B);
- c) Piping, labor, freight, materials, and indirect costs associated with the sulfuric acid reclaim system installation.

Copies of invoices substantiated the cost of the approved facility. **Kessler & Company, PC** provided the certified public accountant's statement on behalf of the applicant. The cost is greater than \$500,000; therefore, Maggie Vandehey performed an independent accounting review on behalf of the department.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | Phosphoric acid is recovered in the system and sold at a minimal cost (average \$5/ton) to a fertilizer manufacturer. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues are associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Neutralization through addition of either caustic or acidic reagents is commonly used and was chosen due to its reliability and effectiveness. Equipment selection was based on cost, reliability, and performance. No other technologies were considered. |
| ORS 468.190(1)(d) Savings or Increase in Costs | The cost of caustic, sulfuric acid, and operations result in an increased cost to the applicant. Construction of the plant without the USA permit would result in significant administrative, civil, and criminal penalties. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: Air Contaminant Discharge Permit #34-2809, issued 11/18/94

Reviewers: Lois Payne, P.E., SJO Engineers
Dennis Cartier, Associate, SJO Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Intel Corporation**
Application No. **5139**
Facility Cost **\$1,858,452**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a microcomputer chip manufacturing company. The applicant's taxpayer identification number is 94-1672743 and their address is:

**2200 Mission College Drive, SC4-26
Santa Clara, CA 95052**

Facility Identification

The certificate will identify the facility as:

Three Corrosive Exhaust Scrubbers (SC-133-2-100, SC-133-3-100, and SC-133-7-100); and One VOC Abatement unit (Adsorber CA-1-138-120 and Desorber HT-138-180)

The applicant is the owner of the facility located at:

**Intel Ronler Acres D1B
2501 NW 229th Avenue
Hillsboro, OR 97124**

Technical Information

The claimed facility includes three corrosive exhaust scrubbers, one gas pad scrubber, one VOC abatement unit, and the structural steel supports for the scrubber exhaust stacks and to support the VOC abatement unit on the lower roof of the building.

The three Harrington ECV 12 10-5 LB units (SC-133-2-100, SC-133-3-100, SC-133-7-100) scrub 165,000 cfm of corrosive exhaust fumes (55,000 cfm each) bearing numerous types of vapors including hydrochloric acid and hydrofluoric acid. Scrubber efficiencies vary depending on the vapor. Some examples include 91% for removal of chlorine, 96% removal of hydrochloric acid, and 99% removal of hydrofluoric acid. Each of these compounds is considered a Hazardous Air Pollutant (HAP) by the DEQ with an individual limit of 10 tons per year (tpy) and an aggregate limit of 25 tpy for all HAP's. The installation of this facility has resulted in emissions estimated at 0.31 tpy for chlorine, 1.2×10^{-6} tpy hydrochloric acid, and 0.03 tpy hydrofluoric acid. Air from the scrubbers is exhausted to the atmosphere through three 150 HP fans.

The Harrington ECV 8 9-8 LB unit (SC-134-1-100) scrubs 35,000 cfm corrosive exhaust fumes bearing gases which would otherwise be emitted during gas cylinder changes and maintenance. It is also installed to treat an uncontrolled release of a gas stored on the gas pad. The scrubber is sized to handle a release from the largest gas bottle. Some examples of the types of gases that may be present include chlorinated compounds, hydrofluoric acid, phosphine, or diborane. The scrubber efficiency includes, for example, 91% removal of chlorine, 97% removal of hydrochloric acid, and 99% removal of hydrofluoric acid, based on design inlet concentrations of 46, 172, and 353 ppm respectively. Air is exhausted to the atmosphere through two 150 HP fans.

The Kreha VOC adsorber abatement unit includes two 10,000 cfm blowers, an adsorbing unit, an air lift blower, a desorbing unit (condenser), and a chiller. It treats exhaust containing numerous chemicals such as IPA, acetone, xylene, n-methyl pyrrolidone, and ethyl lactate. The unit was designed to remove 90% or more of organic pollutants for substances with more than three carbons in the molecular structure of the chemical. For example, the abatement efficiency of xylene is 95%. VOC compounds are removed from the air stream and condensed to a liquid, then collected with other plant bulk solvents and disposed off site.

Without the claimed facility, uncontrolled corrosive vapors and VOCs would be discharged to the environment.

Eligibility

Eligible

ORS 468.155 The **principal purpose** of the new Corrosive Exhaust Scrubbers and VOC Abatement Unit is to comply with a requirement imposed by the DEQ to reduce a substantial quantity of air pollution. The requirement is imposed by ACDP #34-2809.

ORS 468.155 The reduction is accomplished by the elimination of air contaminants and the use of air cleaning devices as defined in ORS 468A.005.

Ineligible

ORS 468.155 The Gas Pad Corrosive Exhaust Scrubber does not have a principal purpose of pollution control since DEQ or EPA did not impose its installation and it has a purpose other than pollution control. According to ORS 340-016-0060(2)(a), the "principal purpose of the facility is the most important or primary purpose of the facility. Each facility shall have only one principal purpose."

The primary purpose for this scrubber is to comply with the Uniform Fire Code requirements for Gas Cabinets. The Fire Code requires the scrubber treatment system be capable of processing the largest single tank or cylinder of gas stored or used. When more than one gas is emitted to the treatment system, the system must be designed to handle the worst case release based on the release rate, the quantity and the IDLH (immediate danger to life and health) concentration level for all the gases stored. The DEQ does not require the scrubber to be sized for the worst case scenario. Therefore, this is an ineligible part of the claimed facility.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 12/23/98 |
| <i>Additional Information Requested</i> | 3/17/99 |
| <i>Additional Information Received</i> | 8/10/99 |
| <i>Application Substantially Complete</i> | 10/6/99 |
| <i>Construction Started</i> | 12/94 |
| <i>Construction Completed</i> | 4/97 |
| <i>Facility Placed into Operation</i> | 4/97 |

Facility Cost**Claimed Facility Cost****\$ 2,094,687****Non-allowable Costs:**

Costs Associated with Gas Pad Corrosive Exhaust Scrubber:

| | |
|----------------------------------|------------|
| SC-134-1-100 | -\$ 62,245 |
| Set SC-134-1-100 | -\$ 11,441 |
| Recirculation Pump | -\$ 12,748 |
| Exhaust Fans (2) | -\$ 54,540 |
| NaOH Metering Pump | -\$ 7,418 |
| Installation (labor & materials) | -\$ 17,743 |
| Strainer piping | -\$ 1,612 |
| Indirect Costs | -\$ 44,330 |

No contribution to Pollution Control:

| | |
|----------------|------------|
| Source Testing | -\$ 24,158 |
|----------------|------------|

Allowable Facility Cost**\$ 1,858,452**

Kessler & Company, PC provided the certified public accountant's statement. The facility cost exceeds \$500,000; therefore Maggie Vandehey performed an accounting review on behalf of the Department. Copies of the general contractor purchase agreements and vendor/subcontractor work authorizations substantiated the facility cost.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

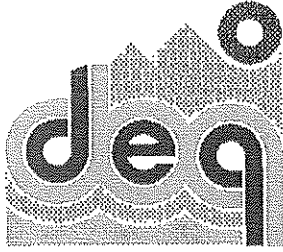
| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | Operating costs increase. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. The DEQ permit issued to the facility is Air Contaminant Discharge Permit #34-2809.

Reviewers: Lois L. Payne, P.E., SJO Engineers
Dennis Cartier, Associate, SJO Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **JR Simplot Company**
Application No. **5156**
Facility Cost **\$757,749**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **C corporation**

Business: **production of finished potato
products**

Taxpayer ID: **82-0196611**

The applicant's address is:

**PO Box 27
Boise, ID 83707**

Facility Identification

The certificate will identify the facility as:

**A wet ESP, Model # BTP10*15, Serial
No. PWI-1696 manufactured by
Beltran Associates, Inc.**

The applicant is the owner of the facility located
at:

**79319 Simplot Rd
Hermiston, OR 97838**

Technical Information

The applicant's Hermiston plant has five fryers operating on four potato process lines. The fryers are hooded and their exhausts are vented through ductwork to fans located on the roof and then combined into a single exhaust stream. Above the roof, the combined fryer exhaust passes through a condensing heat exchanger and is ducted to the Wet ESP. The Wet ESP controls particulate emissions to below 0.02 grains/dry standard cubic foot, reduced opacity to an average of 2.5%, PM₁₀ emission decrease to .076 lb/ton, and VOC emissions decreased to .287 lb/ton.

The eligible facility consists of a wet ESP, manufactured by Beltran Associates, Inc., essential electrical components and above-the-roof ductwork connecting the exhaust stream to the ESP.

Eligibility

Allowable Costs

- ORS 468.155 (1)(a) The **principal purpose** of this **new installation** is to prevent, control or reduce a substantial quantity of air pollution as required by DEQ. The facility is located in an area that is designated attainment for ozone and undesignated for PM₁₀.
- ORS 468.155 (1)(b)(B) The disposal or elimination of or redesign to eliminate air contamination sources and the use of air cleaning devices as defined in ORS 468A.005.

Non-Allowable Costs

The fryer header exhaust ductwork from the fryer to fan inlet, the heat exchanger, the heat exchanger washout pump, and fire protection for Line 1 fryers were removed from the facility cost by the applicant. Additionally, the fryer exhaust fans do not have a principal purpose of pollution control since DEQ or EPA did not impose their installation and their primary purpose is not pollution control but to remove exhaust from the building to assure a safe work environment. According to ORS 340-016-0060(2)(a), the "principal purpose of the facility is the most important or primary purpose of the facility. Each facility shall have only one principal purpose."

The fryer exhaust fans do not dispose of or eliminate air contamination sources with the use of air cleaning devices as defined in ORS 468A.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6). Since the Application Received date is barely within the two-years of the Construction Completed date, staff asked for the date they began depreciating the asset.

| | |
|---|-------------------|
| <i>Application Received</i> | 02/11/1999 |
| <i>Application Substantially Complete</i> | 06/09/1999 |
| <i>Construction Started</i> | 08/01/1996 |
| <i>Construction Completed</i> | 02/28/1997 |
| <i>Put on Books for Depreciation</i> | 04/01/1997 |
| <i>Facility Placed into Operation</i> | 03/01/1997 |

Facility Cost

| | |
|---|-----------------------|
| Facility Cost | \$1,007,320.39 |
| Non-Allowable: | |
| Fryer Header Exhaust Ductwork (ductwork from fryer to fan inlet) | (16,400) |
| Heat Exchanger | (100,099) |
| Heat Exchanger Washout Pump | (4,117) |
| Fire Protection (for Line 1 Fryers) | (29,664) |
| Fryer Exhaust Fans | (99,291) |
| Allowable Facility Cost | \$757,749 |

The facility cost exceeds \$500,000. Maggie Vandehey performed the accounting review on behalf of the Department. Invoices and cancelled checks substantiated 100% of the facility cost claimed by the applicant.

Facility Cost Allocable to Pollution Control

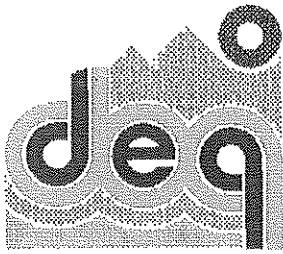
The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control. The percentage of the facility cost allocable to pollution control is **100%**.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | The Wet ESP controls oil mist from the fryer exhausts. The wet effluent is pumped to the plant wastewater treatment system where oil is recovered. The recovered oil is marginally salable at about \$91 per ton. (Sixty tons were recovered in 1997.) |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 12 years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Alternative methods reviewed were Wet Scrubbers and Thermal Oxidation. The Wet ESP was the most cost-effective method and a commonly accepted control technology. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. The applicant's Air Contaminant Discharge Permit number is 30-0078, expiring on 3/1/2001.

Reviewers: Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **T. W. D., Inc.**
Application No. **5157**
Facility Cost **\$165,596**
Percentage Allocable **93%**
Useful Life **10 years**

Pollution Control Facility: USTs Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **S corporation**
Business: **a retail service station**
Taxpayer ID: **93-1095530**

The applicant's address is:

**9815 SW Wilsonville Rd.
Wilsonville, OR 97070**

Facility Identification

The certificate will identify the facility as:

Upgrade to meet EPA requirements.

The applicant is the **owner** of **DEQ Facility ID
No. 11600** located at:

**9815 SW Wilsonville Rd.
Wilsonville, OR 97070**

Technical Information

The facility consists of three doublewall fiberglass tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, line/turbine leak detectors, overfill alarm, sumps, oil/water separator, automatic shutoff valves and Stage II vapor recovery.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>02/12/1999</u> |
| <i>Application Substantially Complete</i> | <u>10/07/1999</u> |
| <i>Construction Started</i> | <u>08/01/1996</u> |
| <i>Construction Completed</i> | <u>02/17/1997</u> |
| <i>Facility Placed into Operation</i> | <u>02/17/1997</u> |

Facility Cost

Corrosion Protection

| | |
|--------------------------------------|--------|
| Fiberglass tanks – doublewall | 32,390 |
| Flexible plastic piping – doublewall | 9,207 |

Spill & Overfill Prevention

| | |
|--------------------------|-------|
| Spill Containment basins | 1,405 |
| Overfill alarm | 305 |
| Sumps | 4,920 |
| Automatic shutoff valves | 3,267 |
| Oil/Water separator | 9,715 |

Leak Detection

| | |
|-----------------------------|-------|
| Automatic tank gauge system | 8,954 |
| Line leak detectors | 1,063 |

VOC Reduction

| | |
|-------------------------|--------|
| Stage II vapor recovery | 15,469 |
|-------------------------|--------|

Labor, material, misc. parts

79,769

Claimed Facility Cost \$166,491

Non-allowable Costs

(895)

Ten percent of the Tank Gauge System is ineligible since the device can serve other purposes, for example, inventory control.

Allowable Facility Cost \$165,596

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|-----------|
| Eligible Facility Cost | \$165,596 |
| Less Claimed Corrosion Protection | 41,597 |

The allocable cost of a corrosion-protected tank and piping system is determined by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

| | | | | | |
|-----------------------|----------|----------------------|----------|---|--------|
| <u>System Cost</u> | | | | | |
| Protected system cost | \$41,597 | less bare steel cost | \$17,179 | = | 29,418 |

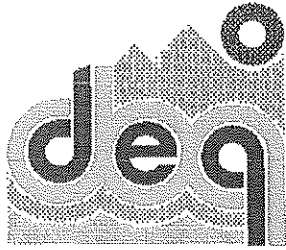
| | |
|---------------------------|------------------|
| Total Reduced Cost | <u>\$153,417</u> |
|---------------------------|------------------|

Total Reduced Cost ÷ Eligible Facility Cost = the percentage of the facility cost allocable to pollution control **93%**

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders, especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewer: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Dynic USA Corporation**
Application No. **5174**
Facility Cost **\$511,501**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility Tax Credit: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a **manufacturer of printer ribbons**. The applicant's taxpayer identification number is 22-2876358 and their address is:

**4750 NE Dawson Creek Drive
Hillsboro, OR 97124**

Facility Identification

The certificate will identify the facility as:

A Regenerative Thermal Oxidizer

The applicant is the **owner** of the facility located at:

**4750 NE Dawson Creek Drive
Hillsboro, OR 97124**

Technical Information

The applicant uses solvents in the manufacture of thermal transfer ribbon. Air pollution emissions from the plant include volatile organic compound (VOC) emissions. Two of the VOCs are hazardous air pollutants (HAP), toluene and methyl ethyl ketone.

The claimed air pollution control facility consists of the following components:

- 1) A regenerative thermal oxidizer (RTO) that destroys 99% of the VOC emissions. The RTO destroys approximately 100 tons of VOC per year, which include HAPs. The RTO was custom made by Smith Environmental Corporation. The unit operates at 1400° F with a chamber retention time of one second. It is located adjacent to the building at grade level. Also included was a 100-hp system fan and 100 feet of exterior ducting.
- 2) Various room exhaust fans were installed in rooms that contain flammable solvents. The fans exhaust directly to the atmosphere.
- 3) Enclosures around two process machines that use large amounts of solvents. The enclosures capture the solvent fumes and direct them to the regenerative thermal oxidizer. During the site visit, the applicant stated only one of the machines used solvents. The enclosure that was installed around the non-solvent machine was installed to provide flexibility for possible future solvent use.
- 4) Eight-inch coated interior concrete walls in the solvent tank storage room.

Eligibility

Eligible Components

ORS 468.155 The **principal purpose** of the **Regenerative Thermal Oxidizer** (Description (1) 1 above) is to prevent, control or reduce a substantial quantity of air pollution as required by the applicant's Air Contaminant Discharge Permit No: 34-0017.

ORS 468.155 Elimination of air pollution is accomplished with the use of air cleaning (1) devices as defined in ORS 468A.005.

Ineligible Components

The following components do not have a principal purpose of pollution control since DEQ or EPA did not impose their installation and they have a purpose other than pollution control. According to ORS 340-016-0060(2)(a), the "principal purpose of the facility is the most important or primary purpose of the facility. Each facility shall have only one principal purpose."

- The Various Room Exhaust Fans (Description 2 above) were installed to meet the ventilation requirements for hazardous materials as part of the Uniform Fire Code for H occupancies.
- The Enclosures (Description 3 above) were installed to meet Oregon OSHA requirements to minimize employee exposure to toxic workplace air contaminants.
- The Coated Walls (Description 4 above) serve to protect the interior concrete walls from corrosion. The concrete walls are part of the room that houses the solvent storage tanks and is not related to air quality.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | 03/04/1999 |
| <i>Additional Information Requested</i> | 06/25/1999 |
| <i>Additional Information Received</i> | 08/18/99 |
| <i>Site Visit</i> | 09/21/99 |
| <i>Application Substantially Complete</i> | 09/27/99 |
| <i>Construction Started</i> | 11/26/1996 |
| <i>Construction Completed</i> | 04/15/1997 |
| <i>Facility Placed into Operation</i> | 04/15/1997 |

Facility Cost**Claimed Cost****\$ 792,797****Allowable Costs**

1) Regenerative Thermal Oxidizer

The applicant listed the cost of the RTO as \$511,500, which included shipping, installation and a 10% markup to Toray Engineering (the company who purchased the RTO). The applicant also included a 25.68% markup for indirect costs that were incurred by P&C Construction, the contractor who constructed the building. Since P&C Construction was not involved in the purchase or installation of the RTO, the indirect cost is not applicable.

\$-131,328

Subtotal**\$ -131,328****Non-Allowable Costs**

2) Various Room Exhaust Fans

Process HVAC

\$ -92,945

Mixing room exhaust fan

\$ -3,685

Material storage exhaust fan

\$ -3,048

Hot oil supply exhaust fan

\$ -2,042

Ink mixing exhaust fan

\$ -5,600

Subtotal**\$ -107,320**

3) Enclosures

Coater equipment enclosure 1

\$ -6,885

Coater equipment enclosure 2

\$ -6,637

Subtotal**\$ -13,522**

4) Coated Interior Concrete Walls

Tank pit excavation

\$ -414

8" interior coated concrete walls

\$ -28,712

Subtotal**\$ -29,126****Allowable Facility Cost****\$ 511,501**

Deloitte & Touche LLP prepared the application and performed an accounting review on behalf of Dynic USA Corporation. The facility cost exceeds \$500,000 therefore, Maggie Vandehey performed the accounting review on behalf of the Department. Copies of invoices and canceled checks substantiated 100% of the allowable facility cost.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

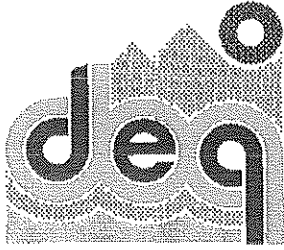
| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 15 years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No other alternatives were considered. |
| ORS 468.190(1)(d) Savings or Increase in Costs | Operating costs increase since there was no previous system. No estimate was given for the increase in operating costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: Air Contaminant Discharge Permit No. 34-0017, issued 11/04/96.

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
 Dennis Cartier, Associate, SJO Consulting Engineers
 Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|--------------------------|
| Applicant | Lamb Weston, Inc. |
| Application No. | 5178 |
| Facility Cost | \$407,181 |
| Percentage Allocable | 100% |
| Useful Life | 10 years |

Pollution Control Facility Tax Credit: Air Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a **producer of frozen potato products**. The applicant's taxpayer identification number is 47-0717390. The applicant's address is:

**PO Box 379
Boardman, OR 97818**

Facility Identification

The certificate will identify the facility as:

A Wet/Dry Electrostatic Precipitator (ESP)

The applicant is the owner of the facility located at:

**Columbia Ave and Olson Road
Boardman, OR 97818**

Technical Information

The claimed facility consists of a Wet/Dry ESP B-1021 manufactured by PPC Industries, and includes the necessary piping, pumps, exterior ducting, supports, and electrical for a complete system. The equipment operates to separate and collect particulate matter from the line 1 fryer exhaust using electrostatic force. The ESP is designed to handle 20,000 cfm at a temperature of 225°F with an inlet loading of 20 pounds per hour and a rated efficiency of 91%. It is being operated continuously in the wet mode. A waste removal system is connected to the ESP, which consists of a flush tank, and controls required for operation and an oil-recycle tank. The flush tank is used to adjust the pH of the ESP waste products. The oil-recycle tank collects recovered frying oil, which is sold to an oil renderer.

The applicant projects that on a 300-day operating schedule, particulate emissions in the dry mode would be 9.72 tons per year or 3.56 operating in the wet mode. Previous plant site emissions were 27 tons per year.

Eligibility

ORS 468.155 The **principal purpose** of this **installation of equipment** is to control and reduce a substantial quantity of air pollution. The requirement is imposed by the applicants ACDP permit no. 25-0032.

ORS 468.155 The reduction is accomplished by the elimination of air contaminants and the use of air cleaning devices as defined in ORS 468A.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>03/16/1999</u> |
| <i>Additional Information Requested</i> | <u>07/16/1999</u> |
| <i>Additional Information Received</i> | <u>09/13/1999</u> |
| <i>Application Substantially Complete</i> | <u>10/07/1999</u> |
| <i>Construction Started</i> | <u>03/1998</u> |
| <i>Construction Completed</i> | <u>07/1998</u> |
| <i>Facility Placed into Operation</i> | <u>07/1998</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | \$ 407,181 |
| Non-allowable Costs | \$ - |
| Allowable Facility Cost | <u>\$ 407,181</u> |

Barnett & Moro, P.C., C.P.A. performed an accounting review on behalf of the applicant. Copies of invoices and canceled checks substantiated 99% of the cost of the facility.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

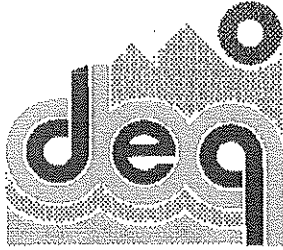
| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | Frying oil is recovered from the waste air stream and is sold to an oil renderer. The annual quantity is estimated at 50,400 pounds with a value of \$1,500. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 20 years. Because annual operating expenses exceed gross annual revenues, there is a zero return on the investment associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | Several alternatives were considered: a variable throat venturi, a high pressure drop venturi unit, and a dynamic cyclonic scrubber, however, the ESP represented a proven technology with the industry at a competitive cost and lowest cost to operate. |
| ORS 468.190(1)(d) Savings or Increase in Costs | Operating costs increase \$7,087 annually. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: Air Contaminant Discharge Permit No. 25-0032, issued May 8, 1998

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
Dennis Cartier, Associate, SJO Consulting Engineers
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Cain Petroleum Inc.**
Application No. **5185**
Facility Cost **\$197,978**
Percentage Allocable **94%**
Useful Life **10 years**

Pollution Control Facility: USTs

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C Corporation**
Business: **Retail gas station**
Taxpayer ID: **93-0132695**

The applicant's address is:

**2624 Pacific Avenue
Forest Grove, OR 97116**

Facility Identification

The certificate will identify the facility as:

**UST upgrade to meet EPA
requirements.**

The applicant is the owner of **DEQ Facility ID
11733**, located at:

**Gresham Chevron
17411 SE Powell Blvd.
Portland, OR 97236**

Technical Information

The applicant installed two doublewall fiberglass/steel underground storage tanks each with two compartments, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, line/turbine leak detectors, overfill alarm, sumps, automatic shutoff valves and Stage II vapor recovery.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
- OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 4/06/99 |
| <i>Application Substantially Complete</i> | 10/06/99 |
| <i>Construction Started</i> | 1/15/97 |
| <i>Construction Completed</i> | 4/16/97 |
| <i>Facility Placed into Operation</i> | 4/16/97 |

Facility Cost

Corrosion Protection

| | |
|--------------------------------------|--------|
| Fiberglass/steel tanks - doublewall | 20,372 |
| Flexible plastic piping – doublewall | 6,500 |

Spill & Overfill Prevention

| | |
|--------------------------|-----|
| Spill Containment basins | 851 |
| Overfill alarm | 300 |
| Sumps | 600 |
| Automatic shutoff valves | 422 |

Leak Detection

| | |
|-----------------------------|-------|
| Line/turbine leak detectors | 280 |
| Automatic tank gauge system | 6,000 |

VOC Reduction

| | |
|-------------------------|-----|
| Stage II vapor recovery | 750 |
|-------------------------|-----|

Labor, material, misc. parts

162,503

Claimed Facility Cost \$198,578

Non-allowable Costs

The automatic tank gauge system claimed by the applicant is ineligible because the same type of equipment was claimed on a prior tax credit.

-\$600

Allowable Facility Cost \$197,978

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|------------------|
| Allowable Facility Cost | \$197,978 |
| Less Claimed Corrosion Protection | 26,872 |

The allocable cost of a corrosion protected tank and piping system is determined by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

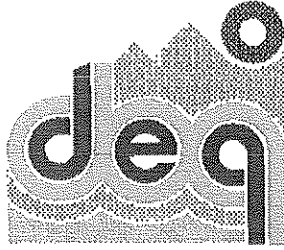
| | | | |
|-----------------------|-----------------|---------------------------|-----------------|
| <u>System Cost</u> | | | |
| Protected system cost | \$26,872 | less: bare steel cost | \$11,006 |
| | | | 15,866 |
| | | Total Reduced Cost | 186,972 |

Total Reduced Cost ÷ Allowable Facility Cost = the **94%**
percentage of the facility cost allocable to pollution control

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders, especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewer: Barbara J Anderson



Tax Credit Review Report

EOC 9911

Director's
Recommendation: **APPROVE**

Applicant **Willamette Industries, Inc.**
Application No. **5227**
Facility Cost **\$118,175**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Air

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a **paper mill**. The applicant's taxpayer identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue
Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

A stock pile cover system

The applicant is the owner of the facility of the facility located at:

**3401 Green River Road
Sweet Home, OR 97386**

Technical Information

The claimed facility consists of a stock pile cover, 175' wide by 350' long by 40' high. It includes a metal framework and chain-link fence around the perimeter of the shavings pile, tarps as a cover, and concrete blocks to anchor the tarps. Previously there was an open chip pile.

The function of the system is to minimize fugitive emissions of airborne particulate and reduce wood fiber in stormwater runoff. Notice of Approval for NC #016519 was issued by the DEQ on 8/20/97

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new device** is to prevent a substantial quantity of air pollution. The requirement is imposed by DEQ in OAR 340-21-060 (2), 340-25-320 (1) and NPDES 1200-Z
- ORS 468.155 (1)(b)(B) The prevention is accomplished by elimination of air contamination sources and with the use of an air cleaning device. An air cleaning device is defined in ORS 468A.005 as a method which reduces air contaminants prior to their discharge to the atmosphere. The cover acts as a barrier to the release of air contaminants before they can become airborne.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>6/2/99</u> |
| <i>Additional Information Requested</i> | <u>7/23/99</u> |
| <i>Additional Information Received</i> | <u>8/23/99</u> |
| <i>Application Substantially Complete</i> | <u>10/6/99</u> |
| <i>Construction Started</i> | <u>9/27/98</u> |
| <i>Construction Completed</i> | <u>12/23/98</u> |
| <i>Facility Placed into Operation</i> | <u>12/23/98</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | \$ 118,175 |
| Non-allowable Costs | |
| Allowable Facility Cost | <u>\$ 118,175</u> |

A certified public accountant's statement was performed by KPMG Peat Marwick LLP on behalf of the applicant. Copies of invoices were provided which substantiated 99% of the claimed facility cost.

Facility Cost Allocable to Pollution Control

According to ORS.190 (1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | The cover does not produce any salable or usable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. There is no gross annual revenue associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No other alternatives were investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings and operating costs increase. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility: NPDES Storm Water Discharge #1200-Z, issued 7/22/97

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Pollution Control Facility: USTs Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Director's
Recommendation: **APPROVE**

| | |
|----------------------|---------------------------|
| Applicant | M&M Rentals Co |
| Application No. | 5228 |
| Facility Cost | \$126,288 |
| Percentage Allocable | 92% |
| Useful Life | 7 years |

Applicant Identification

Organized As: **a corporation**
Business: **retail gas station**
Taxpayer ID: **93-0813232**

The applicant's address is:

**740 29th Ave. SW
Albany, OR 97321**

Facility Identification

The certificate will identify the facility as:

Upgrade to meet EPA Requirements.

The applicant is the owner of **DEQ Facility ID
No. 4201** located at:

**1645 Queen Ave., SW
Albany, OR 97321**

Technical Information

The facility consists of one doublewall fiberglass clad steel tank with two compartments, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, overfill alarm, line leak detectors, sumps, oil/water separator and automatic shutoff valves.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
- OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 7/15/99 |
| <i>Application Substantially Complete</i> | 10/07/99 |
| <i>Construction Started</i> | 3/1/98 |
| <i>Construction Completed</i> | 12/1/98 |
| <i>Facility Placed into Operation</i> | 12/1/98 |

Facility Cost

Corrosion Protection

| | |
|--------------------------------------|--------|
| Fiberglass/steel tank – doublewall | 18,843 |
| Flexible plastic piping – doublewall | 3,537 |

Spill & Overfill Prevention

| | |
|--------------------------|-------|
| Spill Containment basins | 567 |
| Sumps | 1,626 |
| Automatic shutoff valves | 344 |
| Oil/Water separator | 2,938 |

Leak Detection

| | |
|-----------------------------|-------|
| Automatic tank gauge system | 5,777 |
| Line leak detectors | 638 |

Labor, material, misc. parts

| | |
|--|--------|
| | 92,296 |
|--|--------|

Claimed Facility Cost \$126,866

Non-allowable Costs

Ten percent of the Tank Gauge System is ineligible since the device can serve other purposes, for example, inventory control.

(578)

Allowable Facility Cost **\$126,288**

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|-----------|
| Allowable Facility Cost | \$126,288 |
| Less Claimed Corrosion Protection | 22,380 |

The allocable cost of a corrosion protected tank and piping system is determined by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

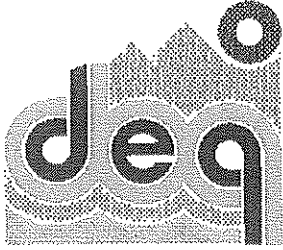
| | | | | |
|-----------------------|----------|----------------------|---------------------------|------------------|
| <u>System Cost</u> | | | | |
| Protected system cost | \$22,380 | less bare steel cost | \$9,832 | \$12,548 |
| | | | Total Reduced Cost | \$116,546 |

Total Reduced Cost ÷ Allowable Facility Cost = the **92%**
percentage of the facility cost allocable to pollution control

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewer: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Pollution Control Facility: USTs Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Director's
Recommendation: **APPROVE**

| | |
|----------------------|---------------------------|
| Applicant | M&M Rentals Co |
| Application No. | 5229 |
| Facility Cost | \$169,962 |
| Percentage Allocable | 87% |
| Useful Life | 7 years |

Applicant Identification

Organized As: **a corporation**
Business: **retail gas station**
Taxpayer ID: **93-0813232**

The applicant's address is:

**740 29th Ave. SW
Albany, OR 97321**

Facility Identification

The certificate will identify the facility as:

Upgrade to meet EPA requirements.

The applicant is the owner of **DEQ Facility ID
No. 813** located at:

**33157 Hwy 34 SE
Albany, OR 97321**

Technical Information

The facility consists of three doublewall fiberglass clad steel tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, line leak detectors, monitoring wells, sumps, oil/water separator and automatic shutoff valves.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
- OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>7/15/99</u> |
| <i>Application Substantially Complete</i> | <u>10/06/99</u> |
| <i>Construction Started</i> | <u>7/01/97</u> |
| <i>Construction Completed</i> | <u>12/01/97</u> |
| <i>Facility Placed into Operation</i> | <u>1/01/98</u> |

Facility Cost**Corrosion Protection**

| | |
|--------------------------------------|--------|
| Fiberglass/steel tanks – doublewall | 44,246 |
| Flexible plastic piping – doublewall | 22,466 |

Spill & Overfill Prevention

| | |
|--------------------------|-------|
| Spill Containment basins | 2,379 |
| Sumps | 3,640 |
| Automatic shutoff valves | 1,880 |
| Oil/Water separator | 7,678 |

Leak Detection

| | |
|-----------------------------|-------|
| Automatic tank gauge system | 4,224 |
| Monitoring wells | 114 |
| Line leak detectors | 8,469 |

Labor, material, misc. parts

75,288

| | |
|------------------------------|------------------|
| Claimed Facility Cost | \$170,384 |
|------------------------------|------------------|

Non-allowable Costs

| | |
|---|-------|
| Ten percent of the Tank Gauge System is ineligible since the device can serve other purposes, for example, inventory control. | (422) |
|---|-------|

| | |
|--------------------------------|------------------|
| Allowable Facility Cost | \$169,962 |
|--------------------------------|------------------|

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|-----------|
| Allowable Facility Cost | \$169,962 |
| Less Claimed Corrosion Protection | 66,712 |

The allocable cost of a corrosion protected tank and piping system is determined by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

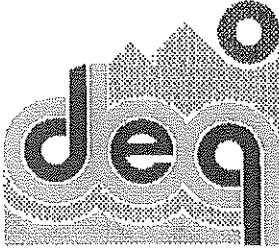
| | | | |
|-----------------------|----------|---------------------------|------------------|
| <u>System Cost</u> | | | |
| Protected system cost | \$66,712 | less bare steel cost | \$22,943 |
| | | | \$43,769 |
| | | Total Reduced Cost | \$147,019 |

Total Reduced Cost ÷ Allowable Facility Cost = the **87%**
percentage of the facility cost allocable to pollution control

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders, especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewer: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Pollution Control Facility: USTs Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Director's
Recommendation: **APPROVE**

| | |
|----------------------|-----------------------------|
| Applicant | Hockema Coast Oil Co |
| Application No. | 5233 |
| Facility Cost | \$133,477 |
| Percentage Allocable | 90% |
| Useful Life | 7 years |

Applicant Identification

Organized As: **a corporation**
Business: **retail gas station**
Taxpayer ID: **93-0618950**

The applicant's address is:

**740 29th Ave. SW
Albany, OR 97321**

Facility Identification

The certificate will identify the facility as:

Upgrade to meet EPA requirements.

The applicant is the owner of **DEQ Facility ID
No. 2238** located at:

**1015 Pacific Avenue
Tillamook, OR 97141**

Technical Information

The claimed facility consists of one doublewall fiberglass tank with two compartments, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, overfill alarm, line leak detectors, sumps and automatic shutoff valves.

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
- OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>7/20/99</u> |
| <i>Application Substantially Complete</i> | <u>10/07/99</u> |
| <i>Construction Started</i> | <u>9/01/98</u> |
| <i>Construction Completed</i> | <u>12/31/98</u> |
| <i>Facility Placed into Operation</i> | <u>1/01/99</u> |

Facility Cost

Corrosion Protection

| | |
|--------------------------------------|--------|
| Fiberglass tank – doublewall | 25,858 |
| Flexible plastic piping – doublewall | 7,730 |

Spill & Overfill Prevention

| | |
|--------------------------|-------|
| Spill Containment basins | 1,733 |
| Sumps | 2,534 |
| Automatic shutoff valves | 1,034 |

Leak Detection

| | |
|-----------------------------|-------|
| Automatic tank gauge system | 4,005 |
| Line leak detectors | 852 |

Labor, material, misc. parts

89,832

Claimed Facility Cost \$133,878

Non-allowable Costs

| | |
|---|-------|
| Ten percent of the Tank Gauge System is ineligible since the device can serve other purposes, for example, inventory control. | (401) |
|---|-------|

Allowable Facility Cost \$133,477

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|-----------|
| Allowable Facility Cost | \$133,477 |
| Less Claimed Corrosion Protection | 33,588 |

The allocable cost of a corrosion protected tank and piping system is determined by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

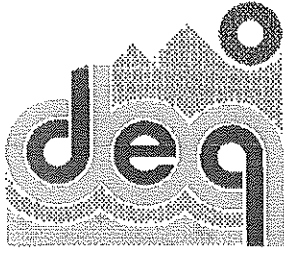
| | | | | |
|-----------------------|----------|----------------------|---------------------------|------------------|
| <u>System Cost</u> | | | | |
| Protected system cost | \$33,588 | less bare steel cost | \$13,585 | \$20,003 |
| | | | Total Reduced Cost | \$119,892 |

Total Reduced Cost ÷ Allowable Facility Cost = the **90%**
percentage of the facility cost allocable to pollution control

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders, especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewers: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **R Plastics, Inc.**
Application No. **5240**
Facility Cost **\$8,400**
Percentage Allocable **100%**
Useful Life **5 years**

Reclaimed Plastic Products Final Certification

ORS 468.451 -- 468.491
OAR 340-017-0010 -- 340-017-0055

Applicant Identification

The applicant is a C corporation operating as recycler, repressor & manufacturer of post consumer & industrial plastics. The applicant's taxpayer identification number 93-118-5846 and their address is:

**6402 NE Halsey
Portland, Oregon 97213**

Facility Identification

The certificate will identify the facility as:

**One Conair WortexJC-10L
Granulator, Serial # P6079; One HL-1
Hopper loader Serial #HL1095470799;
One D&W band saw, Serial #3212**

The applicant is the owner and operator of the facility. The facility is located at:

**6402 NE Halsey
Portland, Oregon 97213**

Technical Information

These machines are used to prepare and granulate scrap plastic so that it can be re-melted and manufactured into reclaimed plastic products.

Eligibility

ORS 468.461(1) Any person may apply to the EQC for certification of an investment made to allow the person to collect, transport or process reclaimed plastic or to manufacture a reclaimed plastic product.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.461(6).

| | |
|---|-------------------|
| <i>Preliminary application received</i> | 07/23/1999 |
| <i>Preliminary approval Granted</i> | 07/23/1999 |
| <i>Date of investment</i> | 07/26/1999 |
| <i>Final application received</i> | 08/26/1999 |
| <i>Application substantially complete</i> | 09/01/1999 |

Facility Cost

| | |
|--|--------------------|
| Claimed Facility Cost | \$12,185.00 |
| Non-allowable Costs | |
| Band saw not approved in preliminary application | \$ 3,785.00 |
| Allowable Facility Cost | \$8,400.00 |

Pursuant to OAR 340-017-003 (1)(a), invoices substantiated the cost of the facility. The facility cost does not exceed \$50,000; therefore, an independent accounting review was not required

Facility Cost Allocable to Pollution Control

Pursuant to ORS 468.486, the following factors were used to determine the percentage of the investment allocable to the collection, transportation or processing of reclaimed plastic or the manufacture of reclaimed plastic product.

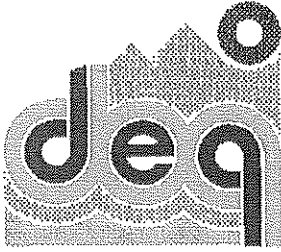
| Factor | Applied to This Facility |
|---|---|
| OAR 340-017-0030 (2)(a) Extent Used to convert reclaimed plastic into a salable or usable commodity. | The equipment is used 100% of the time to for processing reclaimed plastic into a salable or useable commodity. |
| OAR 340-017-0030 (2)(b) The alternative methods, equipment and costs for achieving the same objective; | No alternative methods were considered. |
| OAR 340-017-0030 (2)(c) Other relevant factors used to establish portion of the cost allocable to collection, transportation or processing of reclaimed plastic or the manufacture of reclaimed plastic products. | No other factors were considered relevant. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. There are no DEQ permits issued to this facility:

Reviewers: William R Bree



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Mobile One-Stop
Dorothy Rofinot**

Application No. **5246**
Facility Cost **\$105,390**
Percentage Allocable **98%**
Useful Life **10 years**

Pollution Control Facility: USTs Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: a **Sole Proprietor**
Business: **Retail Gas station**
Taxpayer ID: **541-32-0048**

The applicant's address is:

**745 Columbia River Hwy S
St. Helens, OR 97051**

Facility Identification

The certificate will identify the facility as:

An epoxy tank lining and galvanic cathodic protection for four underground storage tanks, doublewall flexible plastic piping, spill containment basins, turbine leak detectors, overfill alarm, sumps and automatic shutoff valves.

The applicant is the owner of **DEQ Facility ID 7577**, located at:

**745 Columbia River Hwy S
St. Helens, OR 97051**

Technical Information

The applicant installed an epoxy tank lining and galvanic cathodic protection for four underground storage tanks, doublewall flexible plastic piping, spill containment basins, turbine leak detectors, overfill alarm, sumps and automatic shutoff valves to meet EPA requirements.

Eligibility

ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.

OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>7/29/99</u> |
| <i>Application Substantially Complete</i> | <u>9/16/99</u> |
| <i>Construction Started</i> | <u>4/16/97</u> |
| <i>Construction Completed</i> | <u>8/7/97</u> |
| <i>Facility Placed into Operation</i> | <u>8/7/97</u> |

Facility Cost

Corrosion Protection

| | |
|---|----------|
| Epoxy lining on underground tanks | \$24,722 |
| Cathodic protection (impressed current) | 7,800 |
| Flexible plastic piping – doublewall | 7,757 |

Spill & Overfill Prevention

| | |
|--------------------------|-------|
| Spill Containment basins | 3,040 |
| Overfill alarm | 300 |
| Sumps | 3,900 |
| Automatic shutoff valves | 475 |

Leak Detection

| | |
|-----------------------------|-------|
| Turbine Leak detectors | 1,116 |
| Automatic tank gauge system | 9,204 |

Labor, material, misc. parts 56,280

Claimed Facility Cost 114,594

Non-allowable Costs

The automatic tank gauge system claimed by the applicant is ineligible because the same type of equipment was claimed on a prior tax credit. \$9,204

Allowable Facility Cost \$105,390

The applicant applied for a waiver of the independent accounting review since invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control

| | |
|--|------------------|
| Allowable Facility Cost | \$105,390 |
| Less Claimed Corrosion Protection | 7,757 |

The allocable cost of a corrosion protected piping system is determined by using a formula based on the difference in cost between the protected piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to this application:

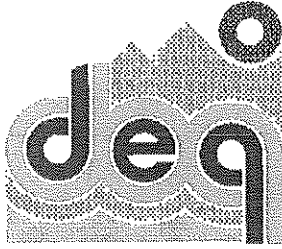
| | | | | |
|-----------------------|---------|----------------------|---------------------------|----------------|
| <u>System Cost</u> | | | | |
| Protected system cost | \$7,757 | less bare steel cost | \$1,640 | 6,117 |
| | | | Total Reduced Cost | <u>103,750</u> |

Total Reduced Cost ÷ Allowable Facility Cost = the percentage of the facility cost allocable to pollution control **98%**

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150.

Reviewers: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Bowco Industries, Inc.**
Application No. **5249**
Facility Cost **\$105,000**
Percentage Allocable **100%**
Useful Life **5 years**

Reclaimed Plastic Products

Final Certification

ORS 468.451 -- 468.491

OAR 340-017-0010 -- 340-017-0055

Applicant Identification

The applicant is a C corporation operating as a manufacturer of post consumer & industrial reclaimed plastic products. The applicant's taking tax relief under taxpayer identification number 93-1033851. The applicant's address is:

**5486 SE International Way
Milwaukie, Oregon 97222**

Facility Identification

The certificate will identify the facility as:

**Injection molding machine, Cincinnati
Milacron 400 ton, serial number
H04A0193004.**

The applicant is the owner and operator of the facility located at:

**5486 SE International Way
Milwaukie, Oregon 97222**

Technical Information

This injection molding machine is used to manufacture reclaimed plastic products, seed trays and duct terminators.

Eligibility

ORS 468.461(1) Any person may apply to the EQC for certification of an investment made to allow the person to collect, transport or process reclaimed plastic or to manufacture a reclaimed plastic product.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.461(6).

| | |
|---|-------------------|
| <i>Preliminary application received</i> | 08/03/1999 |
| <i>Preliminary approval Granted</i> | 08/03/1999 |
| <i>Date of investment</i> | 08/03/1999 |
| <i>Final application received</i> | 10/13/1999 |
| <i>Application substantially complete</i> | 10/13/1999 |

Facility Cost

| | |
|---|---------------------|
| Claimed Facility Cost | \$105,000.00 |
| Allowable Costs | |
| Band saw not covered in preliminary application | |
| Non-allowable Facility Cost | \$105,000.00 |

The applicant requested that an independent accountants review be waived. Pursuant to OAR 340-017-003 (1)(a), the applicant provided an invoice that substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

Pursuant to ORS 468.486, the following factors were used to determine the percentage of the investment allocable to the collection, transportation or processing of reclaimed plastic or the manufacture of reclaimed plastic product.

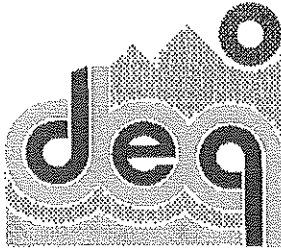
| Factor | Applied to This Facility |
|---|---|
| OAR 340-017-0030 (2)(a) Extent Used to convert reclaimed plastic into a salable or usable commodity. | The equipment is used 100% of the time to for processing reclaimed plastic into a salable or useable commodity. |
| OAR 340-017-0030 (2)(b) The alternative methods, equipment and costs for achieving the same objective; | No alternative methods were considered. |
| OAR 340-017-0030 (2)(c) Other relevant factors used to establish portion of the cost allocable to collection, transportation or processing of reclaimed plastic or the manufacture of reclaimed plastic products. | No other factors were considered relevant. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. There are no DEQ permits issued to this facility.

Reviewers: William R Bree



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|------------------------------------|
| Applicant | Westmoreland Cleaners, Inc. |
| Application No. | 5254 |
| Facility Cost | \$2,500.00 |
| Percentage Allocable | 100% |
| Useful Life | 10 years |

Pollution Control Facility: Water Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **an S corporation**

Business: **dry cleaners**

Taxpayer ID: **93-1192639**

The applicant's address is:

**6701 SE Milwaukie Ave.
Portland, OR 97202**

Facility Identification

The certificate will identify the facility as:

**A MIST-IT Mark II™ (serial # 1864)
manufactured by Air Quality
Laboratories.**

The applicant is the owner of the facility located
at:

**6701 SE Milwaukie Ave.
Portland, OR 97202**

Technical Information

The mister filters perchloroethylene (perc) dry-cleaning solvent from wastewater using carbon filters, reducing solvent from 400 ppm to 1 ppm. The effluent is then atomized to the atmosphere. If liquid perc is detected in the tank, the mister ceases to mist and the liquid perc is returned to the dry-cleaning machine for distillation. Once the carbon filter is full it is managed as hazardous waste.

Before the mister was installed, SAFETY KLEEN™, a waste management company, removed the wastewater from the site.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new installation and equipment** is to prevent, control or reduce a substantial quantity of water pollution. Beginning June 30, 1998, the waste minimization requirements for dry cleaning facilities (ORS 465.505 (b) and (f)) prohibits the discharge of solvent-contaminated discharge to any sanitary sewer, septic system or waters of the State.
- ORS 468.155 (1)(b)(A) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005
- OAR-016-0025 (2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>8/10/99</u> |
| <i>Application Substantially Complete</i> | <u>9/21/99</u> |
| <i>Construction Started</i> | <u>5/1/98</u> |
| <i>Construction Completed</i> | <u>5/1/98</u> |
| <i>Facility Placed into Operation</i> | <u>5/1/98</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | <u>\$2,500.00</u> |
| Allowable Facility Cost | <u>\$2,500.00</u> |

An independent accounting review was not required because the facility cost does not exceed \$50,000. One paid invoice substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility.

Reviewers: Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Stafford Property Equipment Leasing**
Application No. **5257**
Facility Cost **\$510,000.00**
Percentage Allocable **100%**
Useful Life **7 years**

Pollution Control Facility: Solid Waste Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: a **limited liability corporation**

Business: **Equipment leasing**

Taxpayer ID: **93-1261392**

The applicant's address is:

**20200 SW Stafford Road
Tualatin, OR 97062**

Facility Identification

The certificate will identify the facility as:

**A 4860HZ Magnum Force (serial number
486HZ34123A0340) garden grinder used to
grind yard debris into garden mulch**

Stafford Property, Equipment, Leasing, &
Development Co. owns the equipment, and S&H
Logging Co. operates the equipment according to an
executed Lease Agreement. The facility is located at:

**20200 SW Stafford Road
Tualatin, OR 97062**

Technical Information

This grinder will be used to process source separated yard debris and other organic material. The processed material is then composted into a salable product.

Eligibility

ORS 468.155 (1)(a) The **sole purpose** of this **new equipment** is to prevent, control or reduce a substantial quantity of solid waste.

ORS 468.155 (1)(b)(D) The equipment uses a **material recovery process** which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>8/23/99</u> |
| <i>Application Substantially Complete</i> | <u>9/01/99</u> |
| <i>Construction Started</i> | <u>12/21/98</u> |
| <i>Construction Completed</i> | <u>12/21/98</u> |
| <i>Facility Placed into Operation</i> | <u>12/21/98</u> |

Facility Cost

| | |
|-------------------------|---------------------|
| Claimed Facility Cost | <u>\$510,000.00</u> |
| Allowable Facility Cost | <u>\$510,000.00</u> |

The facility cost exceeds \$500,000. James A. Jones, CPA certified the claimed cost of the grinder. An invoice substantiated the cost of the facility. Maggie Vandehey performed the accounting review on behalf of the Department.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190(1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control. The percentage of the facility cost allocable to pollution control is **100%**.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | The use of this equipment results in production of a salable and useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. The average annual cash flow for the facility is \$11,064. This results in a return on investment factor of 46.09 and a 0% return on investment. Therefore the portion of cost allocable to pollution control is 100%. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. The following DEQ permits were issued to the facility. An application for composting permit is pending Metro review.

Reviewers: William R Bree, DEQ
Maggie Vandehey, DEQ

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT
POLLUTION PREVENTION PILOT PROGRAM

1. Applicant

Ken's Dry Cleaning
PO Box 749
Winchester, Oregon 97495

The applicant owns and operates a dry-cleaning shop located at 470 NE Garden Valley Blvd. Roseburg, Oregon.

Application was made for tax credit for an air pollution prevention facility.

2. Description of Facility

The claimed facility is a new non venting dry-to-dry perc dry-cleaning machine which was installed as a replacement for an old transfer perc dry-cleaning machine which vented emissions to the atmosphere. The new perc machine reduces the creation of emissions by maintaining them within the machine.

Claimed Facility Cost: \$ 33,382

3. Procedural Requirements

The facility is governed by ORS 468A.095 through 468A.098, and by OAR Chapter 340, Division 16.

The facility met all regulatory deadlines in that:

Installation of the pollution prevention facility was substantially completed on August 16, 1998. The application for final certification was received by the Department on August 15, 1999. The application was found to be complete on August 31, 1999. The application was considered to be complete at the time it was received by the Department, within one year of installation of the facility.

4. Evaluation of Application

Rationale For Eligibility

- (1) The pollution prevention facility is eligible because it meets the requirement of avoiding the substantive requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP), specifically 40 CFR 63.320 to 63.325 national perchloroethylene air emissions standard for dry cleaning facilities.

The facility does not qualify for a pollution control tax credit under ORS 468.165 and 468.170.

- (2) The owner installed equipment which resulted in perchloroethylene use of less than 140 gallons per year and the dry cleaning facility qualifies as a small area source under the NESHAP.
- (3) The dry cleaning facility is registered under the Clean Air Act Title III National Emissions Standards for Hazardous Air Pollutants.

5. Summation

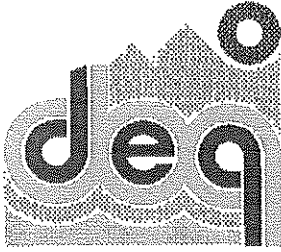
- a. The pollution prevention facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that it meets the definition of a pollution prevention facility for this pilot program.
- c. The applicant indicated that the tax credit program was not a determining factor in installing this equipment.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Prevention Facility Certificate bearing the cost of \$ 33,382 be issued for the facility claimed in Tax Credit Application No. T-5258.

DPK

08/31/99 2:24 PM



Tax Credit Review Report

EQC 9911

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **C corporation**

Business: **Auto Repair**

Taxpayer ID: **93-0842953**

The applicant's address is:

**4031 SE 26th Avenue
Portland, OR 97202-2951**

Technical Information

The A/C equipment is capable of recovering/recycling, evacuating and recharging both R-12 and R134 refrigerant types. The equipment meets all current SAE, UL, and CSA standards of operation, performance and purity.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new equipment** is to prevent, control or reduce a substantial quantity of air pollution.
- ORS 468.155 (1)(b)(B) The pollution control is accomplished by the disposal or elimination of or redesign to eliminate air contamination sources and the use of air cleaning devices as defined in ORS 468A.005

Director's
Recommendation: **APPROVE**

Applicant **Sharp Auto & Paint Works**
Application No. **5259**
Facility Cost **\$3,290.00**
Percentage Allocable **100%**
Useful Life **years**

Facility Identification

The certificate will identify the facility as:

**An ECO-12 recover-recycle-recharge
9751A0315 and a ECO-134 recover-
recycle-recharge 980681959 from
Snap-on Diagnostics.**

The applicant is the owner of the facility located
at:

**4031 SE 26th Avenue
Portland, OR 97202-2951**

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>8/25/99</u> |
| <i>Application Substantially Complete</i> | <u>9/23/99</u> |
| <i>Construction Started</i> | <u>4/15/98</u> |
| <i>Construction Completed</i> | <u>4/15/98</u> |
| <i>Facility Placed into Operation</i> | <u>4/15/98</u> |

Facility Cost

| | |
|---|--------------------|
| Claimed Facility Cost | \$5,190.00 |
| Salvage Value | (500.00) |
| Non-allowable cost – standard deduction for recharge capabilities | <u>(1,400.00)</u> |
| Allowable Facility Cost | \$3,290.00 |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

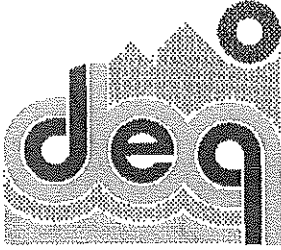
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Capitol Recycling & Disposal, Inc.**
Application No. **5260**
Facility Cost **\$11,997**
Percentage Allocable **100%**
Useful Life **5 years**

Pollution Control Facility: Solid Waste Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C corporation**
Business: **solid waste & recycling
collection facility**
Taxpayer ID: **931197641**

The applicant's address is:

**1890 16th Street SE
Salem, OR 97302**

Facility Identification

The certificate will identify the facility as:

**Twenty 6-yd front load newspaper
recycling containers, without serial
numbers**

The applicant is the owner of the facility located
at:

**1890 16th Street SE
Salem, OR 97302**

Technical Information

These front loader containers will be use for the storage and collection of source separated newspaper from multi-family residential collection customers in the City of Salem and Marion County.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new equipment** is to prevent, control or reduce a substantial quantity of solid waste. These containers will be used exclusively for the collection of recyclable newspaper.
- ORS 468.155 (1)(b)(D) The applicant uses a material recovery process which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165(6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>8/25/99</u> |
| <i>Application Substantially Complete</i> | <u>9/01/99</u> |
| <i>Construction Started</i> | <u>12/15/97</u> |
| <i>Construction Completed</i> | <u>1/12/98</u> |
| <i>Facility Placed into Operation</i> | <u>2/01/98</u> |

Facility Cost

| | |
|-------------------------|-----------------|
| Claimed Facility Cost | <u>\$11,997</u> |
| Allowable Facility Cost | <u>\$11,997</u> |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, an invoice and a canceled check substantiated the cost of the facility.

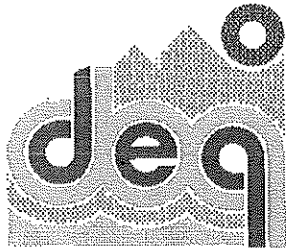
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: William R Bree



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

| | |
|----------------------|--------------------------------------|
| Applicant | United Disposal Service Inc.. |
| Application No. | 5261 |
| Facility Cost | \$5,781 |
| Percentage Allocable | 100% |
| Useful Life | 5 years |

Pollution Control Facility: Solid Waste Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a recycle facility. The applicant's taxpayer identification number is 93-0625022 and their address is:

**2215 N Front Street
Woodburn, OR 97071**

Facility Identification

The certificate will identify the facility as:

Ten 8 yard front end loader cardboard recycling containers, serial #s 159509-159518.

The applicant is the owner of the facility located at:

**2215 N Front Street
Woodburn, OR 97071**

Technical Information

These collection bins are used for the collection of recyclable cardboard from commercial customers in Marion County.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new equipment** is to prevent, control, or reduce a substantial quantity of solid waste. These containers are used exclusively for the collection of recyclable cardboard.
- ORS 468.155 (1)(b)(D) The use of a **material recovery process** which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165(6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>08/27/1999</u> |
| <i>Application Substantially Complete</i> | <u>08/31/1999</u> |
| <i>Construction Started</i> | <u>04/10/1999</u> |
| <i>Construction Completed</i> | <u>05/20/1999</u> |
| <i>Facility Placed into Operation</i> | <u>06/10/1999</u> |

Facility Cost

| | |
|-------------------------|----------------|
| Claimed Facility Cost | \$5,781 |
| Non-allowable Costs | \$ - |
| Allowable Facility Cost | <u>\$5,781</u> |

Invoices or canceled checks substantiated the cost of the facility. The facility cost does not exceed \$50,000; therefore, an independent accounting review was not required.

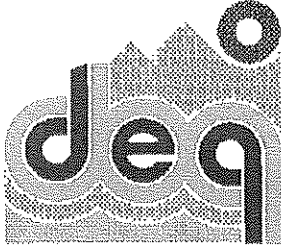
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000, according to ORS 468.190(3) the only factor used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of time this facility is used for pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders. There are no DEQ permits issued to this facility.

Reviewers: William R Bree



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Capitol Recycling & Disposal, Inc.**
Application No. **5263**
Facility Cost **\$34,104.00**
Percentage Allocable **100%**
Useful Life **5 years**

Pollution Control Facility: Solid Waste Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C corporation**
Business: **solid waste & recycling
collection facility**
Taxpayer ID: **931197641**

The applicant's address is:

**1890 16th Street SE
Salem, OR 97302**

Facility Identification

The certificate will identify the facility as:

**Forty 4-yd front load cardboard
recycling containers, serial #'s 150309
to 150318 & 150277 to 150305. Forty 6-
yd front load cardboard recycling
containers serial #'s 150337 to 150376**

The applicant is the owner of the facility located
at:

**1890 16th Street SE
Salem, OR 97302**

Technical Information

These front loader containers will be use for the storage and collection of source separated cardboard from commercial collection customers in the City of Salem and Marion County.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new equipment** is to prevent, control or reduce a substantial quantity of solid waste. These containers will be used exclusively for the collection of recyclable cardboard.
- ORS 468.155 (1)(b)(D) The equipment will be used in a material recovery process which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>8/30/99</u> |
| <i>Application Substantially Complete</i> | <u>9/01/99</u> |
| <i>Construction Started</i> | <u>1/15/98</u> |
| <i>Construction Completed</i> | <u>2/27/98</u> |
| <i>Facility Placed into Operation</i> | <u>3/15/98</u> |

Facility Cost

| | |
|-------------------------|-----------------|
| Claimed Facility Cost | <u>\$34,104</u> |
| Allowable Facility Cost | <u>\$34,104</u> |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, an invoice and canceled checks substantiated the cost of the facility.

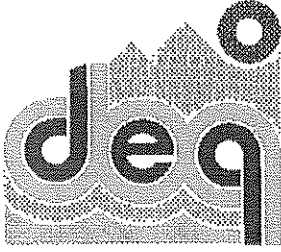
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: William R Bree



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **New China Laundry & Dry Cleaning**
Application No. **5265**
Facility Cost **\$3,381**
Percentage Allocable **100%**
Useful Life **3 years**

Pollution Control Facility: Water Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C corporation**
Business: **dry cleaning facility**
Taxpayer ID: **93-0789585**

The applicant's address is:

**105 NE 8th Avenue
Portland, OR 97232**

Facility Identification

The certificate will identify the facility as:

**A metal drip containment pan for dry
cleaning machines and a MIST-IT
Mark II.**

The applicant is the owner of the facility located
at:

**105 NE 8th Avenue
Portland, OR 97232**

Technical Information

The applicant installed one containment pan under the dry cleaning machine to contain any solvent drips that otherwise could have leached through the concrete and cause contamination. The mister filters dry cleaning solvent from wastewater using carbon, reducing solvent from 400 ppm to 1 ppm. The effluent is then atomized to the atmosphere. Once the carbon is full it is managed as hazardous waste.

Eligibility

ORS 468.155 (1)(a) The **principal purpose** of this **new installation and equipment** is to prevent, control or reduce a substantial quantity of water pollution. Beginning June 30, 1998, the waste minimization requirements for dry cleaning facilities prohibits the discharge of solvent-contaminated discharge to any sanitary sewer, septic

- system or waters of the State. ORS 465.505 (b) and (f)
- ORS 468.155 (1)(b)(A) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005.
- OAR-016-0025 (2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>9/22/99</u> |
| <i>Application Substantially Complete</i> | <u>10/12/99</u> |
| <i>Construction Started</i> | <u>5/28/98</u> |
| <i>Construction Completed</i> | <u>9/11/99</u> |
| <i>Facility Placed into Operation</i> | <u>9/17/99</u> |

Facility Cost

| | |
|-------------------------|----------------|
| Claimed Facility Cost | <u>\$3,381</u> |
| Allowable Facility Cost | <u>\$3,381</u> |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Happy Hangers Cleaners**
Application No. **5266**
Facility Cost **\$3,300.00**
Percentage Allocable **100%**
Useful Life **3 years**

Pollution Control Facility: Water Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a partnership**
Business: **dry cleaning facility**
Taxpayer ID: **93-1182983**

The applicant's address is:

**19383 Willamette Dr.
West Linn, OR 97068**

Facility Identification

The certificate will identify the facility as:

**A metal drip containment pan for dry
cleaning machines.**

The applicant is the owner of the facility located
at:

**19383 Willamette Dr.
West Linn, OR 97068**

Technical Information

The applicant installed one containment pan under the dry cleaning machine to contain any solvent drips that otherwise could have leached through the concrete and cause contamination.

Eligibility

- ORS 468.155 The **principal purpose** of this **new installation and equipment** is to prevent, control
(1)(a) or reduce a substantial quantity of water pollution. Beginning June 30, 1998, the
waste minimization requirements for dry cleaning facilities prohibits the discharge of
solvent-contaminated discharge to any sanitary sewer, septic system or waters of the
State. ORS 465.505 (b) and (f)
- ORS 468.155 The disposal or elimination of or redesign to eliminate industrial waste and the use of
(1)(b)(A) treatment works for industrial waste as defined in ORS 468B.005.
- OAR-016-
0025 (2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent
spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>9/22/99</u> |
| <i>Application Substantially Complete</i> | <u>10/11/99</u> |
| <i>Construction Started</i> | <u>6/30/98</u> |
| <i>Construction Completed</i> | <u>6/30/98</u> |
| <i>Facility Placed into Operation</i> | <u>6/30/98</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | <u>\$3,300.00</u> |
| Allowable Facility Cost | <u>\$3,300.00</u> |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

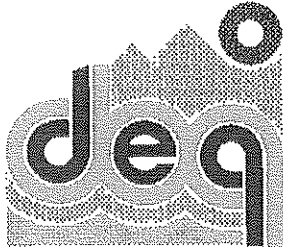
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: Maggie Vandehey



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Clemens Automotive, Inc.**
Application No. **5268**
Facility Cost **\$4,399.00**
Percentage Allocable **100%**
Useful Life **3 years**

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **an S corporation**

Business: **auto repair shop**

Taxpayer ID: **91-1823853**

The applicant's address is:

**3401 N Lombard St.
Portland, OR 97217-1209**

Facility Identification

The certificate will identify the facility as:

**Viper GT R-12 & R-134A refrigerant
recovery and recycling machine**

The applicant is the owner of the facility located
at:

**3401 N Lombard St.
Portland, OR 97217-1209**

Technical Information

The A/C equipment is capable of recovering/recycling, evacuating and recharging both R-12 and R134 refrigerant types. The equipment was certified by UL as meeting the purity standards in the Society of Automotive Engineering Specification J191.

Eligibility

- ORS 468.155 The **principal purpose** of this **new equipment** is to prevent, control or reduce a
(1)(a) substantial quantity of air pollution.
- ORS 468.155 The pollution control is accomplished by the disposal or elimination of or
(1)(b)(B) redesign to eliminate air contamination sources and the use of air cleaning
devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>9/22/99</u> |
| <i>Application Substantially Complete</i> | <u>10/12/99</u> |
| <i>Construction Started</i> | <u>7/21/99</u> |
| <i>Construction Completed</i> | <u>7/21/99</u> |
| <i>Facility Placed into Operation</i> | <u>7/21/99</u> |

Facility Cost

| | |
|--|-------------------|
| Claimed Facility Cost | \$5,099.00 |
| Non-allowable Costs – DEQ Standard deduction for equipment with recharge capabilities | <u>-\$700.00</u> |
| Allowable Facility Cost | \$4,399.00 |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, an invoice substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: Maggie Vandehey



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Clarence Simmons Farm, Inc.**
Application No. **5272**
Facility Cost **\$55,628.00**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Field Burning Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a C corporation**
Business: **grass seed farm**
Taxpayer ID: **93-0652713**

The applicant's address is:

**3472 Howell Prairie Road, NE
Silverton, OR 97381**

Facility Identification

The certificate will identify the facility as:

**a 100' x 60' x 23' steel construction
storage building for storing straw**

The applicant is the owner of the facility located
at:

**3472 Howell Prairie Road, NE
Silverton, OR 97381**

Technical Information

The applicant has 425 acres of perennial grass seed under cultivation. In the past, the applicant open field burned as many of those acres as the smoke management program and weather permitted. As an alternative to open field burning, the applicant has had a baler service bale the straw for removal from the fields. The baler service now requires that storage be available for the straw before they will commit their baling services.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new building** is to prevent, control or reduce a substantial quantity of air pollution.
- OAR-016-025 (2)(f)(A) Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 10/5/99 |
| <i>Application Substantially Complete</i> | 10/14/99 |
| <i>Construction Started</i> | 3/9/98 |
| <i>Construction Completed</i> | 6/8/98 |
| <i>Facility Placed into Operation</i> | 6/8/98 |

Facility Cost

| | |
|-------------------------|--------------------|
| Claimed Facility Cost | \$55,628.00 |
| Allowable Facility Cost | \$55,628.00 |

The facility cost was greater than \$50,000 but less than \$500,000. Therefore, Aldrich, Kilbride & Tatone, LLP, CPA performed an accounting review on behalf of the Applicant and according to Department guidelines.

Facility Cost Allocable to Pollution Control

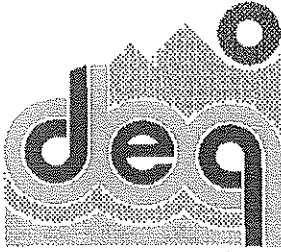
The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control. The percentage of the facility cost allocable to pollution control is **100%**.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is years. No gross annual revenues were associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewer: Jim Britton



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Roger Eder**
Application No. **5273**
Facility Cost **\$44,601.00**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Field Burning Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a Sole Proprietor**
Business: **a grass seed farm**
Taxpayer ID: **Social Security Number**

The applicant's address is:

**9286 Waconda Rd. NE
Brooks, OR 97305**

Facility Identification

The certificate will identify the facility as:

**One 120' x 80' x 21' steel
construction storage building for
straw**

The applicant is the owner of the facility located
at:

**9286 Waconda Rd. NE
Brooks, OR 97305**

Technical Information

The applicant has 286 acres of perennial grass seed under cultivation. In the past, the applicant open field burned as many of those acres as the smoke management program and weather permitted. As an alternative to open field burning, the applicant has had a baler service bale the straw for removal from the fields. The baler service now requires that storage be available for the straw before they will commit their baling services. The applicant has not previously filed a tax credit application.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new building** is to prevent, control or reduce a substantial quantity of air pollution.
- OAR-016-025 (2)(f)(A) Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | 10/5/99 |
| <i>Application Substantially Complete</i> | 10/12/99 |
| <i>Construction Started</i> | 3/8/99 |
| <i>Construction Completed</i> | 7/6/99 |
| <i>Facility Placed into Operation</i> | 7/6/99 |

Facility Cost

| | |
|-------------------------|--------------------|
| Claimed Facility Cost | \$44,601.00 |
| Allowable Facility Cost | \$44,601.00 |

The facility cost does not exceed \$50,000. An independent accounting review was not required. However, Aldrich, Kilbride & Tatone, LLP, CPA, submitted a certification of cost on behalf of the applicant.

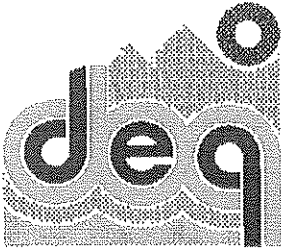
Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: James Britton



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **APPROVE**

Applicant **Mars Enterprises, Inc.**
Application No. **5275**
Facility Cost **\$149,753.18**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility: Field Burning Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **a partnership**
Business: **grass seed farm**
Taxpayer ID: **93-1277126**

The applicant's address is:

**4196 81st Avenue
Salem, OR 97305**

Facility Identification

The certificate will identify the facility as:

**a 200' x 80' x 22' steel construction
storage building for the storage of straw,
Steffen system straw loader, and a 45'
flatbed trailer**

The applicant is the owner of the facility located
at:

**3064 82nd Ave NE
Salem, OR 97305**

Technical Information

The applicant has 670 acres of perennial grass seed under cultivation. In the past, the applicant open field burned as many of those acres as the smoke management program and weather permitted. In recent years, as an alternative to open field burning the applicant had straw removed from the fields by a custom baler. However, straw removal was often not removed timely and yield reductions were suffered. The applicant has elected to purchase straw removal equipment and this straw storage facility. Records indicate that this applicant has not previously applied for an alternative to field burning tax credit.

Eligibility

ORS 468.155 The **sole purpose** of this **new building** is to prevent, control or reduce a
(1)(a) substantial quantity of air pollution.

0AR-016-025 Equipment, facilities, and land for gathering, densifying, processing, handling,
(2)(f)(A) storing, transporting and incorporating grass straw or straw based products
which will result in reduction of open field burning.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-----------------|
| <i>Application Received</i> | <u>10/12/99</u> |
| <i>Application Substantially Complete</i> | <u>10/15/99</u> |
| <i>Construction Started</i> | <u>3/18/98</u> |
| <i>Construction Completed</i> | <u>8/1/98</u> |
| <i>Facility Placed into Operation</i> | <u>8/1/98</u> |

Facility Cost

| | |
|--|-------------------------|
| Claimed Facility Cost | \$149,753 |
| Insignificant Contribution ORS 468.155(2)(d) | |
| Allowable Facility Cost | <u>\$149,753</u> |

The facility cost was greater than \$50,000 but less than \$500,000, therefore, Hanson & Associates, LLC, CPA performed an accounting review on behalf of the Applicant and according to Department guidelines.

Facility Cost Allocable to Pollution Control

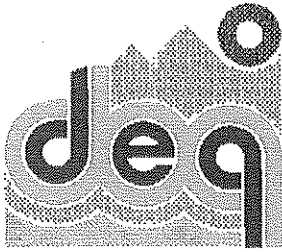
The facility cost exceeds \$50,000. According to ORS 468.190 (1), the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control. The percentage of the facility cost allocable to pollution control is **100%**.

| <u>Factor</u> | <u>Applied to This Facility</u> |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | This facility provides the salable commodity straw protection from inclement weather. |
| ORS 468.190(1)(b) Return on Investment | The allocation of cost calculation demonstrates a negative annual cash flow. |
| ORS 468.190(1)(c) Alternative Methods | Investigated using custom baler for straw removal. |
| ORS 468.190(1)(d) Savings or Increase in Costs | \$4,283 negative annual cash flow. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to facility.

Reviewers: James Britton



Tax Credit Review Report

**Pollution Control Facility: USTs
Final Certification**
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Director's
Recommendation: **APPROVE**

Applicant: **Don Worthington**
Application No. **5277**
Facility Cost **\$49,820**
Percentage Allocable **100%**
Useful Life **7 years**

Applicant Identification

Organized As: **a sole proprietor**
Business: **a retail gasoline station**
Taxpayer ID: **91-1784184**

The applicant's address is:

**8816 E Evans Creek Road
Rogue River OR 97537**

Facility Identification

The certificate will identify the facility as:

One doublewall fiberglass underground storage tank with two compartments, doublewall flexible plastic piping, spill containment basin, automatic tank gauge system, line leak detectors, overfill alarm, sumps and automatic shutoff valves.

The applicant is the owner of **DEQ Facility ID 2811**, located at:

**Wimer Market
8816 E. Evans Creek Road
Rogue River, OR 97537**

Technical Information

Eligibility

- ORS 468.155 The **principal purpose** of this **installation** is to prevent, control or reduce a
(1)(a) substantial quantity of air and water pollution.
OAR-016-0025 Installation or construction of facilities which will be used to detect, deter, or
(2)(g) prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>10/13/1999</u> |
| <i>Application Substantially Complete</i> | <u>10/21/1999</u> |
| <i>Construction Started</i> | <u>08/01/1998</u> |
| <i>Construction Completed</i> | <u>09/28/1998</u> |
| <i>Facility Placed into Operation</i> | <u>09/28/1998</u> |

Facility Cost

Claimed Facility Cost \$49,820

Corrosion Protection

| | |
|--|---------|
| Fiberglass underground tank – doublewall | \$9,522 |
| Flexible plastic piping – doublewall | \$1,920 |

Spill & Overfill Prevention

| | |
|--------------------------|-----|
| Spill containment basins | 329 |
| Overfill alarm | 175 |
| Sumps | 582 |
| Automatic shutoff valves | 80 |

Leak Detection

| | |
|-----------------------------|-------|
| Automatic tank gauge system | 2,385 |
| Line Leak detectors | 368 |

Labor, material, misc. parts

34,459

Allowable Facility Cost \$49,820

The applicant received a \$45,000 DEQ grant for this project. The applicant deducted the amount from the claimed cost according to rule. The facility cost does not exceed \$50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders, especially, Underground Storage Tank requirements under OAR Chapter 340, Division 150. No DEQ permits have been issued to this facility.

Reviewers: Barbara J Anderson



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **DENY**

Applicant **Mitsubishi Silicon America**
Application No. **4834**
Facility Cost **\$158,667**
Percentage Allocable **100%**
Useful Life **10 years**

Pollution Control Facility Tax Credit: Water Final Certification

ORS 468.150 -- 468.190
OAR 340-16-0005 -- 340-16-0050

Applicant Identification

The applicant is a C corporation operating as a supplier of electronic grade silicon wafers. Their taxpayer identification number is 93-1687933. The applicant's address is:

**1351 Tandem Ave., NE
Salem, OR 97303**

Facility Identification

The certificate will identify the facility as:

**Double contained hazardous waste gravity
drain piping system located on the
polished wafer building roof.**

The applicant is the owner of the facility located at:

**1351 Tandem Ave., NE
Salem, OR 97303**

Technical Information

The claimed facility consists of a double contained gravity drain piping system which transports hazardous acid wastes from their sources to the waste neutralization area. The piping system is located on the roof of the polished wafer building. Though there are monitoring ports and an alarm system they are not part of this application.

Previously, hazardous acid waste flowed via underground single walled piping, and there were no monitoring ports to detect leaks. The claimed facility was installed to replace the underground system. The applicant claims that the claimed facility is 99%+ effective at eliminating the risk of groundwater contamination because it eliminates the use of the buried single contained piping.

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **new device** is **not** to prevent, control or reduce a substantial quantity of water pollution because it is not required by the DEQ or the Federal Environmental Protection Agency.
- ORS 468.155 (1)(a) The piping fails the **sole purpose** requirement because it's "exclusive" purpose is **not** to prevent, control or reduce a substantial quantity of water pollution. It's other purpose is to meet the spill control and secondary containment requirements of the Uniform Fire Code for hazardous waste piping.
- OAR-16-025 (2)(g) The installation of the claimed facility will **not** be used to detect, deter, or prevent a spill or unauthorized release to the environment. If the pipe ruptures and spills, the hazardous waste will run into the building.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | 09/19/1997 |
| <i>Application Substantially Complete</i> | 09/30/1999 |
| <i>Construction Started</i> | 07/01/1995 |
| <i>Construction Completed</i> | 07/01/1995 |
| <i>Facility Placed into Operation</i> | 10/01/1995 |

Facility Cost

| | |
|-------------------------|--------------------|
| Claimed Facility Cost | \$ 158,667 |
| Non-allowable Costs | \$ -158,667 |
| Allowable Facility Cost | \$ 0 |

A cost summary was provided with the application. Labor costs claimed in the application did not include any labor costs associated with an employee of the applicant. **Symonds, Evans, & Larson, P.C.** provided the report of independant auditors.

Facility Cost Allocable to Pollution Control

Because the facility is ineligible, the percentage allocable to pollution control is 0%.

Compliance

The applicant claims the facility is in compliance with Department rules and statutes and with EQC orders. The following DEQ permits are issued to facility:

- Industrial Pretreatment Permit (City of Salem) No. D-3674-I, 1/97
- Storm Water Discharge Permit (DEQ) No. 1200L, 3/93

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
 Dennis Cartier, Associate, SJO Consulting Engineers
 Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **DENY**

| | |
|-------------------------------------|---------------------------|
| Applicant | Valmont Industries |
| Application No. | 4801 |
| <u>Claimed</u> Facility Cost | \$407,722 |
| <u>Claimed</u> Percentage Allocable | 100% |
| Useful Life | 10 years |

Pollution Control Facility: Hazardous Waste Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a **galvanizing plant**. The taxpayer's identification number is 93-0781997 and their address is:

**9700 SW Herman Road
Tualatin, OR 97062**

Facility Identification

The facility is identified as:

**Secondary containment tanks, trenches,
containment pit & other building
modifications for secondary containment
of hazardous materials.**

The applicant is the **owner** of the facility located at:

**9700 SW Herman Road
Tualatin, OR 97062**

Technical Information

The secondary containment system consists of a series of external secondary containment tanks, and trenches designed to contain corrosive hazardous materials which are used in the manufacturing process. The floor of the system is constructed of concrete and sealed to prevent spilled hazardous materials from breaching the concrete and entering the environment. The claimed facility does not include any storage facilities for hazardous waste.

Eligibility

ORS 468.155 The **principal purpose** of this **new device installation** is **not** to prevent, control, or
(1)(a) reduce a substantial quantity of water pollution because it is not required by the DEQ or the federal Environmental Protection Agency.

ORS 468.155 The **sole purpose** of this **new device installation** is **not** to prevent, control, or
 (1)(a) reduce a substantial quantity of **hazardous waste** because it is not used exclusively
 for pollution control. The facility was installed to meet the requirements of the
 Uniform Fire Code for storage of hazardous materials. The Uniform Fire Code,
 Article 80, Section 8003.1.3.2 requires secondary containment and liquid tight
 floors for hazardous material storage.

Timeliness of Application

The application was submitted within
 the timing requirements of ORS
 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>7/21/97</u> |
| <i>Application Substantially Complete</i> | <u>10/7/99</u> |
| <i>Construction Started</i> | <u>7/1/95</u> |
| <i>Construction Completed</i> | <u>2/15/97</u> |
| <i>Facility Placed into Operation</i> | <u>1/1/97</u> |

Facility Cost

| | |
|-------------------------|-------------------|
| Claimed Facility Cost | \$407,722 |
| Non-allowable Costs | <u>-\$407,722</u> |
| Allowable Facility Cost | 0 |

Van Beek and Company provided the certified public accountant's statement.

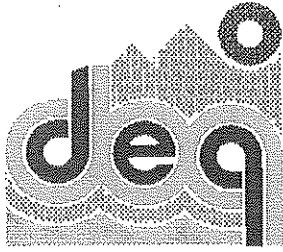
Facility Cost Allocable to Pollution Control

The facility is not eligible, therefore the facility cost allocable is 0%.

Compliance

DEQ permits issued to facility: Air Quality Permit, 34-005 (ACDP).

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers
 Dennis Cartier, Associate, SJO Consulting Engineers
 Maggie Vandehey, DEQ



Director's
Recommendation: **DENY – Ineligible Facility**

| | |
|-------------------------------------|----------------------------|
| Applicant | Sabroso Corporation |
| Application No. | 5197 |
| <u>Claimed Facility Cost</u> | \$32,062 |
| <u>Claimed Percentage Allocable</u> | 100% |
| Useful Life | 7 years |

Tax Credit Review Report

EQC 9911

Pollution Control Facility: Solid Waste/Water Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **an S corporation**

Business: **Food Processor**

Taxpayer ID: **93-0476694**

The applicant's address is:

PO Box 129

Medford, OR 97501

Facility Identification

The facility is identified as:

**One Tennant floor sweeper/scrubber model
8200 serial #8200-6029 to remove debris from
floors & outside operations lots**

The applicant is the owner of the facility located
at:

**690 S Grape Street
Medford, OR 97501**

Technical Information

This sweeper is used to collect debris (fruit juice, wood particles, dirt, etc.) from the floors and outside operations lot. The applicant stated that this activity prevents the debris from entering the storm sewer system and reduces the potential for this material to contaminate or mix with wastewater leaving the facility. The sweeper is used during the processing season and the sweepings are disposed of in the landfill, sanitary sewer or through land application.

Eligibility

ORS 468.155 The Department determined that the **purpose, principal or sole**, of the **equipment** is
(1)(a) **not** to prevent, control or reduce **air pollution** as defined in ORS 468A.005.

"Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to

the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

- ORS 468.155 The applicant claimed the **principal purpose** of this **new sweeper** is to prevent,
 (1)(a) control or reduce water pollution though they claimed it as a solid waste facility.

A control (sweeper) was not required by DEQ or EPA; therefore, the sweeper does not meet the principal purpose portion of the definition of a pollution control facility. The sweeper does not qualify as a sole purpose facility because its exclusive purpose is not pollution control. The applicant and their employees are the main beneficiaries of the clean work environment resulting from the use of the sweeper. The Department considers that the sweeper is part of general maintenance practices required at the site.

- OAR The claimed facility does **not** use a material recovery process, which obtains useful
 468.155 material from material that would otherwise be solid waste as defined in ORS
 (1)(b)(D) 459.005.

- OAR The water pollution control was **not** accomplished by the disposal or
 468.155 elimination of or redesign to eliminate industrial waste and the use of treatment
 (1)(b)(A) works for industrial waste as defined in ORS 468B.005;

"Treatment works" means any plant or other works used for the purpose of treating, stabilizing or holding wastes.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|-------------------|
| <i>Application Received</i> | <u>05/03/1999</u> |
| <i>Application Substantially Complete</i> | <u>05/18/1999</u> |
| <i>Construction Started</i> | <u>05/01/1998</u> |
| <i>Construction Completed</i> | <u>05/01/1998</u> |
| <i>Facility Placed into Operation</i> | <u>05/01/1998</u> |

Facility Cost

| | | |
|-------------------------|--|-----------------|
| Claimed Facility Cost | | \$32,062 |
| OAR | Non-allowable Costs include | |
| 340-016-0070 (3)(p) | maintenance, operation, or repair of a facility, including spare parts | - \$32,062 |
| Allowable Facility Cost | | <u>0</u> |

The facility cost does not exceed \$50,000. An independent accounting review was not required. The applicant did **not** provide adequate documentation of the cost of the claimed facility.

Facility Cost Allocable to Pollution Control

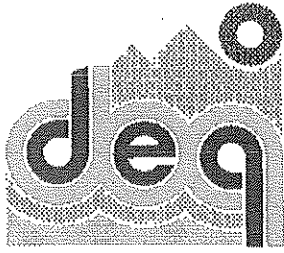
The facility cost does not exceed \$50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Since the facility is does not meet the eligibility requirements, the percentage of the facility cost allocable to pollution control is **0%**.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | No salable or useable commodity. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility is 7 years. No gross annual revenues or savings associated with this facility were reported. |
| ORS 468.190(1)(c) Alternative Methods | No alternative investigated. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders.

Reviewers: William R Bree, DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

Director's
Recommendation: **Deny - Ineligible Facility**

| | |
|------------------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4980 |
| Claimed Facility Cost | \$18,041 |
| Claimed Percentage Allocable | 100% |
| Useful Life | 7 years |

**Pollution Control Facility: Air
Final Certification**
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation and is operating a **sawmill**. The taxpayer's identification number is 93-0312940 and their address is:

**1300 SW Fifth Avenue
Suite 3800
Portland, OR 97201**

Facility Identification

The claimed facility is:

A Bobcat front-end loader.

The applicant is the **owner** of the facility located at:

**550 NE Skipanon Drive
Warrenton, OR 97146**

Technical Information

The claimed facility is a new Bobcat front-end loader, model 753C series equipped with a utility bucket, purchased to reduce fugitive wood particulate from all areas of the plant site including the sawmill area, log decks and barker.

Eligibility

ORS 468.155 (1)(a) The applicant claimed the **principal purpose** of this facility is to comply with ACDP requirements as set forth by the DEQ. They claimed the new requirements specify that in order to reduce particulate, wood waste must be picked up within 24 hours. The applicant has been operating under an Oregon Title V Operating Permit issued 01/10/96, and modified 06/10/96 and 12/02/98. The Title V Operating Permit does not contain conditions that require wood waste to be picked up. DEQ and EPA regulations do not include requirements for removal of wood wastes from the ground of the plant site. Therefore, this new equipment does not meet the principal purpose test.

The applicant also claimed that the **sole purpose** of the facility is pollution control (i.e., to reduce airborne particulates). The **sole** and "exclusive" **purpose** of the **new equipment** is not to prevent, control or reduce a **substantial quantity of air pollution**. As defined in ORS 468A.005:

"Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

The bobcat with a utility bucket is used for things other than removal of particulate matter from the **atmosphere** (airborne or potentially airborne particulate, external to buildings). The facility is not used "exclusively" for pollution control, and therefore is not eligible under the sole purpose test.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>4/2/98</u> |
| <i>Application Substantially Complete</i> | <u>5/29/98</u> |
| <i>Construction Started</i> | <u>6/30/97</u> |
| <i>Construction Completed</i> | <u>6/30/97</u> |
| <i>Facility Placed into Operation</i> | <u>6/30/97</u> |

Facility Cost

| | |
|-------------------------|------------------|
| Claimed Facility Cost | \$18,041 |
| Non-allowable Costs | <u>-\$18,041</u> |
| Allowable Facility Cost | \$ 0 |

The claimed facility cost is not allowable because the claimed facility does not meet either the principal or sole purpose eligibility according to OAR 340-016-0060(2).

The facility cost does not exceed \$50,000 and therefore, an external accounting review was not required.

Facility Cost Allocable to Pollution Control

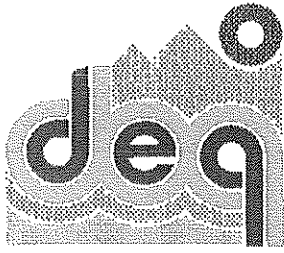
According to ORS 468.190 (3), the facility cost does not exceed \$50,000 and therefore, the only factor used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. The applicant claimed the facility is used 100% of time for pollution control.

Compliance

A review of the facility's Air Source File indicates that this facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to facility include: Title V Operating Permit No. 04-0041 and Storm Water permit No. 1200-Z

Reviewers: Dave Kauth, DEQ
Maggie Vandehey, DEQ



Tax Credit Review Report

EOC 9911

Pollution Control Facility: Air Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation operating as a softwood veneer and plywood manufacturer and planing mill. The applicant's taxpayer identification number is 93-0312940 and their address is:

**Dalles Division
1300 SW Fifth Ave., Suite 3800
Portland, OR 97201**

Director's
Recommendation: **DENY – Ineligible Facility**

| | |
|-------------------------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 5167 |
| <u>Claimed</u> Facility Cost | \$38,267 |
| <u>Claimed</u> Percentage Allocable | 100% |
| Useful Life | 7 years |

Facility Identification

The certificate will identify the facility as:

**One 1991 Pelican three-wheel sweeper, s/n
P715D**

The applicant is the owner of the facility located at:

**1551 S.E. Lyle Street
Dallas, OR 97338**

Technical Information

The claimed facility consists of a 1991 Pelican three-wheel sweeper, s/n P715D, which is used to clean the vehicular areas of the plant site. The applicant claims the sweeper allows a continuous schedule of dust and debris removal as well as immediate clean-up after emptying bins. The applicant also claims the volume of airborne fugitives and contamination of stormwater runoff has been minimized.

Eligibility

ORS 468.155 The Department determined that the **purpose, principal or sole**, of the **equipment** is
(1) **not** to prevent, control or reduce **air pollution** as defined in ORS 468A.005.

"Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

The purpose of the sweeper is to provide a clean work environment with the main beneficiary being the applicant and their employees. The Department considers that the sweeper is used as part of general maintenance practices required at the site. The continuous schedule of sweeping minimizes the volume of wood particulate within and around the plant.

ORS 468.155 (1)(a) Additionally, the applicant claims the **principal** or primary **purpose** of the sweeper is to control air pollution because their new permit requires that road dust and debris not be allowed to accumulate on the property or to leave the property. The applicant claims their previous ACDP allowed for periodic sweeping, however, road dust and debris accumulated between sweepings.

The Title V permit, page 5 of 28, section 4, states that reasonable precautions must be taken to "prevent particulate matter from becoming airborne in accordance with OAR 340-021-0060 (2) including the following: 4.a. Treating and/or cleaning vehicular areas of the plant site under the control of the permittee as needed." OAR 340-021-0060 (2) does not specifically reference to the use of a sweeper.

OAR 468.155 (1)(b)(A) When considering the claimed facility as a water pollution control facility, the Department determined that the water pollution control was **not** accomplished by the disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005;

"Treatment works" means any plant or other works used for the purpose of treating, stabilizing or holding wastes.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

| | |
|---|----------------|
| <i>Application Received</i> | <u>2/25/99</u> |
| <i>Application Substantially Complete</i> | <u>7/19/99</u> |
| <i>Construction Started</i> | <u>5/21/98</u> |
| <i>Construction Completed</i> | <u>5/31/98</u> |
| <i>Facility Placed into Operation</i> | <u>5/31/98</u> |

Facility Cost

| | |
|--|-------------|
| Facility Cost | \$ 38,267 |
| OAR 340-016-0070 (3)(p) Non-allowable Costs include maintenance, operation, or repair of a facility, including spare parts | - \$32,062 |
| Allowable Facility Cost | <u>\$ 0</u> |

Facility Cost Allocable to Pollution Control

According to ORS.190 (3), the only factor that would have been used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. Since the facility is ineligible, the facility cost is zero percent allocable to pollution control.

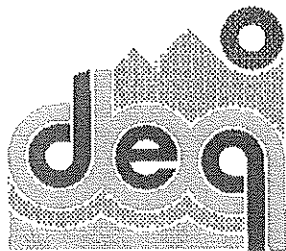
Compliance

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to the Willamette Industries Dallas Division site: Title V permit #27-0177, issued 10/1/98; NPDES 1200-Z issued 11/17/97.

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ

Attachment D

Rejections



Tax Credit Review Report

EQC 9911

Department Action **Rejected - Untimely Response**

| | |
|-------------------------------------|------------------------------------|
| Applicant | Willamette Industries, Inc. |
| Application No. | 4800 |
| <u>Claimed</u> Facility Cost | \$110,418 |
| <u>Claimed</u> Percentage Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility: AIR

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C corporation that operates a particleboard manufacturing plant. Their taxpayer identification number is 93-0312940 and their address is:

**Duraflake Division
1300 S.W. Fifth Avenue, Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

Negative air and screening system

The applicant is the owner of the facility located at:

**2550 Old Salem Road NE
Albany, OR 97321**

Technical Information

This application is for an 80,000 cfm negative air and screening system installed to capture emissions at the truck doorway in the truck dump area. The system consists of a 10' x 42' air hood and a negative air knife, and ducting. The system is installed above the extended door opening and the duct routes the dusty air from the air hood to the inlet of the #1 and #2 green refiners. The system includes two Siemens 200 Hp fan motors installed to handle the increased load on the fan system.

This system reduces fugitive emissions that would otherwise be released into the atmosphere by approximately 50%. The exact quantity of particulate has not been measured; the estimate is based on the expected performance of the system.

This is an effective system design for capturing fugitive emissions.

Eligibility

- ORS 468.155 The **principal purpose of this new equipment and installation** is to prevent,
 (1)(a) control or reduce a substantial quantity of air pollution.
 Mutual Agreement and Order No. AQP-WR-94-331 between the DEQ and
 Willamette Industries required this system be operational on or before March 1,
 1996.
- ORS 468.155 The disposal or elimination of or redesign to eliminate air contamination sources
 (1)(b)(B) and the use of air cleaning devices as defined in ORS 468A.005

Timeliness of Application

The application was submitted within
 the timing requirements of ORS
 468.165 (6).

| | |
|---|-----------------------------|
| <i>Application Received</i> | <u>7/21/97</u> |
| <i>Additional Information Requested</i> | <u>10/13/97</u> |
| <i>Additional Information Provided</i> | <u>6/5/98</u> |
| <i>Application Substantially Complete</i> | <u> </u> |
| <i>Construction Started</i> | <u>5/1/95</u> |
| <i>Construction Completed</i> | <u>10/31/95</u> |
| <i>Facility Placed into Operation</i> | <u>10/31/95</u> |

The applicant did not respond to the
 reviewer's request for additional
 information by April 11, 1998. The
 applicant had 180 days from the date
 the information was requested to
 submit additional information. The
 applicant did not request in writing additional time to submit the information.

Facility Cost

| | |
|-------------------------|---------------------|
| Claimed Facility Cost | \$ 110,418 |
| Non-allowable Costs | <u>(\$ 110,418)</u> |
| Allowable Facility Cost | \$0 |

Copies of invoices were provided which substantiated most of the cost of the facility. Invoices were not provided for site preparation/installation (\$2,774) and for electrical materials and installation (\$1,994). KPMG Peat Marwick LLP provided the certified public accountant's statement.

Facility Cost Allocable to Pollution Control

According to ORS 468.190(1), the facility cost exceeds \$50,000 and therefore, the following factors were used to determine the percentage of the facility cost allocable to pollution control.

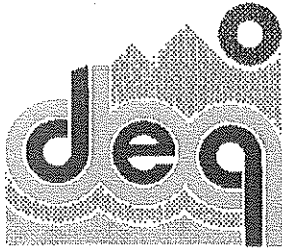
| Factor | Applied to This Facility |
|--|---|
| ORS 468.190(1)(a) Salable or Usable Commodity | The applicant does not receive income from the captured emissions, it reduces their loss of product. |
| ORS 468.190(1)(b) Return on Investment | The useful life of the facility used for the return on investment consideration is 7 years. No gross annual revenues are associated with this facility. |
| ORS 468.190(1)(c) Alternative Methods | No other alternatives were considered. |
| ORS 468.190(1)(d) Savings or Increase in Costs | There are no savings or increase in costs from the facility. |
| ORS 468.190(1)(e) Other Relevant Factors | The duct system is located outdoors; it is not part of a ventilation system. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance/Other Tax Credits

The facility complies with Department statutes and permit requirements. DEQ permits issued to facility: NPDES No. 100668, May 4, 1990.

Reviewers: Lois L. Payne, SJO Consulting Engineers, Inc.
Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ



Tax Credit Review Report

EQC 9911

| | |
|----------------------------|-----------------------------------|
| Director's Recommendation: | REJECT |
| | Untimely Submittal |
| Applicant | Willamette Industries, Inc |
| Application No. | 4570 |
| Claimed Facility Cost | \$2,596,818 |
| Claimed % Allocable | 100% |
| Useful Life | 7 years |

Pollution Control Facility Tax Credit: Solid Waste Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

The applicant is a C Corporation, a **manufacture of linerboard and bagpaper**.
The taxpayer's identification number 93-0312940.

The applicant's address is:

**3800 First Interstate Tower
Portland, OR 97201**

Facility Identification

The facility is identified as:

Ebterprise Baler (Model 16-ezrrb-200), Kraus Baler Conveyor (93KRACONV0050) Krause Sorting Conveyer (93KRACONV0050), Michigan Wheel Loader (SN L-70v61201), Mitsubishi 6Mlb Fork Trk (SNAF89A-00546), Mitsubishi 6Mlb Fork Trk(SNAF89A-00529), etc.

The claimed facility is **owned** by the applicant, Willamette Industries, Inc. and leased to an independent facility operator, Far West Fibers.
The facility is located at:

**12820 NE Marx Street
Portland, OR 97230**

Technical Information

The facility is a wastepaper collection, processing and storage facility which consists of a 50,000 square foot building including receiving, and sorting areas, sorting conveyor system, baler, baler feed conveyor system, storage area for baled material, eight space truck loading dock, and miscellaneous material handling and processing equipment.

Eligibility

- ORS 468.155 (1)(a) The **sole purpose** of this **new building, machinery and equipment** is to prevent, control or reduce a substantial quantity of solid waste.
- ORS 468.155 (1)(b)(D) The facility provides a material recovery process which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.

Timeliness of Application

The application was not submitted within the timing requirements of ORS 468.165 (6). Far West Fibers, an independent recycling company, began operating the facility on September 27, 1993, over three months before the lease was signed. The Department considers September 27, 1993 as the date construction was completed.

| | |
|---|-------------------|
| <i>Application Received</i> | <u>12/26/1995</u> |
| <i>Application Substantially Complete</i> | <u>10/12/1997</u> |
| <i>Construction Started</i> | <u>05/01/1993</u> |
| <i>Construction Completed</i> | <u>9/27/1993</u> |
| <i>Facility Placed into Operation</i> | <u>9/27/1993</u> |

The applicant claims the date of substantial completion of the facility is January 1, 1994, the date the lease was signed. The applicant claims that as the lessor of the facility and the fact that there was no lease between the independent recycling company and the applicant until January 1, 1994, the date of substantial completion of the facility should be determined to be the effective date of the lease. This date is within two years after construction of the facility was substantially completed and the application would have been submitted in a timely manner.

Facility Cost

| | |
|-------------------------|---------------|
| Claimed Facility Cost | \$2,596,818 |
| Non-allowable Costs | - \$2,596,818 |
| Allowable Facility Cost | <u>\$0</u> |

Facility Cost Allocable to Pollution Control

The facility as claimed on the application does not meet the definition of a facility integral to operation of the applicant business based on the four factors listed in OAR 340-16-030(1)(g).

According to ORS.190 (1), the following factors were used to determine the percentage of the facility cost allocable to pollution control.

| Factor | Applied to This Facility |
|--|--|
| ORS 468.190(1)(a) Salable or Usable Commodity | The facility is used exclusively to process recyclable material. The percent allocable by using this factor is 100%. |
| ORS 468.190(1)(b) Return on Investment | <p>The useful life of the facility is 7 years. Since the facility lease is for 20 years and the use of the facility to the applicant is as a leased property the Department recommends that the useful life of the facility be set at 20 years. However, the lease payments from the claimed facility do not have a significant impact on the income of the applicant's business.</p> <p>The average annual cash flow for the facility is determined by the fixed rate in the facility lease. The average annual income from this lease is \$135,000. The lease payment includes office and other space not included in the claimed facility. The portion of the lease payment allocable to the claimed facility is correctly stated as 93% or \$125,550. This cash flow and the claimed facility cost result in a return on investment factor of 20.68. By using Table 1 in OAR 340, Division 16, a \$2,596,818 facility with a useful life of 20 years and an average annual cash flow of \$125,550 results in a return on investment of 0%; therefore 100% of the facility cost is properly allocable to pollution control.</p> |
| ORS 468.190(1)(c) Alternative Methods | The applicant considered other methods for reducing solid waste and determined that this method was environmentally acceptable and economically feasible. It is the Department's determination that the claimed facility is an acceptable method of achieving the material recovery objective. |
| ORS 468.190(1)(d) Savings or Increase in Costs | No savings or increase in costs. Material generated from this facility is sold to the applicant or other users at fair market value. |
| ORS 468.190(1)(e) Other Relevant Factors | No other relevant factors. |

Considering these factors, the percentage allocable to pollution control is 100%.

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.

Reviewers: William R Bree, DEQ
M.C.Vandehey, DEQ

Attachment E
Topic Discussion

TOPIC

DISCUSSION:

Construction Completed and Placed in Service

This guidance document expresses the Department's interpretation of statute.

A facility is ineligible for tax credit certification if the Oregon taxpayer fails to file a final Pollution Control Facility Tax Credit Application "within two years after construction of the facility is substantially completed." This topic discussion is intended to clarify how the Department determines if an applicant filed their application in a timely manner.

Problem The exact date when a facility is completed is frequently debated. About 22% of the applications over \$500,000 are submitted within a week of the two-year deadline.

ORS The application shall be submitted after construction of the facility is substantially completed and the facility is placed in service and within two years after construction of the facility is substantially completed. Failure to file a timely application shall make the facility ineligible for tax credit certification. ...

ORS 468.165(6)

Discussion ORS 468.165 appears to separate the terms "substantially completed" and "placed in service." There is a definition in rule for "substantially completed" but not "placed in service." The OAR definition of "substantially completed" and the IRS definition of "placed in service" have the same meaning.

**OAR
Definition** **Substantial Completion**
... "means the completion of the erection, installation, modification, or construction of all elements of the claimed facility which are essential to perform its purpose. "

OAR340-016-0010 (11)

IRS Placed in Service

Definition The Department relies on the IRS definition of "placed in service."

"The IRS considers an asset "placed in service" when it is in a condition or state of readiness and availability for its assigned function,¹ it is not essential that the asset be put into actual use."

OAR Application Procedures

Application for Final Certification. The applicant shall submit all information, exhibits and substantiating documents requested on the application for final certification. The Department shall reject the application for final certification if the applicant fails to submit the application:

- (a) After the construction of the facility is substantially complete and the facility is placed in service;
- (b) Within two years after construction of the facility is substantially completed; and
- (c) On or before December 31, 2003.

OAR 340-016-0055(2)

Internal Revenue Service Code and Guidance

To determine if an application was filed in a timely manner, the Department relies on examples given in the federal Internal Revenue Service Code and guidance materials. The Department recognizes that "place in service" is tied to depreciation under the IRS Code. Nonetheless, the definition and examples provide the reviewers and program representatives with guidelines for filing an application in a timely manner.

The following examples are taken from an excerpt of the BNA tax research database treatise on tax depreciation --"Beginning of Depreciation Period"

- The taxpayer could begin depreciating a barge completely outfitted and available for use in December, even though the barge was locked in ice and not put to use until May of the following year.⁴
- A factory building constructed to house machinery could be considered placed in service and ready for use upon completion, even before installation of the machinery.⁵

¹ BNA tax research database, treatise on tax depreciation --"Beginning of Depreciation Period" 250 Rev. Rul. 76-238, 1976-1 C.B. 55.

² Ibid. 249 Regs. Section 1.167(a)-10(b)

³ Ibid. 250 Rev. Rul. 76-238, 1976-1 C.B. 55.

⁴ Ibid. 251 *Sears Oil Co., Inc. v. Comr.*, 359 F.2d 191 (2d Cir. 1966). See also *SMC Corp. v. U.S.*, 675 F.2d 113 (6th Cir. 1982), holding that a fully-operational crane and shredder installed by a taxpayer had been placed in service even though a utility company had not yet completed the electrical lines needed to power the equipment.

⁵ Ibid. 252 Rev. Rul. 76-238, 1976-1 C.B. 55.

- Machinery and equipment were considered placed in service when the production line became operational, even though further testing was necessary to attain planned production levels.⁶
- An electric transmission line, however, was not placed in service and ready to perform until substations were built to transmit and receive power over the line.⁷
- If an asset like a building is constructed in segments, each segment may be depreciated from the date it is available for use.⁸
- When machinery and equipment are placed in service, standby replacement parts may also be depreciated.⁹
- Even when an asset is ready to use, depreciation is unavailable until the taxpayer begins the trade, business, or income producing activity for which the asset is intended.¹⁰ For example, in *Piggly Wiggly Southern, Inc. v. Comr.*,¹¹ the Tax Court ruled that equipment acquired for new or relocated grocery convenience stores had not been placed in service until the stores were open for business. However, equipment installed in existing stores was deemed to have been placed in service even though these stores were under renovation and closed for one day after renovation, reopening afterward for a promotional "opening."
- Property purchased for lease to others is generally considered placed in service on date of purchase, provided the property is then available for use. In *Waddell v. Comr.*,¹² the Tax Court stated that property held for lease to others is placed in service when the property is first offered for lease. The court found that certain equipment was "placed in service" when purchased because the taxpayers executed distribution agreements simultaneously with the purchase showing that the equipment was actually available for use from that point forward. The court reached this conclusion even though the equipment was not actually leased until more than a year later, (although a nominal "demonstration fee" was paid for the equipment during the period between purchase and lease).

⁶ Ibid. 253 Id.; PLR 8137122.

⁷ Ibid. 254 Rev. Rul. 73-518, 1973-2 C.B. 54.

⁸ Ibid. 255 *Livingston v. Comr.*, T.C. Memo 1966-49.

⁹ Ibid. 256 Rev. Rul. 81-185, 1981-2 C.B. 59.

¹⁰ Ibid. 257 *Nulex, Inc. v. Comr.*, 30 T.C. 769 (1958), acq., 1959-1 C.B. 4.

¹¹ Ibid. 258 84 T.C. 739 (1985).

¹² Ibid. 259 86 T.C. 848 (1986), aff'd on other issues, 841 F.2d 264 (9th Cir. 1988). See also *Cooper v. Comr.*, 88 T.C. 84 (1987).

The following information is from IRS Document Rev. Rul. 76-238, 1976-1 C.B. 55.


- Depreciation; "first placed in service." A building, constructed to house manufacturing facilities, was placed in service for depreciation purposes on the date its construction was completed and available for installation of machinery and equipment; machinery, installed therein over a period of months, was placed in service when the entire production line was available for the production of an acceptable product.
- 26 CFR 1.167(a)-10: When depreciation deduction is allowable. Advice has been requested as to the proper "placed in service" dates within the meaning of section 1.167(a)-10(b) of the Income Tax Regulations for the purpose of depreciating a building constructed to house manufacturing facilities and the individual items of production machinery and equipment that are to be housed within the building, under the circumstances described below.
 - On July 31, 1972, the taxpayer completed construction of a building for a new manufacturing plant. Installation of the machinery and equipment to be housed within the new factory building commenced on that date. At that time, the taxpayer was already engaged in the manufacture and sale of the same product in another state.
 - Phase I of the overall plan called for the installation of machinery and equipment used in the production line process from the point of raw material receiving through the forming lines. Installation of both the mechanical and electrical portions of such machinery and equipment was completed during December 1972. From January to March 1973 such equipment was operated on a test basis for purposes of shakedown and training. No saleable product was produced during the Phase I period; however, the Phase I production was to be utilized only in the production line process installed under Phase II of the overall plan.
 - Phase II called for the installation of a finishing line and its support equipment. Installation of both the mechanical and electrical operational portions of such machinery and equipment was complete on March 1, 1973, and the machinery and equipment became operational on March 26, 1973. During the period from March 26 to June 30, 1973, the entire production line, that is equipment installed under both Phase I and Phase II, was in operation in a series of test runs designed to increase production levels and improve the quality of the product.
 - The taxpayer did not elect to adopt the provisions of section 1.167(a)-11 of the regulations and has consistently followed a practice of commencing depreciation in the month following the month when the property is placed in service.
- Section 1.167(a)-10(b) of the regulations provides, in part, that the period for depreciation of an asset shall begin when the asset is placed in service. A proportionate part of one year's depreciation is allowable for that part of the first and last year during which the asset is in service.

- An asset is considered to be placed in service when it is in a condition or state of readiness and availability. In the case of *Raymond A. Biggs*, 27 CCH Tax Ct. Mem. 1177 (1968), aff'd, 440 F.2d 1 (6th Cir. 1971), the taxpayer claimed depreciation on a building for the year 1951; the court disallowed the depreciation claim because the building was not reconstructed and available for the taxpayer's use until April 1952.
- In *Sears Oil Co., Inc. v. Commissioner*, 359 F.2d 191 (2d Cir. 1966), the court found that the useful life of barges began when they were ready for service instead of when they were first put in use. The barges were completed and available for use by December 1, 1957, but were not put into actual use until May 1958 when ice which had entrapped the barges melted.
- In the case of *Duvin Coal Co.*, 16 B.T.A. 194 (1929), the court held that "under ordinary circumstances, depreciation does not start until the equipment has actually been installed and is ready for operation."
- Accordingly, in the instant case, the taxpayer's factory building was placed in service for depreciation purposes on July 31, 1972, the date on which construction of the building was completed and installation of the machinery and equipment to be housed therein had commenced. On that date, the building was in a condition or state of readiness and availability to perform the function for which it was built.
- Further, the individual units of production machinery and equipment acquired by the taxpayer for use in the factory building were placed in service on March 26, 1973, when installation of the entire production line, including Phase I and Phase II, was completed. On this date, the line was available for the production of an acceptable product, notwithstanding later testing to eliminate defects which prevented attainment of planned production levels or the meeting of acceptable quality control parameters.

State of Oregon
Department of Environmental Quality

Memorandum

Date: November 19, 1999

To: Environmental Quality Commission
From: Langdon Marsh, Director 
Subject: Agenda Item C, EQC Meeting, November 19, 1999
Information Update: General Air Contaminant Discharge Permits

Statement of Purpose

In August, 1998 the Commission adopted a rule that allowed the Department to issue General Air Contaminant Discharge Permits (ACDPs). At that time, the Commission asked for an update on general permits in about a year. In particular, the Commission asked for a list of facilities that were assigned to general permits.

Background

Until recently, ACDP's were only issued individually for each facility subject to the program. Issuing individual permits for facilities that have different requirements makes sense, but it is not efficient when a number of facilities are subject to the same requirements. The rule adopted by the EQC in August, 1998 gave the Department the option of issuing general ACDP's for an entire source category, with individual facilities subsequently assigned to the permit. Public notice is not provided when facilities are assigned to a general ACDP; this is because notice is provided at the time of issuing the permit, and the permit does not change at the time of facility assignment. A list of assigned facilities is available for public review.

Update

To date, general ACDP's have been developed for two source categories: chrome platers and halogenated solvent degreaser facilities. Fifteen facilities have been assigned to the chrome plater permit and six facilities have been assigned to the solvent degreaser permit (see Attachment A for a listing of assigned facilities). When these general permits were on public notice, no comments or requests for hearings were received. In addition, the Department has not received any requests for information about what facilities are assigned to a general ACDP, nor have any complaints about sources assigned to general ACDP's or the general ACDP process been received.

Update (continued)

The Department's experience in issuing general ACDP's has been favorable as far as it being an efficient permit tool. The Department is continuing to examine efficiency opportunities that exist in the ACDP program, which may include expanding the use of general permits to other source categories, for both low and higher emitting facilities. Issuing general permits to higher emitting sources would require a rule amendment.

Attachments

Attachment A: Sources Assigned to General ACDP's

Approved:

Section Manager:

Division Administrator:

Report Prepared by: Kathleen Craig

Phone: (503) 229-6833

Date Prepared: 10-4-99

gpupdate.doc

Attachment A

Sources Assigned to General Air Contaminant Discharge Permits

Chrome platers

| | <u>Permit #</u> | <u>Facility address</u> |
|---------------------------------|-----------------|--------------------------------|
| Portland-area | | |
| 1. Surgichrome, Inc. | 03-0013 | 16569 SE 115 th St. |
| 2. Carlton Company | 03-0026 | 3901 SE Naef Rd. |
| 3. Technical Finishes & Coating | 03-0027 | 9120 SE 64 th Ave. |
| 4. Excello Products | 03-2728 | 8710 SE 76 th Dr. |
| 5. Precision Equipment, Inc. | 26-0051 | 8440 N. Kerby St. |
| 6. Leininger Portland Plating | 26-0057 | 627 SE Division Pl |
| 7. Columbia American Plating | 26-2809 | 3003 NW 35 th Ave. |
| 8. Superior Metal Finishing | 34-0036 | 18240 SW 100 th Ct. |
| 9. ImageX.com, Inc. | 34-0039 | 10955 SW Avery St. |

(For more information, contact Johnny Baumgartner: 503-229-5545)

Bend-area

| | | |
|-----------------------------|---------|-------------------------|
| 1. Bend Plating, Inc. | 09-0012 | 550 SE Bridgeford Blvd. |
| 2. Luhr Jensen & Sons, Inc. | 14-0001 | 400 Parkway Ave. |

(For more information, contact Bonnie Hough: 541-388-6146 x223)

Medford-area

| | | |
|--------------------|---------|------------------|
| 1. Medford Plating | 15-0032 | 702 S. Grape St. |
|--------------------|---------|------------------|

(For more information, contact Patti Hamman: 503-378-8240 x225)

Salem-area

| | | |
|------------------------------|---------|------------------------|
| 1. Albany Industrial Machine | 22-0300 | 1495 Industrial Way SW |
| 2. Cruisin Classics | 27-0002 | 2655 Dallas Hwy NW |
| 3. Capital Chrome | 24-0025 | 1520 Hickory St. |

(For more information, contact Patti Hamman: 503-378-8240 x225)

Sources Assigned to General Air Contaminant Discharge Permits (cont'd)

Permit # Facility address

Degreasers

Portland-area

| | | |
|---|---------|--------------------------------|
| 1. VisPro Corporation | 34-0008 | 13465 SW Karl Braun Dr. |
| 2. Leupold & Stevens, Inc. | 34-0040 | 14400 NW Greenbrier Pkwy |
| 3. Metal Polishing by Timothy, Inc. | 26-0063 | 4415 NE 148 th Ave. |
| 4. PECO Manufacturing Co., Inc. | 26-0066 | 4707 SE 17 th Ave. |
| 5. West Coast Wire Rope & Rigging, Inc. | 26-0067 | 2900 NW 29 th Ave. |
| 6. Electrochem Metal Finishing, Inc. | 26-0065 | 4849 SE 26 th |

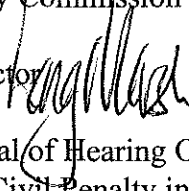
(For more information, contact Johnny Baumgartner: 503-229-5545)

gpupdatelist.doc

State of Oregon
Department of Environmental Quality

Memorandum

Date: November 1, 1999

To: Environmental Quality Commission
From: Langdon Marsh, Director 
Subject: Agenda Item D, Appeal of Hearing Order Regarding Assessment of Civil Penalty and Order Assessing Civil Penalty in the Matter of Cascade General, Case No. HW-NWR-97-176, EQC Meeting: November 19, 1999

Statement of Purpose

Both the Department and Cascade General appealed from the Hearing Order Regarding Assessment of Civil Penalty, dated June 7, 1998. The Order found Cascade General liable for a civil penalty in the amount of \$7,800 for failure to properly manifest hazardous waste transported for disposal. The Order also found that Cascade General was not liable for a civil penalty for failure to make a hazardous waste determination.

Background

The Findings of Fact made by the hearing officer are summarized as follows:

Cascade General entered into a contract with the U.S. Navy to prepare a vessel for storage which required Cascade General to drain all the engine oil and replace it with a corrosive preventive compound named Tectyl. The contract required Cascade General to retain the Tectyl for reuse.

After flushing the vessel's engines in April 1996, Cascade General contacted Oil Re-Refining Co. regarding accepting the Tectyl. At that time Cascade General had drums of both used and unused Tectyl. Cascade General provided to Oil Re-Refining both the Material Safety Data Sheets and the results of independent tests it had completed. The safety data sheets indicated a flashpoint of 106 degrees Fahrenheit and the lab results indicated a flashpoint of 85 degrees Fahrenheit. The independent tests also showed no violation of metal concentrations. No other tests for hazardous waste factors were performed. The low flashpoint is a characteristic which means it is a hazardous waste. Oil Re-Refining accepted the Tectyl, added it to 600 gallons of used oil, and then transported it to Fuel Processors for treatment so it could be burned.

In June 1997, the Department performed a review of Fuel Processor's records and discovered that Cascade had transported the used Tectyl without preparing a Hazardous Waste Manifest. The Department believed that a manifest was required based on the low flashpoint.

A Notice of Assessment of Civil Penalty was issued on November 18, 1997 which found Cascade General liable for two civil penalties. The first, in the amount of \$4,500 was for failure

Memo To: Environmental Quality Commission

Agenda Item D, Appeal of Hearing Order Regarding Assessment of Civil Penalty and Order Assessing Civil Penalty in the Matter of Cascade General, Case No. HW-NWR-97-176, EQC Meeting: November 19, 1999

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to make a hazardous waste determination. The second, in the amount of \$10,000 was for the failure to properly manifest hazardous waste transported for disposal. Included in the latter penalty was an economic benefit assessment of \$3,475 which is the savings that Cascade General realized by treating the Tectyl as used oil instead of a hazardous waste.

On December 15, 1997, Cascade General appealed the Notice and requested a hearing. A hearing was held on January 28, 1999.

The hearing officer held that Cascade General was required to complete a Hazardous Waste Manifest on the Tectyl because the flashpoint made it a hazardous waste. He further concluded that the independent tests that Cascade General had performed on the Tectyl qualified as a Hazardous Waste Determination thus there was no violation. He also held that Tectyl did not meet the definition of used oil and thus was not exempt from the definition of hazardous waste. Cascade General was liable for a civil penalty for the failure to properly manifest the Tectyl transported for disposal.

On July 7, 1999, the Department and Cascade General each filed a timely appeal of the Final Order. The Department took exception to the Order as follows:

- (1) the finding that Cascade General made a 'sufficient hazardous waste determination' on the Tectyl.
- (2) the finding that the civil penalty factor "P" be set at +3 instead of the original +5. The Department presented evidence that Cascade General has four prior class two violation, which according to law is equivalent to two class one violations. Cascade General agreed that there is evidence of four class one violations or their equivalent in the record.

Cascade General took exception to the Order as follows:

- (1) the finding that the used Tectyl product did not meet the criteria for 'used oil' but instead should have been treated and disposed of as a hazardous waste.
- (2) the finding that some of the Tectyl disposed of by Cascade was unused product. Alternatively if some of the disposed Tectyl was unused, that it was properly managed under the used oil requirements.

Cascade General has also requested that the Commission allow additional evidence to be admitted into the record. The additional evidence is an affidavit of Alan Sprott and Job Cost Summary Reports. Cascade General believes that these records support their assertion that the Tectyl that was disposed of, was used prior to disposal. The Department responded that the new evidence is not dispositive of whether all the Tectyl disposed of was used or unused. Furthermore the issue of whether the Tectyl was used or unused was not the determining factor for the conclusion that the Tectyl was not used oil but instead a hazardous waste. The

2

Memo To: Environmental Quality Commission

Agenda Item D, Appeal of Hearing Order Regarding Assessment of Civil Penalty and Order Assessing Civil Penalty in the Matter of Cascade General, Case No. HW-NWR-97-176, EQC Meeting: November 19, 1999

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Department further requested that if Cascade General is permitted to enter the evidence into the record, that the Department be allowed to submit evidence supporting the economic benefit calculation by the Department.

Authority of the Commission with Respect to the Issue

The Commission has the authority to hear this appeal under OAR 340-11-132.

Alternatives

Motion to Present New Evidence:

If the Commission determines that it should grant Cascade General's request to admit additional evidence into the record, the evidence can be heard by either the Commission itself or the matter can be remanded to the hearing officer for additional proceedings. The Department has also requested that if Cascade General is allowed to admit additional evidence, that information the Department presented to the hearing officer but which was not allowed into the record, also be considered by the Commission.

Appeal of Final Order:

The Commission can:

- (1) As requested by Cascade General, reverse that portion of the Order which held that the Tectyl disposed of by Cascade General was not used oil and find that Cascade General was not liable for a civil penalty for failure to properly manifest a hazardous waste.
- (2) As requested by the Department, reverse that portion of the Order that held that Cascade General made a 'sufficient hazardous waste determination' on the Tectyls and determine that Cascade General is liable for a second civil penalty in the amount of \$4500. Furthermore, if the Commission accepts the Department's additional evidence, the Department has requested that the Commission reverse that portion of the Order that removes the economic benefit portion of the civil penalty.

Both Cascade General and the Department agree that the hearing officer erred by matter of law when he determined that the "Prior Significant Actions" or "P" value of the civil penalty should be reduced to 3 from 5. The Commission can reverse this portion of the Order and find that Exhibits 111 and 112 contains evidence of four prior class two violations which is the equivalent of two class one violations.

Attachments

- A. Letter from Susan Greco, dated October 27, 1999
- B. Department's Cross Answering Brief to Cascade General Inc.'s Cross Appeal Exceptions and Brief, dated October 6, 1999

Memo To: Environmental Quality Commission

Agenda Item D, Appeal of Hearing Order Regarding Assessment of Civil Penalty and Order Assessing Civil Penalty in the Matter of Cascade General, Case No. HW-NWR-97-176, EQC Meeting: November 19, 1999

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- C. Department's Memorandum in Opposition to the Motion of Cascade General Inc.'s to Present Additional Evidence and Department's Reply Brief to Cascade General's Response to Department's Exceptions and Brief, dated September 21, 1999
- D. Letter from Lori Irish Bauman, dated September 7, 1999
- E. Motion of Cascade General, Inc. to Present Additional Evidence and Affidavit of Alan Sprott, dated September 7, 1999
- F. Response to Exceptions and Brief and Cross-Appeal Exceptions and Brief of Cascade General Inc., dated September 7, 1999
- G. Department's Exceptions and Brief, dated August 6, 1999
- H. Letter from Susan Greco, dated July 7, 1999
- I. Notice of Appeal of Cascade General Inc., dated July 6, 1999
- J. Notice of Appeal of the Department, dated July 6, 1999
- K. Hearing Order Regarding Assessment of Civil Penalty and Order Assessing Civil Penalty, dated May 28, 1999
- L. Post Hearing Memorandum of Respondent Cascade General Inc., dated March 16, 1999
- M. Department's Post-Hearing Memorandum, dated February 23, 1999
- N. Pre-Hearing Memorandum of Cascade General Inc., dated January 27, 1999
- O. Request for Hearing, Answer and Request for Informal Discussion, dated December 15, 1997
- P. Notice of Violation, Compliance Order, and Assessment of Civil Penalty, dated November 18, 1997
- Q. Exhibits from Hearing of January 28, 1999
 - A. Notice of Violation, Compliance Order, and Assessment of Civil Penalty
 - B. Request for Hearing, Answer and Request for Informal Discussion
 - C. Notice of Hearing
 - D. Notice of Contested Case Rights and Procedures
 - E. Pre-Hearing Memorandum of Cascade General, Inc.
 - 101. Invoice Number 103020
 - 102. Collector Invoice Number 38055
 - 103. Fax Memorandum from Cascade General, dated May 2, 1996
 - 104. Tectyl Product Information Sheet
 - 105. Material Safety Data Sheet
 - 106. Fax Memorandum from Cascade General, dated May 2, 1996
 - 107. Certificate of Analysis, dated May 8, 1996
 - 108. Certificate of Analysis, dated May 8, 1996
 - 109. Waste/Material Profile
 - 110. Purchase Order No. 007459
 - 111. Notice of Assessment of Civil Penalty, dated January 9, 1996
 - 112. Notice of Assessment of Civil Penalty and Notice of Permit Violation, dated June 18, 1997

Memo To: Environmental Quality Commission

Agenda Item D, Appeal of Hearing Order Regarding Assessment of Civil Penalty and Order
Assessing Civil Penalty in the Matter of Cascade General, Case No. HW-NWR-97-176, EQC
Meeting: November 19, 1999

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113. Letter from Alan Sprott, dated August 4, 1997
114. Tectyl Product Information
115. Valvoline Industrial Products Information
116. Tectyl Product Information (Solventborne)
117. Tectyl Product Information (Oil Film)
118. Tectyl Product Information (Lubricants/Greases)
119. Tectyl Product Information (Corrosion Preventive Compounds)
120. Tectyl Product Information (Initial Fill/Storage Oils)
121. Tectyl Product Information (Transportation-Specific Coatings)
122. Tectyl Product Information (General Rustproofing)
123. Tectyl Product Information (Greases)
125. RCRA/Superfund Hotline Questions and Answers
 1. Various Oregon Administrative Rules and Code of Federal Regulations
 2. Hazardous Waste/Used Oil Flowchart
 3. EPA Publication 'Managing Used Oil'
 4. Notice of Violation, Compliance Order and Assessment of Civil Penalty, dated November 18, 1997
5. Letter from Alan Sprott, dated April 16, 1998
6. Waste/Materials Profile
7. Resume of Ken Patton
8. Material Safety Data Sheet
9. External Standard Report
10. Graphs

Reference Documents (available upon request)

OAR Chapter 340, Division 11, 12, 100 to 110, and 120; Chapter ORS 468 and 466

Report Prepared By: Susan M. Greco

Phone: (503) 229-5213

Date Prepared: November 1, 1999



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

811 SW Sixth Avenue
Portland, OR 97204-1390

(503) 229-5696

TDD (503) 229-6993

October 27, 1999

Via Certified Mail

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland OR 97201-6618

Larry M. Schurr
Department of Environmental Quality
2020 S.W. 4th Avenue
Portland OR 97201

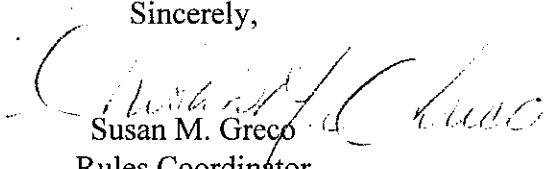
RE: Cascade General, Inc.
Case No. WMC/HW-NWR-97-176

The appeal in the above referenced matter has been set for the regularly scheduled Environmental Quality Commission meeting on Friday, November 19, 1999. The matter will be heard in the regular course of the meeting. The meeting will be held at the Department of Environmental Quality's headquarters, 811 S.W. 6th Avenue, Room 3A in Portland, Oregon. As soon as the agenda and record is available, I will forward the same to you.

Oral arguments by each party will be allowed at the meeting. Each party will be allowed 5 minutes for opening arguments, followed by 5 minutes of rebuttal and 2 minutes for closing arguments.

If you should have any questions or should need special accommodations, please feel free to call me at (503) 229-5213 or (800) 452-4011 ex. 5213 within the state of Oregon.

Sincerely,


Susan M. Greco
Rules Coordinator

Attachment A - 1 page

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

State of Oregon
Department of Environmental Quality
RECEIVED
OCT 06 1999

IN THE MATTER OF:
CASCADE GENERAL, INC.

An Oregon corporation,

Respondent.

OFFICE OF THE DIRECTOR
DEPARTMENT'S CROSS ANSWERING
BRIEF TO CASCADE GENERAL INC.'S
CROSS-APPEAL EXCEPTIONS AND BRIEF

NO. WMC/HW-NWR-97-176
MULTNOMAH COUNTY

ORD 180761934

Pursuant to OAR 340-011-0132(4)(d), the Department of Environmental Quality (Department) hereby files the Department's Cross Answering Brief in response to the Cross-Appeal Exceptions and Brief of Cascade General, Inc.

DEPARTMENT'S RESPONSE TO CASCADE'S EXCEPTION 1

◆ This case is not about "used oil." For all of those reasons already expounded-on in the Department's Post-Hearing Memorandum [beginning on Page 6, Line 17], the Department has shown, beyond a mere preponderance of the evidence, that Cascade's Tectyls were not oils or "used oils." The Hearings Officer agreed.

◆ In Cascade's answer, Cascade never raised an affirmative claim or defense that its Tectyls were "used oils." Pursuant to OAR 340-011-0107(2)(d) and ORS 183.415(10), evidence should not have been taken on the "used oil" issue except as deemed necessary by the Hearings Officer to develop a record which shows a full and fair inquiry into all issues properly before the Hearings Officer. Cascade raised the "used oil" issue only after the affirmative defenses properly raised in Cascade's answer were shown to be without merit.

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Attachment B - 5 pages

1 ◆ The Tectyl products at issue were not marketed as oils by their manufacturer. In
2 fact, the manufacturer specifically distinguishes the "solventborne" Tectyl products at issue
3 in this case from another line of "oil film" Tectyl products [see Hearing Exhibits 116 and 117].
4 Also, the Tectyl products at issue were not purchased for use as oil by Cascade and were
5 not used as oil by Cascade. The Tectyls at issue were marketed, purchased, and used as
6 surface corrosion inhibitors for the protection of metal surfaces of equipment that was to be
7 placed in long-term storage. Cascade speculates that the Tectyl residues on the equipment
8 parts may provide some lubrication of the parts at the time the mothballed equipment is put
9 back into service. Cascade therefore argues that its Tectyls met the definition of "oil."
10 Nothing in the record supports such argument, and the Hearings Officer rightly ruled that
11 any such "lubrication" would be incidental. Regardless, any Tectyl-treated equipment being
12 put back into service would be coated with "cured" Tectyl which has completely different
13 physical and chemical properties than the "raw" Tectyl that is at issue in this case.

14 Solventborne Tectyls, such as used by Cascade, have their corrosion-inhibiting constituents
15 dissolved in solvent, hence the term "solventborne." After application of solventborne Tectyl
16 to a metallic surface, the Tectyl must be allowed to "cure" or "dry" during which time the
17 volatile solvents evaporate [Hearing Exhibits 104 and 105]. It is the presence of the
18 solvents in the "raw" solventborne Tectyls that give those Tectyls their low flash point and
19 make them characteristic ignitable hazardous wastes if "discarded" as defined by rule.

20 ◆ It is curious that Cascade now attempts to disparage the testimony of Rick Volpel,
21 especially since it was Cascade who called Mr. Volpel as Cascade's expert witness on the
22 subject of used oil regulations. Mr. Volpel testified that the solventborne Tectyls at issue
23 were **not** oils or used oils.

24 ◆ Cascade attempts to justify its hazardous waste mismanagement violations on the
25 grounds that Cascade was "recycling" its Tectyls by sending them off for energy recovery.

26 ///

27 ///

1 That argument is also without merit. Cascade could have complied with the law, and still
2 have sent the Tectyls off for energy recovery. Cascade would simply have had to pay a little
3 more to assure that the safeguards mandated by the hazardous waste management
4 regulations were in place. Cascade would have had to complete a hazardous waste
5 determination on the Tectyls to identify all hazards, would have had to prepare a proper
6 manifest, would have had to use a registered hazardous waste transporter, and would have
7 had to send the Tectyls to a permitted hazardous waste management facility. Each of those
8 activities are highly regulated; with the intent being to reduce the threat to public health and
9 the environment that comes from the mismanagement of hazardous waste. Cascade simply
10 traded those mandated safeguards for a cheaper way of getting rid of its Tectyls.

11 DEPARTMENT'S RESPONSE TO CASCADE'S EXCEPTION 2

12 ♦ The issue is moot because the Tectyls at issue were not oils or used oils.
13 ♦ Cascade asserts that there is nothing in the (hearing) record or in the business
14 records of Cascade or Oil Re-Refining that prove conclusively that Cascade actually
15 disposed of seven barrels of unused Tectyl 511M. However, as was argued in the
16 Department's Post-Hearing Memorandum [beginning on Page 7, Line 17] testimony and
17 exhibits in the record do support a strong circumstantial case that such "disposal" occurred.
18 Based on a preponderance of the evidence in the record, the Hearings Officer agreed. The
19 Department has already filed its Memorandum in Opposition to reopening the record to allow
20 the entry of new information referenced by Cascade in its Cross-Appeal Exception 2.
21 ♦ As argued in the Department's Post-Hearing Memorandum [beginning on Page 4,
22 Line 16], Cascade's Tectyls still exhibited the hazardous waste characteristic of ignitability at
23 the time Cascade transferred care, custody, and control to Oil Re-Refining. That fact alone
24 would exclude Cascade from managing its Tectyls under the used_oil/hazardous waste
25 mixture rule. The "ignitability test" performed by Oil Re-Refining at Oil Re-Refining's facility,
26 on a mixture of Cascade's waste Tectyls and other (unknown) waste substances obtained by
27 Oil Re-Refining from one or more other known or unknown sources is completely irrelevant.

Certificate of Service

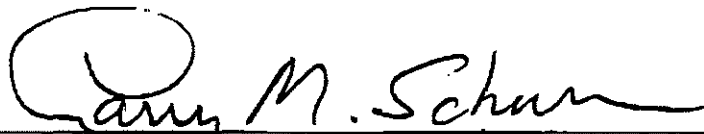
I certify that I served a true and correct copy of the attached DEPARTMENT'S CROSS ANSWERING BRIEF TO CASCADE GENERAL INC.'S CROSS-APPEAL EXCEPTIONS AND BRIEF on each of the following:

Environmental Quality Commission
c/o Susan M. Greco
DEQ Rules Coordinator
811 S.W. Sixth Avenue
Portland, Oregon 97204
(VIA FAX 229-5850)

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(VIA FAX 226-0079)

The Honorable Lawrence S. Smith
Hearings Officer
(VIA FAX 238-5410)

DATED October 6, 1999



Larry M. Schurr
Environmental Law Specialist
Special Investigator
Enforcement Section, DEQ

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

State of Oregon
Department of Environmental Quality

Received
SEP 21 1999

IN THE MATTER OF:
CASCADE GENERAL, INC.
An Oregon corporation,

Respondent.

DEPARTMENT'S MEMORANDUM
IN OPPOSITION TO THE MOTION
OF CASCADE GENERAL, INC.
TO PRESENT ADDITIONAL EVIDENCE

NO. WMC/HW-NWR-97-176
MULTNOMAH COUNTY

ORD 180761934

The Department of Environmental Quality (Department) urges the Commission to deny the motion of Cascade General Inc. (Cascade) to present additional evidence, affidavit, and exhibits in this matter, for the following reasons:

1. Affiant Sprott has no personal knowledge of how Cascade managed the waste Tectyls at issue in this case or the creation of the Exhibits included with Mr. Sprott's affidavit.

2. The Exhibits included with Mr. Sprott's affidavit do not provide any prima facie evidence that new/unused, used, or any Tectyls were used by Cascade after May 2, 1996.

3. Cascade cannot claim "surprise" over the issue of "used" versus "unused" Tectyl. Cascade raised that issue by offering Hearing Exhibit 5, pages 21 and 22, which were purported by Cascade to be an inventory of all Tectyls at Cascade at the end of the *Higgins* project, and which specifically distinguished between unused/new and used Tectyls. The Department simply pointed-out at hearing and in the Department's Post-Hearing Memorandum the substantial discrepancy between the volume of "used" Tectyls that Cascade claimed to have had on-site and the volume of "used" Tectyls that were subsequently shipped off-site.

4. The issue of whether the Tectyls were "used" or "unused/new" is moot in that it was not the deciding factor in the conclusion reached by the Hearings Officer that the Tectyls were hazardous wastes, not "used oils."


Attachment C - 6 pages

1 5. Cascade has not adequately explained why the "new information" could not have
2 been properly brought before the Hearings Officer prior to his rendering of the Hearing Order.
3 Cascade was in possession of the "new information" at all times. Cascade could have
4 presented that information at hearing in support of Cascade's affirmative claim, or could have
5 requested that the record remain open to allow Cascade to present the information at a later
6 date or in its post-hearing memorandum. Cascade did not do so.

7 6. In the event that the Commission grants Cascade's motion to re-open the
8 evidentiary record, then the Department requests that the Commission also receive into
9 evidence the information used to calculate the \$3,475 of economic benefit (EB) that Cascade
10 gained as a result of its violation. That information was included as Exhibit AA with the
11 Department's Post-Hearing Memorandum, but was rejected by the Hearings Officer on the
12 grounds that it was submitted after the evidentiary record was closed [Hearing Order, Page 8].
13 The Hearings Officer then excepted the EB factor from the calculation of Cascade's penalty
14 because the EB factor was not supported by evidence in the record. The Department would
15 request the Commission to reinstate the \$3,475 EB factor into Cascade's penalty.

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17 DATED September 21, 1999.

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Larry M. Schurr
Environmental Law Specialist
Special Investigator
Statewide Enforcement Section, DEQ

Certificate of Service

I certify that I served a true and correct copy of the attached DEPARTMENT'S MEMORANDUM IN OPPOSITION TO THE MOTION OF CASCADE GENERAL INC. TO PRESENT ADDITIONAL EVIDENCE on each of the following:

Environmental Quality Commission
c/o Susan M. Greco
DEQ Rules Coordinator
811 S.W. Sixth Avenue
Portland, Oregon 97204
(TEL FAX 229-5850)

Leri Irish Bauman
Aler Wynne
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(TEL FAX 226-0079)

The Honorable Lawrence S. Smith
Hearings Officer
(TEL FAX 238-5410)

DATE: September 21, 1999



Larry M. Schurr
Environmental Law Specialist
Special Investigator
Enforcement Section, DEQ

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:
CASCADE GENERAL, INC.
an Oregon corporation,

Respondent.

DEPARTMENT'S REPLY BRIEF TO
CASCADE GENERAL INC.'S
RESPONSE TO DEPARTMENT'S
EXCEPTIONS AND BRIEF

NO. WMC/HW-NWR-97-176
MULTNOMAH COUNTY

ORD 180761934

Pursuant to OAR 340-011-0132(4)(c), the Department of Environmental Quality

hereby files the Department's Reply Brief to Cascade General, Inc.'s Response
to the Department's Exceptions and Brief.

REPLY TO CASCADE'S RESPONSE TO DEPARTMENT'S EXCEPTION 1

1. Cascade's response that "The Department issued penalties against Cascade
for alleged improper disposal of an oil-based product with the brand name Tectyl"
[see page 18 of Cascade's Response] misrepresents the facts in the case.

A. The penalties were assessed for (1) Cascade's failure to make a
complete and accurate hazardous waste determination for each solid waste "residue"
generated by Cascade, and (2) for Cascade's failure to prepare a hazardous waste manifest
prior to shipping hazardous waste for transport for off-site treatment, storage or disposal.

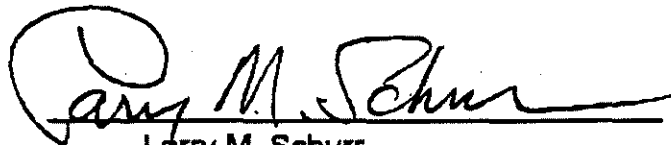
B. The specific waste residues at issue were not "oil-based." The waste
residues at issue were derived from specific Tectyl products which their manufacturer refers to
as "oil-free" Tectyl products [see Hearing Exhibit 116] and which the manufacturer
explicitly distinguishes from "oil film" Tectyl products [see Hearing Exhibit 117].

1 Cascade's violations did not rise from the same event [Page 2, line 14 of
 2 Cascade's Response]. Cascade was obligated to make a hazardous waste determination on
 3 each residue generated, virtually from the moment of generation. That requirement is placed
 4 on hazardous waste generators so the generator and its employees know all hazards
 5 associated with each residue while it is accumulated at the facility so that the residue may be
 6 managed safely. A hazardous waste generator who fails to make a hazardous waste
 7 determination is prohibited by law from accumulating any hazardous waste on-site. The
 8 violation for which Cascade was cited was failure to prepare a manifest prior to
 9 moving hazardous waste for transport off-site. A failure to manifest violation generally occurs
 10 when hazardous waste is moved from on-site accumulation to off-site management at a permitted
 11 storage, reuse, or disposal facility. Cascade's violations involved separate events and
 12 residues.
 13 The only testing of waste performed by Cascade [see Page 2, line 18 of
 14 Cascade's Response] was done at the request of Oregon Re-recycling after Cascade inquired
 15 about the waste. Nothing in the record indicates that Cascade performed any tests on its own
 16 prior to the time of generation, and Cascade's effort to get rid of the Tectyls.
 17 Although the issue remains in dispute, the record shows that Cascade did not follow method
 18 404.1000 hazardous waste determination regulations.

19 **REPLY TO CASCADE'S RESPONSE TO DEPARTMENT'S EXCEPTION 2**

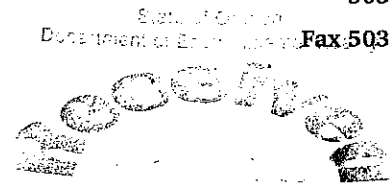
20 The Department appreciates Cascade's concurrence with Department's Exception 2.
 21 Cascade's attorneys intend to seek reinstatement of EB if the evidentiary record is reopened.
 22 CONTACT INFORMATION: September 21, 1999.

23 Respectively submitted,

24 

25 Larry M. Schurr
 26 Environmental Law Specialist
 27 Special Investigator
 28 Statewide Enforcement Section, DEQ

September 7, 1999



OFFICE OF THE DIRECTOR

VIA FACSIMILE

Environmental Quality Commission
c/o Susan Greco, Rules Coordinator
Department of Environmental Quality
911 SW Sixth Avenue, 10th Floor
Portland, Oregon 97204

RE: In the Matter of Cascade General, Inc.
Multnomah County Case No. NO. HW-NWR-97-176

Dear Ms. Greco:

We hand-served on you today the Response to Exceptions and Brief and Cross-Appeal Exceptions and Brief of Cascade General, Inc. We additionally submit by facsimile Cascade General, Inc.'s Motion to Present Additional Evidence and the Affidavit of Alan Sprott in support thereof. Mr. Sprott's Affidavit is submitted without signature due to time constraints; we will obtain his signature tomorrow, September 8th, and submit the original signed Affidavit then.

Thank you for your consideration.

Very truly yours,

Lori Irish Bauman

LIB/dd
Enclosures
cc via fax w/enc.:
Larry Schurr
The Honorable Lawrence S. Smith

52439/1/LIB/056896-0001

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 IN THE MATTER OF:)
4 CASCADE GENERAL, INC.,) MOTION OF CASCADE GENERAL,
an Oregon corporation,) INC. TO PRESENT ADDITIONAL
5 Respondent.) EVIDENCE
6) NO. HW-NWR-97-176
7) MULTNOMAH COUNTY

8 Pursuant to OAR 340-011-0132(4)(j), Cascade General, Inc. requests that the
9 Commission take additional evidence in the appeal of this matter. The additional evidence is the
10 Affidavit of Alan Sprott, and the exhibits thereto, which are filed with this motion.

11 This new evidence concerns Cascade's handling of the Tectyl product which is the
12 subject of the Department's action.

13 As shown in Mr. Sprott's Affidavit, Cascade failed to present this evidence at the hearing
14 before the Hearing Officer because it addresses an issue raised by the Department for the first
15 time at the hearing.

16 DATED this 7th day of September, 1999.

17 Respectfully submitted,

18 ATER WYNNE, LLP

19
20 By: 

21 John M. Schultz, OSB #91419
Lori Irish Bauman, OSB #87161

22 Of Attorneys for Respondent
23 CASCADE GENERAL, INC.
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CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing on the following MOTION OF CASCADE GENERAL, INC. TO PRESENT ADDITIONAL EVIDENCE on the following parties:

Environmental Quality Commission
c/o Susan Greco, Rules Coordinator
Department of Environmental Quality
911 SW Sixth Avenue, 10th Floor
Portland, Oregon 97204
Telephone: (503) 229-5213


Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW Fifth Avenue, Suite 1400
Portland, Oregon 97204
Telephone: (503) 229-6932

by facsimile a true and correct copy thereof to said parties on the date stated below. We have also sent by facsimile a true and correct copy thereof to the Hearings Officer stated below.

The Honorable Lawrence S. Smith
Hearings Officer
State of Oregon
Employment Department
Hearings Section
875 Union Street NE
Salem, OR 97331

The originals of the facsimiles will be filed with the Commission on September 8, 1999.

DATED September 7, 1999.



John M. Schultz
Lori Irish Bauman
Of Attorneys for Respondent

CERTIFICATE OF SERVICE

1 Generator Preservation and Layup.” Work item 2030 (hearing exhibit 5, p. 203-3) specifies
2 Tectyl (which has military specification numbers MIL-C-16173, Grade 2, and MIL-C-16173,
3 Grade 5) among the products to be used in the diesel generator preservation and layup. The
4 relevant lines on the Job Cost Summary Reports are marked with a star.

5 5. These records show that work requiring the use of Tectyl took place after April 30,
6 1996. The inference to be drawn from these records is that Tectyl reported as unused on May
7 2 may have been used before the Tectyl product was ultimately disposed of as used oil on
8 May 30. This supports Cascade’s contention that all of the Tectyl was used before disposal.

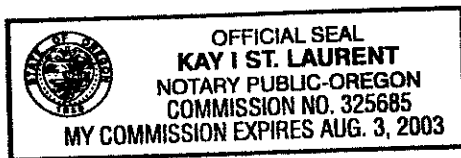
9 6. The Job Cost Summary Report showing a printed date of June 4, 1996 also shows a
10 handwritten date of May 31, 1996. A member of our accounting staff made that change. These
11 reports are typically produced at month end, and typically show the last day of the month as the
12 report date.

13 7. Cascade failed to present this evidence at the hearing because the Department’s
14 contention that some, but not all, of the Tectyl was unused was made for the first time at the
15 hearing. Cascade did not know this would be an issue at the time of the hearing. This evidence
16 rebuts the Department’s contention. A manual search of Cascade’s stored records was required,
17 and that search was only recently completed.

18 DATED this 8th day of September, 1999.

19
20 Alan Sprott
21 Alan Sprott

22 SUBSCRIBED AND SWORN TO BEFORE ME this 8 day of September, 1999.



23 Kay I. St. Laurent
24 Notary Public for the State of Oregon
25 My Commission Expires: 8-3-2003
26

553-003

CASCADE GENERAL, INC.

JOB COST SUMMARY REPORT

WORK IN PROCESS

6/04/96
5/31/96

PAGE 120

J 09

JC0058
JC0058

553-003 USNS ANDREW J. HIGGINS (T-AO 190)

| ITEM NO. | ITEM DESCRIPTION | S.T. HOURS | O.T. HOURS | LABOR COSTS | MATERIALS | SUB-CONTRACTOR | P. OF P. | OVERHEAD APPLIED | TOTAL COSTS | REVENUE | % OF PROFIT |
|----------|--------------------------|------------|------------|-------------|-----------|----------------|----------|------------------|-------------|---------|-------------|
| 10 | INTENT, SCOPE, GEN & DEF | 18.0 | .0 | 311.20 | .00 | .00 | 69553.98 | 354.78 | 70219.96 | .00 | .0 |
| 30 | GENERAL SERVICES FOR SHI | 1180.0 | 108.5 | 22792.71 | 1435.39 | 24350.94 | 18749.70 | 25556.99 | 92885.73 | .00 | .0 |
| 40 | TELEPHONE SERVICES (004) | 8.0 | 1.0 | 160.43 | 185.90 | .00 | .00 | 178.87 | 525.20 | .00 | .0 |
| 50 | WEIGHT ESTIMATE (005) | .0 | .0 | .00 | .00 | 750.00 | .00 | .00 | 750.00 | .00 | .0 |
| 90 | HAZARDOUS WASTE REMOVAL | 2.0 | .0 | 34.30 | .00 | .00 | .00 | 39.42 | 73.72 | .00 | .0 |
| 100 | DELIVERY, CARE & REDELIV | 312.0 | 114.5 | 8728.24 | .00 | .00 | .00 | 8575.79 | 17304.03 | .00 | .0 |
| 110 | RECEPTY, CARE & HANDLING | 52.0 | 1.0 | 875.65 | .00 | .00 | .00 | 1046.11 | 1921.76 | .00 | .0 |
| 120 | GAS FREE CERTIFICATION (| 61.5 | 4.0 | 1108.82 | .00 | 1750.00 | .00 | 1296.93 | 4155.75 | .00 | .0 |
| 130 | HOUSING OF MILITARY DETA | 14.5 | 17.5 | 656.83 | .00 | 21360.00 | .00 | 656.68 | 22673.51 | .00 | .0 |
| 150 | OFF LOAD OF LIQUIDS (CAT | 38.0 | 25.0 | 1294.28 | 8.58 | 1666.50 | .00 | 1278.73 | 4248.01 | .00 | .0 |
| 152 | OFF LOAD LIQUIDS (W/RFP | 40.0 | 10.5 | 939.30 | .00 | .00 | .00 | 1010.90 | 1950.20 | .00 | .0 |
| 160 | HAZARDOUS WASTE REMOVALS | 22.5 | .0 | 362.02 | .00 | 1338.00 | .00 | 443.48 | 2143.50 | .00 | .0 |
| 170 | TANK CLEANING (CAT. B) | 26.0 | .0 | 445.40 | .00 | 17618.00 | .00 | 512.46 | 18575.86 | .00 | .0 |
| 200 | PHOTOGRAPHS (020) | .0 | .0 | .00 | 36.00 | .00 | .00 | .00 | 36.00 | .00 | .0 |
| 210 | INTEGRATED LOGISTICS SUP | .0 | .0 | .00 | .00 | 4641.00 | .00 | .00 | 4641.00 | .00 | .0 |
| 240 | PACKAGING & SHIPPING (CA | 18.0 | .0 | 311.70 | .00 | .00 | .00 | 354.78 | 666.48 | .00 | .0 |
| 1010 | WEATHER DECK CLOSURES (1 | 514.5 | 113.5 | 11559.51 | 1459.21 | 32130.00 | .00 | 12545.92 | 57694.64 | .00 | .0 |
| 1020 | STACK COVERS (102) | 227.5 | 7.0 | 3808.06 | 708.56 | 475.00 | .00 | 4632.37 | 9623.99 | .00 | .0 |
| 1050 | DEHUMIDIFICATION SYS INS | 1263.5 | 279.0 | 27432.93 | 22736.47 | 29847.50 | .00 | 30815.71 | 110832.61 | .00 | .0 |
| 1100 | BLANKING HULL WATERBORNE | 73.0 | 9.5 | 1375.59 | 437.05 | 23165.00 | .00 | 1640.15 | 26617.79 | .00 | .0 |
| 1150 | MAIN MAST STRUCTURAL REM | 156.5 | 25.0 | 3080.77 | 71.29 | .00 | .00 | 3614.37 | 6766.43 | .00 | .0 |
| 2010 | MN PROPULSION DSL ENG (M | 1622.5 | 252.5 | 32130.94 | 2850.05 | 53441.95 | .00 | 37330.03 | 125752.97 | .00 | .0 |
| 2020 | SHIP SERVICE GEN (SSDG) | 786.0 | 37.5 | 13614.03 | 49404.06 | 19346.00 | .00 | 16326.14 | 98690.27 | .00 | .0 |
| 2030 | EMERGENCY DSL GEN (EDG) | 75.0 | 5.0 | 1388.50 | 754.51 | .00 | .00 | 1584.20 | 3727.21 | .00 | .0 |
| 3010 | WEATHER DECK ELECTRICAL | 100.0 | 23.0 | 2151.18 | 977.87 | .00 | .00 | 2458.38 | 5587.43 | .00 | .0 |

PAGE 1 of 2

EXHIBIT

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553-003

H 09

CASCADE GENERAL, INC.

JOB COST SUMMARY REPORT

WORK IN PROCESS

4/30/96

PAGE 120

JC0058
JC0058

553-003 USNS ANDREW J. HIGGINS (T-AD 190)

| ITEM/ITEM NO. | DESCRIPTION | S.T. HOURS | O.T. HOURS | LABOR COSTS | MATERIALS | SUB-CONTRACTOR | P. OF P. | OVERHEAD APPLIED | TOTAL COSTS | REVENUE | % OF PROFIT |
|---------------|---------------------------|------------|------------|-------------|-----------|----------------|----------|------------------|-------------|---------|-------------|
| 10 | INTENT, SCOPE, GEN & DEF | 18.0 | .0 | 311.20 | .00 | .00 | 43787.53 | 354.78 | 44453.51 | .00 | .0 |
| 30 | GENERAL SERVICES FOR SHIP | 1155.0 | 101.0 | 22148.03 | 1435.79 | 20060.66 | 30800.00 | 24905.31 | 99349.39 | .00 | .0 |
| 40 | TELEPHONE SERVICES (004) | 8.0 | .0 | 133.20 | 185.90 | .00 | .00 | 157.68 | 476.78 | .00 | .0 |
| 50 | WEIGHT ESTIMATE (005) | .0 | .0 | .00 | .00 | 750.00 | .00 | .00 | 750.00 | .00 | .0 |
| 90 | HAZARDOUS WASTE REMOVAL | 2.0 | .0 | 34.30 | .00 | .00 | .00 | 39.42 | 73.72 | .00 | .0 |
| 100 | DELIVERY, CARE & REDELIV | 220.0 | 75.5 | 5977.04 | .00 | .00 | .00 | 5936.06 | 11913.10 | .00 | .0 |
| 110 | RECEIPT, CARE & HANDLING | 39.0 | 1.0 | 656.95 | .00 | .00 | .00 | 789.88 | 1446.83 | .00 | .0 |
| 120 | GAS FREE CERTIFICATION (| 61.5 | 4.0 | 1108.82 | .00 | .00 | .00 | 1236.93 | 2405.75 | .00 | .0 |
| 130 | HOUSING OF MILITARY DETA | 14.5 | 17.5 | 656.83 | .00 | 21350.00 | .00 | 656.68 | 22673.51 | .00 | .0 |
| 150 | OFF LOAD OF LIQUIDS (CAT | 38.0 | 25.0 | 1294.28 | 8.50 | 1666.50 | .00 | 1278.73 | 4248.01 | .00 | .0 |
| 152 | OFF LOAD LIQUIDS (H/RFP | 40.0 | 10.5 | 939.30 | .00 | .00 | .00 | 1010.90 | 1950.20 | .00 | .0 |
| 170 | TANK CLEANING (CAT, B) | 26.0 | .0 | 445.40 | .00 | 15276.00 | .00 | 512.46 | 16233.86 | .00 | .0 |
| 200 | PHOTOGRAPHS (020) | .0 | .0 | .00 | 36.00 | .00 | .00 | .00 | 36.00 | .00 | .0 |
| 210 | INTEGRATED LOGISTICS SUP | .0 | .0 | .00 | .30 | 4641.00 | .00 | .00 | 4641.00 | .00 | .0 |
| 240 | PACKAGING & SHIPPING (CA | 2.0 | .0 | 33.30 | .00 | .00 | .00 | 39.42 | 72.72 | .00 | .0 |
| 1010 | WEATHER DECK CLOSURES (1 | 506.5 | 111.5 | 11368.11 | 1459.21 | 32130.00 | .00 | 12345.86 | 57303.18 | .00 | .0 |
| 1020 | STACK COVERS (102) | 227.5 | 7.0 | 3808.06 | 708.56 | 475.00 | .00 | 4632.37 | 9623.99 | .00 | .0 |
| 1050 | DEHUMIDIFICATION SYS INS | 1161.5 | 255.0 | 25097.73 | 22024.46 | 29800.00 | .00 | 28296.73 | 105218.92 | .00 | .0 |
| 1100 | BLANKING HULL WATERBORNE | 73.0 | 9.5 | 1375.59 | 377.89 | 19565.00 | .00 | 1640.15 | 22958.63 | .00 | .0 |
| 1150 | MAIN MAST STRUCTURAL REM | 156.5 | 25.0 | 3080.77 | 71.29 | .00 | .00 | 3614.37 | 6766.43 | .00 | .0 |
| 2010 | MM PROPULSION DSL ENG (M | 1622.5 | 252.5 | 32130.94 | 2725.78 | 53441.95 | .00 | 37330.03 | 125628.70 | .00 | .0 |
| 2020 | SHIP SERVICE GEN (SSDG) | 708.0 | 37.5 | 13614.03 | 49400.50 | 19346.00 | .00 | 16326.14 | 98686.67 | .00 | .0 |
| 2030 | EMERGENCY DSL GEN (EOG) | 51.0 | .0 | 852.40 | 810.99 | .00 | .00 | 1005.21 | 2668.67 | .00 | .0 |
| 3010 | WEATHER DECK ELECTRICAL | 100.0 | 23.0 | 2151.18 | 960.08 | .00 | .00 | 2458.38 | 5579.64 | .00 | .0 |

PAGE 2 of 2

EXHIBIT

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CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing on the following AFFIDAVIT OF ALAN SPROTT IN SUPPORT OF MOTION TO PRESENT ADDITIONAL EVIDENCE on the following parties:

Environmental Quality Commission
c/o Susan Greco, Rules Coordinator
Department of Environmental Quality
911 SW Sixth Avenue, 10th Floor
Portland, Oregon 97204
Telephone: (503) 229-5213

Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW Fifth Avenue, Suite 400
Portland, Oregon 97204
Telephone: (503) 229-6932

by facsimile a true and correct copy thereof to said parties on the date stated below. We have also sent by facsimile a true and correct copy thereof to the Hearings Officer stated below.

The Honorable Lawrence S. Smith
Hearings Officer
State of Oregon
Employment Department
Hearings Section
875 Union Street NE
Salem, OR 97331

The originals of the facsimiles will be filed with the Commission on September 8, 1999.

DATED September 7, 1999.



John M. Schultz
Lori Irish Bauman
Of Attorneys for Respondent

RECEIVED
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DEPT. OF ENVIROMENTAL QUALITY

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

| | | | |
|---|------------------------|---|----------------------------|
| 6 | IN THE MATTER OF: |) | RESPONSE TO EXCEPTIONS AND |
| 7 | CASCADE GENERAL, INC., |) | BRIEF AND CROSS-APPEAL |
| 8 | an Oregon corporation, |) | EXCEPTIONS AND BRIEF OF |
| 9 | Respondent. |) | CASCADE GENERAL, INC. |
| | |) | NO. HW-NWR-97-176 |
| | |) | MULTNOMAH COUNTY |

Pursuant to OAR 340-011-0032(b) and (d), Respondent Cascade General, Inc. (Cascade) responds to the Exceptions and Brief of the Department of Environmental Quality (the Department), and submits its own exceptions and brief on cross-appeal regarding the findings and conclusions set forth in the "Hearing Order Regarding Assessment of Civil Penalty" (Hearing Order) issued by Hearings Officer Lawrence S. Smith in the matter of Case No. HW-NWR-97-176.

RESPONSE TO DEPARTMENT'S EXCEPTION 1

The Department issued penalties against Cascade for alleged improper disposal of an oil-based product with the brand name Tectyl. The penalties were based on the Department's conclusion that the Tectyl was a hazardous waste, and that Cascade had not disposed of it as a hazardous waste. The penalties arose from two distinct alleged Class I violations:

"1. On or about May 30, 1996, Respondent violated OAR 340-102-011(2) by failing to make a complete and accurate hazardous waste determination for each solid waste 'residue,' as defined by OAR 340-100-010(2)(z) and 40 Code of Federal Regulations (CFR) § 261.2(b)(1), generated by Respondent. Specifically, Respondent failed to perform a hazardous waste determination on 2,775 gallons of waste Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with approximately 600 gallons of used oil. Each waste stream was subsequently determined to be a D001 hazardous waste. This is a Class I violation pursuant to OAR 340-12-068(1)(b)."

Attachment F - 41 pages

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2 "2. On or about May 30, 1996, Respondent violated 40 CFR § 262.20(a) by
3 transporting or offering for transportation, hazardous waste for off-site treatment,
4 storage or disposal without first preparing a Hazardous Waste Manifest.
5 Specifically, without first preparing a Hazardous Waste Manifest, Respondent
6 offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with
7 approximately 600 gallons of used oil, (D001 hazardous waste). This is a Class
8 I violation pursuant to OAR 340-12-068(1)(e)."

9 Notice of Violation, Exhibit 4.¹

10 In the Hearing Order, the Hearings Officer voided the first penalty on the ground that
11 "Cascade did perform a hazardous waste determination. It just discounted the results of such a
12 determination." Hearing Order, p. 8. As its Exception 1, the Department now objects to that
13 ruling because Cascade "never reached a proper conclusion that its Tectyls were hazardous
14 wastes." DEQ Exceptions and Brief, p. 2. Applying the relevant regulation to the facts of this
15 case shows that the Hearings Officer was correct to void the first penalty.

16 Both penalties arise from the same event: Cascade's recycling of Tectyl as used oil rather
17 than disposal as hazardous waste. The first penalty is based on an alleged violation of OAR 340-
18 102-0011(2): "A person who generates a residue as defined in OAR 340-100-0010 must
19 determine if that residue is a hazardous waste."

20 The record contains undisputed evidence that Cascade conducted tests of the flash point
21 and metals toxicity of the Tectyl. Exhibits 107 and 108. Those two tests to "determine if . . .
22 residue is a hazardous waste" are included within OAR 340-102-0011(2)(c)(A). That rule states
23 that a person must "determine whether the waste is hazardous under Subpart C of 40 CFR 261
24 by either: . . . Testing the waste according to the methods set forth in Subpart C of 40 CFR 261,
25 or according to an equivalent method approved by the Department under OAR 340-100-0021."
26 Subpart C of 40 CFR 261 provides that a waste is hazardous if it exhibits characteristics of

¹The cited exhibits are exhibits entered into the record at the January 28, 1999 hearing
before the Hearings Officer.

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2 ignitability, corrosivity, reactivity or toxicity. Exhibits 107 and 108 show that Cascade did have
3 the product tested in accordance with Subpart C of 40 CFR 261, and the test showed that the
4 Tectyls exhibited the characteristic of ignitability but did not exhibit the characteristic of toxicity.
5 This is a hazardous waste determination.

6 The Department argues in its brief that the tests conducted were not "adequate" for a
7 hazardous waste determination, but fails to indicate why that is the case. The fact is that the tests
8 did indicate that the product met one of the characteristics of hazardous waste -- namely,
9 ignitability. 40 CFR § 261.20(a) states that a waste is a hazardous waste "if it exhibits *any* of
10 the characteristics identified in this subpart." The Department has shown no basis for its
11 contention that additional tests were required.²

12 However, as discussed in more detail below, Cascade concluded that the product was
13 used oil and therefore exempt from the hazardous waste disposal rules. The Hearings Officer
14 was correct to conclude that Cascade did make a hazardous waste determination, and is not
15 subject to penalty under OAR 340-102-0011(2). What Cascade did *not* do was to have the
16 product transported as a hazardous waste by first preparing a hazardous waste manifest under
17 42 CFR § 262.20(a). It is the failure to prepare a hazardous waste manifest which is the basis
18 for the second penalty.³

19 The Department suggests that a party would escape penalty if the Hearings Officer's
20 ruling is upheld. This is incorrect. A party who makes a hazardous waste determination but fails
21

22
23 ²In fact, OAR 340-102-0011(2)(c)(B) states that, as an alternative to testing for
24 ignitability, corrosivity, reactivity or toxicity, a party may determine whether a material is a
25 hazardous waste by conducting no test at all, but rather by "[a]pplying knowledge of the
26 hazard characteristic of the waste in light of the materials or the processes used."

³The Hearings Officer affirmed that penalty, but that holding was erroneous for the reasons discussed in Cascade's Exceptions 1 and 2.

1
2 to dispose of the waste in accordance with that determination is subject (as Cascade was, albeit
3 incorrectly) to penalty under 40 CFR § 262.20(a) for failure to ship with a hazardous waste
4 manifest.

5 OAR 340-12-068 sets out as separate and distinct violations the failure to conduct a
6 hazardous waste determination, on the one hand, and the failure to prepare a hazardous waste
7 manifest, on the other. OAR 340-12-068(1)(b) and (1)(f). Cascade was correct to conclude that
8 Tectyl was properly managed as used oil rather than hazardous waste. Had Cascade been
9 incorrect in this conclusion, it still conducted the testing to determine whether the Tectyl
10 exhibited any hazardous waste characteristics. Accordingly, even if Cascade were to have made
11 a mistaken management decision, it nonetheless did meet the requirements for conducting a
12 hazardous waste determination.

13 Cascade respectfully requests that the Commission affirm the Hearing Order voiding
14 Violation 1.

15 **RESPONSE TO DEPARTMENT'S EXCEPTION 2**

16 The Department calculated the penalty for Violation 2 (based on Cascade's allegedly
17 offering hazardous waste for transport without first preparing a hazardous waste manifest) using
18 a "Prior Significant Actions" or "P" value of 5 in the formula for determining the amount of the
19 civil penalty. The value of 5 is to be used if the Respondent had four Class One violations or
20 their equivalents. OAR 340-12-0045(1)(c)(A)(vi). The Hearings Officer concluded that the "P"
21 value should have been 3 instead because the Department presented "evidence of only two prior
22 Class One violations against Cascade in Exhibits 111 and 112." Hearing Order, p. 8.

23 The Department took exception to this conclusion by the Hearings Officer, correctly
24 pointing out that Exhibits 111 and 112 support a "P" value of 5 because they contain evidence
25 of four prior Class Two violations. Department Exceptions and Brief, p. 4. The Hearings
26 Officer's Findings of Fact 11 and 12 also support this conclusion. Hearing Order, pp. 3-4.

1
2 Four Class Two violations are considered "equivalent" to two Class One violations pursuant to
3 the definitions in the DEQ regulations at OAR 340-12-0030(1). Thus, Cascade accepts that there
4 is evidence of four Class One violations or equivalents, and it does not contest the use of a "P"
5 factor of 5 if, and only if, this Violation 2 is sustained or if Violation 1 is reinstated.⁴

6 In his Hearing Order, the Hearings Officer did not consider the evidence for the "EB" or
7 economic benefit value in the penalty formula because the Department offered the evidence
8 about economic benefit after the evidentiary record was closed. Hearing Order, p. 8. In its
9 Exceptions and Brief, the Department has agreed to "retract" the EB value. Department's
10 Exceptions and Brief, p. 5. Cascade accepts this retraction. Thus, if, and only if, alleged
11 Violation 2 is sustained, the penalty should be reduced from \$10,000 to \$9,000 because the EB
12 value would be zero.

13 **CASCADE'S EXCEPTION 1**

14 A. The Hearings Officer erred in concluding that the used Tectyl product was not "used
15 oil" subject to recycling.

16 Cascade, which operates the Portland Shipyard under contract with the Port of Portland,
17 performed work on the U.S. Navy vessel *Andrew J. Higgins* in 1995 and 1996. That work
18 prepared the ship for deactivation. Cascade and its subcontractors circulated two related
19 products with the brand names Tectyl 502C and Tectyl 511M through various of the vessel's
20 engine systems to protect the interior parts from rust and corrosion that could result from long
21 periods of nonuse, and to provide lubrication at the time the machinery is restarted. The excess
22 Tectyl was recovered after circulation through the engines. The product was delivered to an oil
23

24 ⁴ As shown below, Cascade contends that Violation 2 should be voided in its entirety
25 for different reasons: Cascade properly disposed of the used Tectyl as used oil, and if the
26 Tectyl included unused product, this was properly handled and disposed of as a mixture of
used oil and ignitable hazardous waste under the used oil rules.

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2 recycler who Cascade understands blended it with other used oils and marketed it as a fuel.

3 Cascade recycled the Tectyl as used oil rather than disposing of it as a hazardous waste.
4 The Hearings Officer concluded that the used Tectyl did not meet the criteria for used oil and
5 affirmed the penalty for failure to prepare a hazardous waste manifest.

6 The Hearings Officer erred in refusing to classify the used Tectyl as used oil. That
7 conclusion is in error for three reasons: (1) it gives undue deference to the Department's
8 interpretation of the term "used oil"; (2) it applies the wrong standard for "used" product; and
9 (3) it focuses on Tectyl's low flashpoint as a basis for refusing to classify the product as used
10 oil.⁵

11 The Hearing Order states "DEQ's interpretation [of the definition of used oil] should be
12 given deference if its interpretation is reasonably consistent with the language of the rule."
13 Hearing Order, p. 7. In particular, the Hearings Officer concluded that the opinion of Rick
14 Volpel, an employee of the Department's Waste Management and Cleanup Division, that used
15 Tectyl is not a used oil must be given almost total deference.⁶ Ibid. However, the Hearing
16 Order fails to take into account the requirement that the agency's interpretation must be
17 consistent with the legislature's intent.

18 The Department interpreted and applied statutory terms in adopting its used oil rules and
19 in applying those rules to the used Tectyl. In particular, the Department interpreted and applied
20 the legislature's definition of used oil, which is found at ORS 459A.555(5). That statute states:
21

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23 ⁵Cascade additionally incorporates by reference its discussion of the relevant law and
24 facts in its Pre-Hearing Memorandum (Exhibit E) and its Post-Hearing Memorandum. For
25 your convenience, we have attached copies of these documents to this Response as
26 Attachments 1 and 2, respectively.

⁶The Hearing Order calls Mr. Volpel "administrator of the used oil program" but there
is no indication in the record that this is his job title.

1
2 "Used oil" means a petroleum-based oil which through use, storage or handling
3 has become unsuitable for its original purpose due to the presence of impurities
4 or loss of original properties."

5 The Department's regulations at OAR 340-108-0002(11) state:

6 "Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil
7 refuse and any other petroleum related product."

8 The Department's used oil management regulations at OAR 340-111-0020(2)(c) state:

9 "Used oil" means any oil that has been refined from crude oil, or any synthetic
10 oil that has been used as a lubricant, coolant (non-contact heat transfer fluids),
11 hydraulic fluid or for similar uses and as a result of such use is contaminated by
12 physical or chemical impurities. Used oil includes, but is not limited to, used
13 motor oil, gear oil, greases, machine cutting and coolant oils, hydraulic fluids,
14 brake fluids, electrical insulation oils, heat transfer oils and refrigeration oils.
15 Used oil does not include used oil mixed with hazardous waste except as allowed
16 in 40 CFR 279.10(b), oil (crude or synthetic) based products used as solvents,
17 antifreeze, wastewaters from which the oil has been recovered, and oil
18 contaminated media or debris."

19 In penalizing Cascade, the Department interpreted and applied the term "used oil." The
20 Oregon Supreme Court has summarized the three classes of statutory terms which delegate rule-
21 making authority to an agency, "each of which conveys a different responsibility for the agency
22 in its initial application of the statute and for the court on review of that application." Springfield
23 Education Ass'n v. School Dist., 290 Or 217, 223 (1980) Those three classes of statutory terms
24 are:

25 (1) Exact terms, which are terms of relatively precise meaning (e.g., "21 years of age,"
26 "male," and "30 days"). Such terms require only factfinding by the agency and judicial review
for substantial evidence. 290 Or at 223.

(2) Inexact terms, which are less precise and are capable of contradictory applications,
although the legislature has "completely stated its meaning . . . in the sense of having made a
complete policy statement." Those terms require agency interpretation and judicial review for
consistency with legislative policy. 290 Or at 225.

(3) Terms of delegation, which "express non-completed legislation which the agency is

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2 given delegated authority to complete" (e.g., "good cause," "fair," "unreasonable," and "public
3 convenience and necessity"). These terms require legislative policy determination by the agency,
4 and judicial review addresses whether that policy is within the delegation. 290 Or at 228.

5 "Used oil" fits within the second class of terms -- it is an inexact term which must be
6 interpreted consistently with legislative policy. *See Jeld-Wen, Inc. v. Environmental Quality*
7 *Comm'n*, 162 Or App 100 (1999). In other words, the Department's application of the used oil
8 rules is not given unquestioning deference. Instead, its interpretation must conform with the
9 used oil legislation.

10 ORS Chapter 459A shows a strong legislative policy in favor of recycling used
11 petroleum products as "used oil" rather than disposing of them by other means. This policy
12 encourages the recovery of energy from used oil, energy which would otherwise be lost if the
13 product were simply discarded. ORS 459A.565 states:

14 **"459A.565 Used oil to be collected and recycled.** The Legislative Assembly
15 declares that used oil shall be collected and recycled to the maximum extent
16 possible, by means which are economically feasible and environmentally sound,
17 in order to conserve irreplaceable petroleum resources, preserve and enhance the
18 quality of natural and human environments, and protect public health and
19 welfare."

18 ORS 459A.590 states:

19 **"459A.590 Use, management, disposal and resource recovery; rules.** The
20 Environmental Quality Commission shall adopt rules and issue orders relating
21 to the use, management, disposal of and resource recovery from used oil. The
22 rules shall include but need not be limited to performance standards and other
23 requirements necessary to protect the public health, safety and environment, and
24 a provision prohibiting the use of untested used oil for dust suppression. The
25 commission shall insure that the rules do not discourage the recovery or recycling
26 of used oil in a manner that is consistent with the protection of human health,
safety and the environment." [Emphasis added.]

24 The Department's narrow interpretation of the law to exclude used Tectyl from used oil defeats
25 the policy of encouraging recycling of oil products.

26 The Hearing Order states that the product was not "used" because the Navy's

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specifications state at one point that, once the product is circulated through a particular engine system, the excess can be collected for reuse. Hearing Order, p. 7. However, there is no indication in the record that the Tectyl recycled at the end of the *Higgins* contract was not circulated through the engines more than once. The evidence that *is* in the record is a jar containing a surviving sample of the Tectyl, which is visibly contaminated and darkened with grit and dirt. Exhibit 11.

ORS 459A.555(5) states that used oil is product which "through use, storage or handling has become unsuitable for its original purpose due to the presence of impurities or loss of original properties." Cascade has shown that it used the product for the *Higgins* project, and that it was contaminated with impurities in the process. Nothing in the statute suggests that the original purchaser of an oil product must use it over and over before it may treat the product as used oil suitable for recycling. Indeed, to impose such a requirement would defeat the legislative plan that properly licensed recyclers handle the reuse and recycling of oil products.

The Hearing Order concludes that the used Tectyl is not a used oil for the additional reasons that it has anti-corrosive properties and that its lubricating purpose is only secondary. Hearing Order, p. 7. Again, this is a very narrow reading of the statute which is not justified by the legislative enactment. ORS 459A.555(5) states quite broadly that used oil is "a petroleum-based oil . . ." There is no dispute in the record that Tectyl derives from petroleum, and even Mr. Volpel of the Department admitted that Tectyl is "primarily oil." The Hearing Order is simply wrong to state that the chemical composition of Tectyl is "significantly different than that of oils." Hearing Order, p. 7. Cascade General's expert chemist, Kent Patton, showed that (1) Tectyl is refined from crude oil, (2) Tectyl products are closer to unrefined crude oil than is 10W-40 motor oil (which is unquestionably an "oil") because Tectyl contains more heavy weight aliphatic hydrocarbons, and (3) Tectyl contains many of the same additives found in motor oil, including sodium and zinc. See Exhibits 7, 8, 9 and 10.

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2 The Department's regulation amplifying the definition of used oil (along with the
3 comparable federal regulation) excludes from the definition petroleum-based products which are
4 used as solvents and antifreeze. Tectyl was not used as a solvent⁷ or an antifreeze. However, the
5 regulation does *not* exclude anti-corrosive products which also have lubricating properties, which
6 is how the Department and the Hearing Order characterize the Tectyl. (*See* also Exhibit 5, last
7 page.) As shown in Cascade's briefs to the Hearings Officer, the regulatory definition of oil
8 products coming within the used oil rule is extremely broad and covers such diverse products
9 as "motor oil, gear oil, greases, machine cutting and coolant oils, hydraulic fluids, electrical
10 insulation oils, heat transfer oils and refrigeration oils." OAR 340-111-0020(2)(c).

11 The regulatory definition also includes oils "that have been used as a lubricant, coolant
12 (non-contact heat transfer fluid), hydraulic fluid or other similar uses." *Id.* (emphasis added).
13 The Hearings Officer refers to an EPA RCRA/Superfund Hotline publication that indicates that
14 oil used as a "buoyant" could be considered a used oil. Hearing Order, p. 7; Exhibit 125. *See*
15 *also* Exhibit 3. In addition, the Oregon definition of used oil specifically includes "refrigeration
16 oils." OAR 340-111-0020(2)(c). Cascade contends that oil used either as a "buoyant" or a
17 "refrigeration oil" is less of a "similar use" when compared to a "lubricant, coolant or hydraulic
18 fluid" than are the Tectyls which were used for both their anti-corrosive and lubricating
19 properties. Thus, the Department and the Hearing Officer are in error in concluding that the use

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21 _____
22 ⁷In the last paragraph on page 7 of the Hearing Order, the Hearings Officer states that
23 the Department's "expert" "reasonably relied on the fact that the Tectyls with their Stoddard
24 Type substances were closer to solvents, which are specifically not used oils, than to
25 lubricating oils." This statement misconstrues the portion of the Oregon used oil definition
26 that refers to solvents. The definition states that "used oil does not include oil (crude or
synthetic) based products used as solvents . . ." OAR 340-111-0020(2)(c) (emphasis added).
Since the Tectyls were used on the *Higgins* as lubricants and anti-corrosives, rather than as
solvents, the fact that the Tectyls contain solvent type substances does not keep them from
being used oils if they meet the other elements of the definition of used oil.

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2 of the Tectyls was not a "similar use" such that Cascade could manage them under the used oil
3 rules.

4 The Hearing Order states "Cascade's argument that the Tectyls are lubricants is rejected
5 because such a use for them is only minor and secondary. The main purpose was as an anti-
6 corrosive and in DEQ's opinion, should be regulated as a hazardous waste because of the low
7 flashpoints." Hearing Order, p. 8. However, neither the anti-corrosive properties nor the low
8 flashpoint of the product prevents it from being classified as a used oil. As shown above, neither
9 the statute nor the regulations exclude anti-corrosives from the used oil definition. In addition,
10 the fact that Tectyl has a low flashpoint is completely immaterial to whether it is a used oil.
11 Ignitability is nowhere cited as a factor in excluding a product from the definition of used oil.

12 If a product is a used oil, it is specifically excluded from the separate regulatory scheme
13 that dictates disposal of a product as a hazardous waste based on its low flashpoint. (See
14 discussion at p. 4 of Pre-Hearing Memorandum of Cascade General, Inc., Attachment 1.) The
15 Hearing Order therefore fails to state adequate grounds to support the conclusion that the used
16 Tectyl was a hazardous waste rather than a used oil.

17 Cascade respectfully requests that the penalties based on its handling of the used Tectyl
18 be reversed.

19 **B. Proposed alternative findings and conclusion.**

20 Cascade requests that the Commission reverse the Hearings Officer's conclusion that the
21 used Tectyl product was not a used oil. Cascade requests that the Commission find that the
22 Tectyl was a petroleum-based oil, was used and contaminated through use, and was subject to
23 recycling as a used oil under ORS Chapter 459A and the related state and federal regulations.
24 Cascade requests that the Commission accordingly void all penalties issued against Cascade in
25 this matter.
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2 **CASCADE'S EXCEPTION 2**

3 A. The Hearings Officer erred in concluding that some of the Tectyl disposed of by
4 Cascade was unused product.

5 The Hearings Officer concluded in Finding of Fact 4 of the Hearing Order that “[a]fter
6 the job Cascade had 24 55-gallon drums of used Tectyl 511M, 17 drums of used Tectyl 502C,
7 and seven drums of unused Tectyl 511M (Exhibit 5).” Hearing Order, p. 2. The Hearings
8 Officer further concluded in Finding of Fact 6 of the Hearing Order that Oil Re-Refining picked
9 up 2,775 gallons of used and unused oil from Cascade based on Exhibit 101 and that “the unused
10 Tectyl was Tectyl 511M that Cascade had no use for after the contract for the Higgins was
11 completed.” *Ibid.*

12 While the hearing record may show that Cascade had no immediate use for the unused
13 Tectyl 511M after completing the work on the *Higgins*, there is nothing in the record that proves
14 conclusively that Cascade sent seven barrels of unused Tectyl to Oil Re-Refining with the 41
15 barrels of used Tectyl. Indeed, a closer reading of the handwritten notes in Exhibit 5 reveals that
16 Cascade intended to dispose of only 41 barrels of the Tectyl. Whether Cascade actually disposed
17 of the seven barrels of unused Tectyl 511M cannot be determined for certain from Cascade’s and
18 Oil Re-Refining’s records. It is certain that the work on the *Higgins* continued for more than
19 month after the May 2, 1996 records stating that seven barrels of unused Tectyl 511M were
20 removed from the ship. That work included tasks requiring the application of Tectyl to the
21 vessels engines, generators and other systems. Sprott Affidavit (filed herewith). *See* Attachment
22 2, pages 7-8, for further discussion of the evidence tht the product was used. Thus, when
23 Cascade sent the 2,775 gallons of Tectyl to be recycled on May 30, 1996, it is likely that it was
24 sending used Tectyl.

25 B. Even if some of the Tectyl product recycled was unused, it was properly managed by
26 Cascade along with the used Tectyl.

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2 Assuming some unused Tectyl was included with Cascade's May 30, 1996, shipment to
3 Oil Re-Refining, Cascade properly managed all of the Tectyl products -- both used and unused --
4 pursuant to the requirements of 40 C.F.R. Part 279 and the Oregon used oil statutes and
5 regulations. As discussed in Cascade's Exception 1 above, the used Tectyl products meet the
6 federal and state definition of "used oil." Any unused Tectyl once discarded would arguably be
7 a hazardous waste because of its low flashpoint. However, as an "ignitable" hazardous waste,
8 it was allowed to be mixed with Cascade's unused Tectyl and the other used oil in the Oil Re-
9 Refining truck. This is expressly permitted by the used oil mixture rule of 40 C.F.R.
10 §279.10(b)(2)(iii). The used oil mixture rule states, in part:

11 "Mixtures of used oil and [characteristic] hazardous waste . . . are subject to:
12 (iii) Regulation as used oil under this part [279], if the mixture is of used oil and
13 a waste which is hazardous solely because it exhibits the characteristic of
14 ignitability (e.g., ignitable-only mineral spirits), provided that the resultant
mixture does not exhibit the characteristic of ignitability under § 261.21 of this
chapter."

15 This used oil mixture rule has been specifically adopted by the Department. *See* OAR 340-111-
16 0010(1) and (2).

17 When Oil Re-Refining's truck came to the Cascade facility on May 30, 1996, Cascade
18 directed Oil Re-Refining to mix the Tectyl oil products it wished to recycle with the used oil
19 from another source already present in Oil Re-Refining's truck. This mixing was performed on
20 Cascade's premises. As subsequent testing indicated (*see* the last page of Exhibit 113 and
21 discussion in Cascade's Exception 3 below), the resulting mixture of the used — and possibly
22 unused — Tectyls with the used oils in the truck had a flashpoint of over 240°F, well above the
23 140°F cutoff point for the ignitability characteristic for liquids as set out in 40 C.F.R.
24 §261.21(a)(1). Consequently, because the resulting mixture did not exhibit the characteristic of
25 ignitability, any unused Tectyl that may have been recycled on May 30, 1996, was properly
26 managed by Cascade in mixing it with used oil pursuant to the used oil mixture rule.

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2 Even if the used Tectyl is not considered a used oil (as we argue in Exception 1 above)
3 and is instead deemed an ignitable hazardous waste, Cascade properly handled the used Tectyl
4 pursuant to the used oil mixture rule by mixing the used Tectyl with used oil to extinguish the
5 ignitability characteristic.

6 C. Proposed alternative findings

7 Cascade proposes three alternative findings: (1) Cascade requests that the Commission
8 reverse the Hearings Officer's conclusion that the Tectyl product recycled by Cascade included
9 unused Tectyl. (2) Cascade alternatively requests that if the Commission finds that Cascade did
10 recycle unused Tectyl, the Commission should find that this management of unused Tectyl was
11 allowed under the used oil mixture rule. (3) Cascade alternatively requests that if the
12 Commission finds that the used Tectyl was an ignitable hazardous waste rather than a used oil,
13 the Commission should find that the used Tectyl was properly handled by mixing it with used
14 oil (and possibly unused Tectyl) and extinguishing the ignitability characteristic as expressly
15 allowed by the used oil mixture rule. Cascade requests that the Commission accordingly void
16 all penalties issued against Cascade in this matter.

17 **CASCADE'S EXCEPTION 3**

18 A. Cascade requests that the Commission correct two factual errors in the Hearing Order.

19 Two factual errors appear in the Hearing Order. Cascade requests that the Commission
20 correct those errors. The first error is at page two, Finding of Fact 3 of the Hearing Order: "[The
21 Tectyl products] can be easily removed by any oil." In fact, evidence at the hearing shows that,
22 as an oil-based product, Tectyl can be removed from a surface by a *solvent*, not by another oil.
23 The manufacturer's instructions show that it can be removed with "solvent borne thinner, vapor
24 degreasing, hot alkaline wash, or low pressure steam." Exhibit 104, p. 2 and Exhibit 105, p.5.

25 Secondly, at page 6, in the second paragraph after the heading "Hazardous Waste
26 Manifest," the Hearing Order states: "The mixing the [sic] Tectyls with the used oil in the tanks

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2 of Oil Re-Refining did not raise the flashpoint to an acceptable level, so the resulting mixture
3 was still a hazardous waste. The Tectyls would have to be mixed with four times the amount of
4 used oil to raise the flashpoint high enough so it no longer had the characteristic of a hazardous
5 waste. Oil Re-Refining did not do that.” A similar statement appears at page 3, Finding of Fact
6 6.

7 These statements are incorrect. The record shows that, after the Tectyl was delivered to
8 the Oil Re-Refining truck, the mixture was tested for ignitability and the flashpoint exceeded
9 240 degrees. The material no longer had a low flashpoint after mixing. Exhibit 113, last page.
10 While the Department argued that, in theory, the Tectyl would have to have been diluted with
11 a large quantity of used oil to extinguish its ignitability, the facts show that the mixture did
12 extinguish that characteristic. While it is impossible to reconstruct the contents of the Oil Re-
13 Refining tank truck, it is conceivable that the flashpoint was raised dramatically because the 600
14 gallons of used oil from Campbell Crane Company present in the tank at the time the Tectyl was
15 added had a high water content. The water would have raised the flash point.

16 B. Proposed alternative findings

17 Cascade requests that the following changes be made in the Hearing Order. At page 2,
18 Finding of Fact 3 of the Hearing Order, delete “They can be easily removed by any oil,” and
19 substitute “They can be removed by solvent borne thinners.”

20 At page three, Finding of Fact 6, delete “To increase the Tectyls’ flashpoint above 140
21 degrees Fahrenheit, the Tectyls would have to be diluted with five times the amount of used
22 motor oil.”

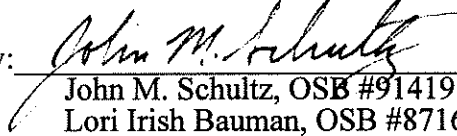
23 At page 6, in the second paragraph after the heading “Hazardous Waste Manifest,” delete
24 “The mixing the Tectyls with the used oil in the tanks of Oil Re-Refining did not raise the
25 flashpoint to an acceptable level, so the resulting mixture was still a hazardous waste. The
26 Tectyls would have to be mixed with four times the amount of used oil to raise the flashpoint

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high enough so it no longer had the characteristic of a hazardous waste. Oil Re-Refining did not do that.” Substitute the following language: “The mixing of the Tectyls with the used oil in the tank of Oil Re-Refining raised the flashpoint of the mixture above 240 degrees Fahrenheit, according to an analysis conducted by Oil Re-Refining. This extinguished the ignitability characteristic of the Tectyl products.”

Respectfully submitted,

ATER WYNNE LLP

By: 
John M. Schultz, OSB #91419
Lori Irish Bauman, OSB #87161

Of Attorneys for Respondent
CASCADE GENERAL, INC.

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CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing RESPONSE TO EXCEPTIONS AND BRIEF AND CROSS-APPEAL EXCEPTIONS AND BRIEF OF CASCADE GENERAL on the following parties:


Environmental Quality Commission
c/o Susan Greco, Rules Coordinator
Department of Environmental Quality
811 SW Sixth Avenue, 10th Floor
Portland, OR 97204
Phone: 229-5213

Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW Fifth Avenue, Suite 1400
Portland, OR 97201
Phone: 229-6932

by delivering by hand a true and correct copy thereof to said parties on the date stated below. We have also sent by facsimile a true and correct copy thereof to the Hearings Officer stated below.

The Honorable Lawrence S. Smith
Hearings Officer
State of Oregon
Employment Department
Hearings Section
875 Union St. N.E.
Salem, OR 97331

DATED this 7th day of September, 1999.



John M. Schultz, OSB #91419
Of Attorneys for Respondent
Cascade General, Inc.

CERTIFICATE OF SERVICE

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF
CASCADE GENERAL, INC.,
an Oregon Corporation,

Respondent.

)
) No. HW-NWR-97-176
) MULTNOMAH COUNTY

)
) PRE-HEARING MEMORANDUM OF
) CASCADE GENERAL, INC.

I. INTRODUCTION

This memorandum sets out the law applicable to Cascade General, Inc.'s ("Cascade") treatment of used Tectyl products 502C and 511M ("Tectyl") as "used oil" consistent with the used oil rules promulgated by the Oregon Department of Environmental Quality (the "Department"). See generally OAR 340-111-0000, et seq. The Department contends that the used Tectyl should not be characterized as used oil and issued a Notice of Violation ("NOV") to Cascade on November 11, 1997.

The NOV alleged that Cascade violated the Department's hazardous waste rules by treating the Tectyl as used oil. Specifically, the NOV stated: (1) Cascade violated OAR 340-102-011(2) by failing to make a hazardous waste determination concerning Tectyl which it disposed in May 1996; and (2) because the Tectyl allegedly was a hazardous waste, Cascade violated 40 CFR § 262.20(a) by failing to prepare a hazardous waste manifest before arranging for the transport of the Tectyl/other used oil mixture.¹

Based on the legal authority discussed below, the evidence at the contested case hearing will show that (1) Cascade did, in fact, conduct a hazardous waste determination on

¹Copies of the statutes, regulations and other documents cited in this Memorandum will be offered into evidence at the hearing of this matter.

1 the Tectyl product, and (2) Cascade properly managed the Tectyl as used oil. For these
2 reasons, there is no evidence to support the NOV and the Department's determination should
3 be set aside:

4 II. FACTUAL BACKGROUND

5 The evidence at the hearing will show that Cascade, which operates the Portland
6 Shipyard under a contract with the Port of Portland, performed work on the U.S. Navy
7 vessel Andrew J. Higgins in 1995 and 1996. The aim of that work was to prepare the vessel
8 for deactivation. Cascade and its subcontractors circulated Tectyl through many of the
9 vessel's engine systems to protect the interior parts from the rust and corrosion that could
10 result from long periods of nonuse and to provide lubrication at the time the machinery is
11 restarted. The excess Tectyl was recovered after circulation through the engines. The
12 product was mixed with other used oil and delivered to a recycler.

13 The Tectyl oil products are, in the words of their manufacturer, Valvoline, "rust
14 preventative coatings, [which leave] a soft oily film that contains corrosion inhibitors." Ltr.,
15 Tracy G. Smith, Valvoline, to Alan Sprott, Cascade General, 3/25/98. The Tectyl oils have
16 a low flash point because of their mineral spirit content. Each of the two Tectyl products are
17 described specifically in the Valvoline letter:

18 Tectyl 511 M contains mineral spirits, *a petroleum base stock*
19 *(commonly used in crankcase oils)* and two glycol ethers in very
20 low concentrations that are present to ensure an even film
formation.

21 Tectyl 502 C does not contain the glycol ethers, but does
contain unoxidized petrolatum.

22 (Emphasis added.)

23 The Valvoline representative wrote: "They [the Tectyl products] are not paints; the
24 coatings do not cross-link to a hard surface and do not contain any pigmentation or mineral
25 fillers." *Id.* Moreover, the Tectyl oils are designed to be compatible with -- indeed,
26 beneficial to -- the interior workings of engines and other machinery. Their soft oily film

1 and low flash point are consistent with this purpose.

2 The Department cited Tectyl's low flash point as the reason that it should have been
3 treated as a hazardous waste. Cascade contends that the Tectyl was a used oil exempt from
4 hazardous waste management.

5 The evidence will show that, even though Tectyl is a used oil exempt from the
6 hazardous waste rules, Cascade conducted a hazardous waste determination on the Tectyl
7 before it was disposed by recycling for energy recovery.

8 III. DISCUSSION

9 A. Policy and regulation of hazardous waste and used oil

10 One of the goals of hazardous waste regulation under the federal Resource
11 Conservation and Recovery Act ("RCRA") -- and the implementing rules and statutes of
12 Oregon law -- is to encourage the recycling and reuse of oil.

13 RCRA itself states:

14 "The Congress finds and declares that --

15 (1) used oil is a valuable source of increasingly scarce
16 energy and materials;

17 (2) technology exists to re-refine, reprocess, reclaim, and
18 otherwise recycle used oil;

19 (3) used oil constitutes a threat to public health and the
20 environment when reused or disposed of improperly; and

21 that, therefore, it is in the national interest to recycle used oil in
22 a manner which does not constitute a threat to public health and
23 the environment and which conserves energy and materials."

24 42 USC § 6901a.

25 RCRA accomplishes these goals by managing the disposal of used oil in ways that are
26 less stringent than those for RCRA "hazardous" wastes:

"The Administrator shall ensure that such regulations
[concerning recycled oil] do not discourage the recovery or
recycling of used oil, consistent with the protection of human
health and the environment."

1 42 USC § 6935(a). For example, management of used oil generally does not require
2 hazardous waste determination or completion of transport manifests unless that oil is mixed
3 with a hazardous waste. 40 CFR § 279.10(b).

4 A review of the federal regulations shows different regulatory regimes governing
5 hazardous waste, on the one hand, and used oil, on the other hand. Hazardous wastes are
6 regulated under 40 CFR Parts 260-266 and 268. Wastes are identified as hazardous in two
7 different ways: They are either specifically listed as hazardous at 40 CFR Subpart D, or
8 they are determined to be hazardous if they exhibit any of four characteristics described at 40
9 CFR Subpart C. One of those hazardous characteristics is ignitability, or low flashpoint.²
10 40 CFR § 261.21.

11 But used oil to be recycled is not a hazardous waste because (1) it is not among the
12 listed hazardous wastes at 40 CFR Subpart D, and (2) it is expressly not subject to hazardous
13 waste regulation by 40 CFR § 261.6(a)(4),³ which states:

14 "Used oil that is recycled and is also a hazardous waste
15 solely because it exhibits a hazardous characteristic is not
16 subject to the requirements of parts 260 through 268 of this
chapter, but is regulated under part 279 of this chapter."

17 This means that used oil -- even if it exhibits a characteristic of hazardous waste, such
18 as low flashpoint -- is not subject to the same testing and management requirements as is
19 hazardous waste, but instead is expressly subject to the less stringent requirements of the
20 used oil rules at 40 CFR Part 279.

21 The Department penalized Cascade for failing to treat the Tectyl like a hazardous
22 waste. Cascade contends that the Tectyl product was a used oil, was exempt from hazardous

23 _____
24 ²The other characteristics are corrosivity (40 CFR § 261.22), reactivity (40 CFR § 261.23) and
toxicity (40 CFR § 261.24).

25 ³Oregon has adopted this exemption into its regulatory scheme through OAR 340-100-002(1) and
26 340-102-0010(2).

1 waste management and was instead subject to the specialized used oil rules. The issue for
2 hearing, then, is whether the Tectyl was a "used oil."

3 B. Regulatory definition of used oil

4 One of the keys to used oil management scheme is the broad federal definition of
5 "used oil":

6 "Used oil means any oil that has been refined from crude oil, or
7 any synthetic oil, that has been used and as a result of such use
is contaminated by physical or chemical impurities.

8 40 CFR § 279.1.

9 Oregon's comparable used oil rules define "used oil" as follows:

10 "Used Oil' means any oil that has been refined from crude oil,
11 or any synthetic oil that has been used as a lubricant, coolant
(non-contact heat transfer fluids), hydraulic fluid *or for similar*
12 *uses* and as a result of such use is contaminated by physical or
chemical impurities. Used oil includes, *but is not limited to*,
13 used motor oil, gear oil, greases, machine cutting and coolant
oils, hydraulic fluids, brake fluids, electrical insulation oils, heat
14 transfer oils and refrigeration oils. *Used oil does not include*
used oil mixed with hazardous waste except as allowed in 40
CFR 279.10(b), oil (crude or synthetic) based products used as
15 solvents, antifreeze, wastewaters from which the oil has been
recovered, and oil contaminated media or debris[.]"

16 OAR 340-111-0020(c) (emphasis added).

17 The federal regulation and the Oregon regulation are superficially different insofar as
18 the Oregon definition provides specific examples of products which are and are not used oils.
19 However, the regulatory history of both rules shows that the Oregon definition is intended to
20 be consistent with the Environmental Protection Agency's broad interpretation of "used oil."

21 In the Preamble to its regulations adopting the current used oil definition in 1992, the
22 EPA stated:

23 "This regulatory definition of use oil is drawn from the statutory
24 definition of used oil found at section 1004(36) of RCRA
25 EPA believes that this definition covers the majority of oils used
as lubricants, coolants (non-contact heat transfer fluids),
26 emulsions, *or for similar uses* and are likely to get contaminated

1 through use. *Therefore, specific types of used oils are not*
2 *identified in the definition.*"

3 *Id.* (emphasis added).

4 A 1994 memorandum by the director of the Department discusses Oregon's used oil
5 definition. It states that the definition includes examples of "what is and is not a used oil,"
6 and that the examples are "clarifying language to better reflect EPA's intent as described in
7 the rules' preamble . . ." 3/1/94 Memo., Fred Hansen to EQC, pp. 3, 10. In short,
8 Oregon's definition of used oil is neither broader nor narrower than the federal definition,
9 but rather is consistent with that definition.

10 Although the Oregon definition contains a number of identified uses and types of oils,
11 by its own terms those uses and types are not exclusive. The definition is, however, specific
12 about what is not considered "used oil": among them are products used as solvents,
13 antifreeze, and some mixtures of used oil and hazardous waste.

14 EPA's own interpretation of the used oil rule shows that the definition must be
15 interpreted flexibly to meet the Congressional policy of recycling and reusing oil products
16 whenever feasible. A November 1996 EPA Pamphlet entitled "Managing Used Oil: Advice
17 for Small Businesses," describes the three criteria for used oil:

18 (1) Origin: Used oil must have been refined from crude
19 oil or made from synthetic materials.

20 (2) Use: "Oils used as lubricants, hydraulic fluids, heat
21 transfer fluids, buoyants, and for other similar purposes are
22 considered used oil. . . . EPA's definition . . . excludes
23 products used as cleaning agents or solely for their solvent
24 properties, as well as certain petroleum-derived products like
25 antifreeze or kerosene."

26 (3) Contaminants: Used oil is that which has become
contaminated with either physical or chemical impurities.

27 The EPA pamphlet lists examples of used oil. That nonexclusive list shows the
28 breadth of the rule. It includes engine oil, transmission fluid, refrigeration oil, compressor
29 oils, metalworking fluids and oils, laminating oils, industrial hydraulic fluid, copper and

1 aluminum wire drawing solution, electric insulating oil, industrial process oils, and oils used
2 as buoyants.

3 In contrast, under the heading "Used Oil Is Not," the pamphlet lists just four
4 categories: waste oils that have not actually been used, products such as antifreeze and
5 kerosene, vegetable and animal oil, and petroleum distillates used as solvents.

6 C. Tectyl meets the statutory definition of "used oil"

7 Cascade General will present evidence at the hearing that the used Tectyl is a used oil
8 and was properly treated as such for disposal purposes.

9 Tectyl, being of a "petroleum base stock," falls within both the federal and Oregon
10 definitions of "used oil." Tectyl is petroleum-based oil, is used, and becomes contaminated
11 as a result of its use -- as such, it fits well within the federal definition. Oregon's more
12 detailed definition of "used oil," with its open-ended list of descriptors, also includes Tectyl.
13 Tectyl has lubricant properties, like any motor oil. The evidence will show that Tectyl's use
14 as a corrosion inhibitor for internal engine parts is similar to that of most lubrication oils,
15 which have corrosion-prevention characteristics.

16 Moreover, Tectyl is not subject to any of the specific exclusions of the Oregon rules,
17 which are: (1) used oil mixed with hazardous waste, (2) oil-based products used as solvents,
18 (3) antifreeze, (4) wastewaters from which oil has been recovered, or (5) oil-contaminated
19 media or debris.

20 Although Tectyl contains an ingredient that may be used as a solvent in some
21 applications, Tectyl is not used as a solvent. A solvent is "a substance, usually a liquid,
22 capable of dissolving another substance." *The American Heritage College Dictionary* (1993),
23 p. 1296. Solvents are often used for cleaning and degreasing.

24 Tectyl consists largely of petroleum lube oil and "aliphatic hydrocarbons (Stoddard
25 type)." Aliphatic hydrocarbons may be used by themselves in other applications as solvents.
26 However, in Tectyl, these aliphatic hydrocarbons are included to assist in the product's even

1 coating ability. Thus, Tectyl is not "used as" a solvent as the Oregon rules envision.
2 Rather, it is used to coat, lubricate and prevent rust and other corrosion. As such, it does
3 not fall under any of Oregon's specific exclusions of "solvents" from the definition of "used
4 oil."

5 This conclusion is supported by the Department's own interpretation of its use of the
6 term "solvents." In the 1994 Department memorandum responding to comments about the
7 definition, the Director concludes that lubricating oil products which have secondary cleaning
8 properties may nonetheless be considered used oil if their primary purpose is other than as a
9 solvent:

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"Interested parties were concerned that excluding
'solvents' from the definition of 'used oil' would exclude
lubricating oils from the definition, since they have secondary
cleaning property. That, of course, was not the Department's
intent: lubricating oils do indeed meet the definition of 'used oil'
when they become spent."

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3/1/94 Hansen Memo., p. 14. This means that a used oil product can still be a "used oil"
under RCRA even if it contains additives, including additives which can act as a solvent in
some applications.

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The Department has argued that, because Tectyl coats the interior surfaces of engine
systems, it should be considered a paint and managed as such in the hazardous waste
regulatory scheme. The evidence will show that the products are not paints because they do
not contain solids and, after application, lack the durable and permanent finish desirable in
painted surfaces. Tectyl is designed for use in engines and leaves a soft, oily film on the
surfaces of interior parts. That Tectyl acts differently from paint should be no surprise: it is
hard to imagine pouring paint into an engine for any constructive reason.

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Tectyl, then, fits the regulatory definition of "used oil." Moreover, Cascade's
recycling of used Tectyl comports with the policy behind the used oil recycling program. As
a used oil "generator," Cascade sent the used Tectyl to Oil Re-Refining, which it understands

1 blended it with other used oils and in turn "marketed" it to third parties for burning and for
2 energy recovery. To manage used Tectyl as a hazardous waste subverts federal policy and
3 unnecessarily burdens the system of hazardous waste treatment and disposal. Moreover,
4 such management "wastes" Tectyl's recycling potential and further diminishes the nation's
5 ability to conserve its oil resources.

6 The violations and penalties assessed against Cascade lack support in the law and
7 should be set aside.

8 D. Violation 1 is without merit because Cascade did conduct a hazardous waste
9 determination

10 The Department assessed penalties for two violations of the hazardous waste laws.
11 As shown above, the penalties are without merit because it was not appropriate to manage
12 the used Tectyl under the hazardous waste regulations. Cascade will additionally show that,
13 even if the hazardous waste regulations applied to the used Tectyl, violation 1 is without
14 merit. Violation 1 -- resulting in a \$4,500 penalty -- states that Cascade failed to conduct a
15 hazardous waste determination for the Tectyl before disposal. The evidence will show that
16 Cascade did in fact conduct a hazardous waste determination, and supplied the appropriate
17 documentation to the Department.

18 For this additional reason, violation 1 is without merit and should be vacated.

19 DATED January 27, 1999.

20 Respectfully submitted,

21 

22 John M. Schultz, OSB #91419
23 Lori Irish Bauman, OSB #87161
24 Of Attorneys for Respondent
25 Cascade General, Inc.
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

| | | |
|------------------------|---|-------------------------|
| IN THE MATTER OF |) | |
| CASCADE GENERAL, INC., |) | No. HW-NWR-97-176 |
| an Oregon Corporation, |) | MULTNOMAH COUNTY |
| |) | |
| Respondent. |) | POST-HEARING MEMORANDUM |
| |) | OF RESPONDENT CASCADE |
| |) | GENERAL, INC. |

The Oregon Department of Environmental Quality ("DEQ" or the "Department") has imposed a fine against Cascade General, Inc. ("Cascade General") for improper handling of a product which Cascade General in good faith believed to be subject to the state and federal used oil rules. The question to be resolved in this matter is not "what did Cascade know and when did Cascade know it?," as the Department flippantly asserts in its memorandum (DEQ Brief, p. 2). Rather, the issues are whether (1) the Department has shown by preponderance of the evidence that the Tectyl product which Cascade General recycled was a hazardous waste and not used oil, and (2) whether the Department has shown by a preponderance of the evidence that it acted properly in issuing two violations against Cascade General. For the reasons stated below, the Department failed to carry its burden on either point at the hearing on this matter.

Testimony at the hearing reveals some troubling policy issues which further support vacating the violations and penalties. The evidence at the hearing showed (1) that there is disagreement and uncertainty even within the Department about the interpretation and application of the used oil rules, and (2) the Tectyl product, when handled under the used oil rules, does not present a hazard to the public any more substantial than products clearly within the rules, such as off-specification used oil. To enforce \$14,500 in penalties when the

1 government policy is less than clear and the public was not threatened is both unfair and
2 contrary to law.

3 A. The Department has the burden of proving the facts to support the violation, including
4 that the Tectyl was a hazardous waste and not used oil

5 The Department is wrong to attempt to throw the entire burden of proof onto Cascade
6 General. In particular, the Department is incorrect to assert that Cascade General has the
7 burden of proving that the Tectyl was subject to the used oil rules rather than the hazardous
8 waste rules. An Oregon administrative agency has the burden of presenting evidence to
9 support its actions. The standard of proof applied by the decision maker in a contested case
10 proceeding is whether a preponderance of the evidence supports the agency action. Oregon
11 Attorney General's Administrative Law Manual, p. 115-17 (1997).

12 The Department asserts that EPA regulations place on Cascade General the burden of
13 showing that the Tectyl is not a "solid waste" or "waste," citing 40 CFR § 261.2(f). But
14 Cascade General does not contend that the used Tectyl was a solid waste. Rather, it relies
15 on 40 CFR § 261.6(a)(4) (included in Ex. 1) which states

16 "Used oil that is recycled and is also a hazardous waste solely because it
17 exhibits a hazardous characteristic is not subject to the requirements of parts
18 260 through 268 of this chapter [Chapter I of Title 40], but is regulated under
19 part 279 of this chapter."

20 This section exempts used oil from 40 CFR § 261.2(f), the regulation which the Department
21 cites for placing the burden on Cascade General. And the used oil rules at 40 CFR, Part 279
22 do not place on the used oil generator the burden of proving that a product is used oil.
23 Because there is no federal regulatory burden of proof, the state law burden of proof in
24 contested cases applies here.

25 The Department thus has the burden of showing that the Tectyl is a hazardous waste
26 which was improperly managed, rather than a used oil. In any event, as shown below,
Cascade General came forward with more than enough evidence at the hearing to show that

1 the Department's Notice of Violation ("NOV") is unsupported by the facts or the law.

2 B. The Tectyl was a used oil under the Oregon and federal rules

3 The NOV is based on the premise that the used Tectyl product was required to be
4 managed as a hazardous waste. According to testimony at the hearing, the Department
5 reached that conclusion because the product had a low flash point, and so met one of the
6 regulatory characteristics of a hazardous waste. The two violations were for failure to
7 manage the product as a hazardous waste. But evidence at the hearing showed that the NOV
8 should be vacated because the recycled product was a used oil, was properly handled as
9 such, and was exempt from management as a hazardous waste.

10 As shown in Cascade General's Pre-Hearing Memorandum, both state and federal
11 hazardous waste policy treats used oil differently from hazardous waste in order to encourage
12 recycling and re-use of oil.

13 Oregon regulations define "oil" for used oil management and other purposes as
14 follows:

15 "Oil" includes gasoline, crude oil, fuel oil, diesel oil,
16 lubricating oil, sludge, oil refuse and any other petroleum
related product.

17 OAR 340-108-0002(11) (emphasis added). This definition of "oil" is incorporated into the
18 Department's Used Oil Management Regulations (Title 340, Division 111), by OAR 340-
111-0020(1).

19 Federal regulations define "used oil" as follows:

20 "Used oil means any oil that has been refined from crude oil, or
21 any synthetic oil, that has been used and as a result of, such use
is contaminated by physical or chemical impurities."

22 40 CFR § 279.1.

23 The Preamble to the EPA regulations state:

24 "This regulatory definition of use oil is drawn from the statutory
25 definition of used oil found at section 1004(36) of RCRA
EPA believes that this definition covers the majority of oils used
26 as lubricants, coolants (non-contact heat transfer fluids),
emulsions, or for similar uses and are likely to get contaminated

1 through use. *Therefore, specific types of used oils are not*
2 *identified in the definition.*"

3 *Id.* (emphasis added).

4 State regulations define "used oil" as follows:

5 "Used Oil" means any oil that has been refined from crude oil,
6 or any synthetic oil that has been used as a lubricant, coolant
7 (non-contact heat transfer fluids), hydraulic fluid *or for similar*
8 *uses* and as a result of such use is contaminated by physical or
9 chemical impurities. Used oil includes, *but is not limited to,*
10 used motor oil, gear oil, greases, machine cutting and coolant
11 oils, hydraulic fluids, brake fluids, electrical insulation oils, heat
12 transfer oils and refrigeration oils. *Used oil does not include*
13 *used oil mixed with hazardous waste except as allowed in 40*
14 *CFR 279.10(b), oil (crude or synthetic) based products used as*
15 *solvents, antifreeze, wastewaters from which the oil has been*
16 *recovered, and oil contaminated media or debris[.]"*

17 OAR 340-111-0020(c) (emphasis added). The detail in this Oregon used oil regulation is
18 designed to track the EPA Preamble language explaining the federal regulation.¹

19 EPA's own interpretation shows that the definition must be interpreted broadly to
20 meet the Congressional policy of recycling and reusing oil products. Exhibit 3 is a
21 November 1996 EPA pamphlet entitled "Managing Used Oil: Advice for Small Businesses."
22 It reiterates the three criteria for "used oil" from the state and federal definitions of "used
23 oil" set out above:

24 (1) Origin: Used oil must have been refined from crude oil or made
25 from synthetic materials.

26 (2) Use: "Oils used as lubricants, hydraulic fluids, heat transfer
fluids, buoyants, and for other similar purposes are considered used oil. . . .
EPA's definition . . . excludes products used as cleaning agents or solely for
their solvent properties, as well as certain petroleum-derived products like
antifreeze or kerosene."

(3) Contaminants: Used oil is that which has become contaminated
through use with either physical or chemical impurities.

¹ See also OAR 340-111-0000(2) which requires persons to "consult 40 CFR Part 279
and associated Federal Register preambles in addition to Division 111 of these rules to
determine all applicable used oil management requirements."

1 Applying the evidence brought forward at the hearing to these standards shows that
2 the Department has not carried its burden of proving that the Tectyl is a hazardous waste
3 rather than a used oil.

4 1. Tectyl meets the "origin" criteria in the used oil definition

5 Though the Department attempted to dispute at the hearing that Tectyl's origin is as
6 an "oil," the Tectyl products at issue clearly fall within the terms of the Oregon regulatory
7 definition of "oil" as including "lubricating oil" and "any other petroleum related product."
8 OAR 340-108-0002(11)(incorporated into the Department's Used Oil Management
9 Regulations by OAR 340-111-0020(1)). Furthermore, the testimony of Cascade General's
10 expert chemist, Kent Patton, showed that Tectyl is indeed refined from crude oil. In fact,
11 his testimony was that the Tectyl products are closer to unrefined crude oil than is 10W-40
12 motor oil (which is unquestionably an "oil"), because Tectyl contains more heavy weight
13 aliphatic hydrocarbons. Mr. Patton testified that Tectyl 502C and 511M are similar to motor
14 oil in many respects, including the fact that the additives sodium and zinc are found as well
15 in motor oil. The primary distinction between Tectyl 502C and 511M, on the one hand, and
16 motor oil, on the other hand, is that Tectyl contains more paraffin waxes, consistent with its
17 use to preserve mothballed equipment. The origin of Tectyl is crude oil. Even Rick Volpel,
18 the Department's Hazardous Waste/Used Oil Policy Analyst, admitted that Tectyl is
19 "primarily oil." Tectyl easily meets this first criteria for used oil.

20 2. Tectyl meets the "use" criteria for used oil

21 The "use" criteria is where the Department put up its biggest fight, but still the
22 preponderance of the evidence shows that Tectyl was not used for any of the purposes
23 expressly excluded from the used oil definition. The regulations and commentary show that
24 the definition of "use" for the used oil rules is broad and flexible, and the exceptions are
25 narrow and specific.

26 Uses excluded from Oregon's regulatory definition are limited to certain kinds of used

1 oil/hazardous waste mixtures, wastewaters from which oil has been recovered, oil
2 contaminated media or debris, oil based products used as solvents, and antifreeze.
3 OAR 340-111-0020(2)(c). The evidence shows that Tectyl is not used for any of these
4 "excluded" purposes. Mr. Patton testified that it is not used as an antifreeze or solvent.
5 Mr. Volpel and Environmental Specialist Rebecca Paul agreed that the product is not used as
6 a solvent, even though there are components in it (as there are in 10W-40 motor oil) which
7 are understood to be solvents. There is no evidence whatsoever that Tectyl fits any of the
8 exclusions from the "use" criteria.

9 Uses included in the federal and state regulatory definitions include lubricants,
10 coolants, hydraulic fluids and "other similar uses." 40 CFR § 279.1 The phrase "other
11 similar uses" is sufficiently broad to include Tectyl. According to the EPA pamphlet
12 (Ex. 3), "use" includes use in engines, such as crankcase oils and piston-engine oils. The
13 evidence shows that the Tectyl was used like a motor oil, for lubricating purposes. The
14 Navy specifications for the mothballing of the U.S. Navy ship, *USNS Andrew J. Higgins*
15 (*"Higgins"*), describe Tectyl at certain points as a "lube oil," and in particular describe how
16 the product is used to fill some of the ship engines' "lube oil systems" in preparation for
17 mothballing. Ex. 5, p. 203-3, ¶ 7.3.4.3; p. 203-4, ¶ 7.3.8.5; p. 203-5, ¶ 7.3.9.2.²

18 Mr. Patton's uncontradicted testimony was that the products have lubricating
19 properties insofar as they create a film to lessen friction and diffuse heat. Because they were
20 used in mothballing the *Higgins*, they also have protective and anti-corrosive properties. But
21 these properties do not exclude it from the definition of used oil. Nothing in the federal or
22 Oregon regulations supports excluding a product from the used oil rules on the ground that it
23 has, in addition to its lubricant properties, protective and anti-corrosive properties.

24 _____
25 ²Tectyl 502C is identified in the specifications as MIL-C-16173, Grade 2. Tectyl 511M
26 is identified as MIL-C-16173, Grade 5. Exs. 5, 104, 105.

1 3. Tectyl meets the "contamination" criteria for used oil

2 The used Tectyl had been circulated through the ship's engines and machinery and
3 had thereby become contaminated. The surviving sample of the Tectyl 502C, Ex. 11, is
4 visibly contaminated with grit and dirt. The Department has asserted in these proceedings
5 that Tectyl is applied like paint, and that no excess should be available for recovery after
6 use. (DEQ Brief, p. 8) This contention is disproved by the Navy specifications, which
7 direct Cascade General to "fill" certain engine systems with the products and to "drain" and
8 collect excess product from those systems. Ex. 5, p. 202-3, ¶ 7.3.3.2, 7.3.3.3; p. 203-4,
9 ¶ 7.3.6.6; p. 203-6, ¶ 7.3.9.7; see, Ex. 5, p. 203-4, ¶ 7.3.6.6.

10 The Department argues that an oil is not "used" unless it is fully "spent and
11 unsuitable for [its] original intended purpose." (DEQ Brief, p. 7) There is nothing in the
12 statutes or regulations to support this interpretation of "use." If, to be "used," an oil must be
13 "spent and unsuitable for its original purpose," the Department should amend the definition
14 of used oil accordingly. Oliver v. Employment Division, 40 Or App 487, 493 (1979)(an
15 administrative agency cannot take a purely case-by-case approach to articulating policy;
16 policy must be expressed in rules). This proceeding is not a rulemaking. The Department
17 cannot penalize Cascade General based on a novel gloss on the used oil rule.
18 "Contamination" as a result of circulation through the ship engines is sufficient for the used
19 oil definition.

20 The Department has raised questions about an apparent discrepancy in the amount of
21 used Tectyl generated by the *Higgins* project and the amount of Tectyl delivered to Oil Re-
22 Refining. The record shows that, on May 2, 1996, Cascade General faxed a request to Oil
23 Re-Refining to accept a shipment of "approximately" 41 55-gallon barrels of Tectyl, or
24 approximately 2,255 gallons. Ex. 103. The testimony at the hearing was that Oil Re-
25 Refining is not licensed to accept hazardous waste. Consequently, it could accept the Tectyl
26 only if it was a used oil. In response to a request from Oil Re-Refining, Cascade General

1 had a hazardous waste determination conducted on samples of the two Tectyl products. The
2 results of those tests covering toxicity characteristic leaching procedure ("TCLP") for metals
3 and ignitability, completed on May 8, 1996, are attached to a Waste/Materials Profile
4 prepared by a Cascade General employee. Ex. 6. The test results identify the products as
5 Tectyl 502C and 511M, and the Waste/Materials Profile certifies that the waste is "used oil."
6 A Cascade General employee signed the Waste/Materials Profile on May 30, 1996. The Oil
7 Re-Refining invoice and bill of lading show that 2,775 gallons were picked up on May 30,
8 1996. Ex. 101, 102. The Cascade General purchase order identifies the delivered product
9 as Tectyl. Ex. 110.

10 What is clear from the record is that, in the Waste/Materials Profile, Cascade General
11 certified to Oil Re-Refining on May 30, 1996 that the product it was recycling was used
12 Tectyl. While the May 2, 1996 fax identifies "approximately" 2,225 gallons of used
13 product, during the ensuing 28 days before Oil Re-Refining's pick up it is possible that the
14 *Higgins* project generated more used Tectyl to bring the total to 2,775 gallons. Given that
15 the May 2, 1996 statement of the volume of Tectyl was merely an approximation, it is
16 impossible to say that the May 30, 1996 pick up did not consist entirely of used Tectyl.
17 Certainly there is no evidence that the May 30, 1996 certification by Cascade General's
18 employee that the product consisted entirely of used Tectyl is false. The Department's
19 contention about "missing" Tectyl or the recycling of unused Tectyl is pure speculation and
20 cannot support thousands of dollars in penalties.³

21 _____
22 ³ The Department's brief asserts that the Waste/Materials Profile falsely states that the
23 Tectyl was not ignitable. (DEQ Brief, p. 6) This was obviously a simple and harmless error
24 by Cascade General's employee; the lab test results attached to the Waste/Materials Profile
25 plainly show the product was ignitable. There was no misrepresentation. The Department
26 also contends that the Waste/Materials Profile states that no sample was taken of the product.
(DEQ Brief, p. 6) This is incorrect. The form states "Has Sample Been Taken? Yes No"
There is a line through the word "No," indicating that the answer was "Yes." And, in any
event, it is obvious that a sample was taken in order to conduct the tests shown in the

1 The Tectyl was an oil used for a purpose recognized by the used oil rules. The
2 Department has failed to show by a preponderance of the evidence that the Tectyl was a
3 hazardous waste rather than a used oil.

4 C. Violation 1 is not supported by the evidence because Cascade General conducted a
5 hazardous waste determination

6 Regardless of how the Tectyl is characterized, there is no evidence to support
7 Violation 1, which charges a failure to conduct a hazardous waste determination. Violation 1
8 specifically charges failure to make such a determination as to (1) the Tectyl which Cascade
9 General recycled and (2) the Tectyl/used oil mixture after pickup by Oil Re-Refining.

10 The evidence is that Oil Re-Refining sent a truck to Cascade General on May 30,
11 1996 to pick up the Tectyl. At the time the truck already contained approximately 600
12 gallons of used oil from Campbell Crane and Rigging Service, Inc. ("Campbell Crane"), and
13 Oil Re-Refining's employee added the Tectyl to that used oil. In its Post-Hearing
14 Memorandum, the Department now concedes that Cascade General had no duty to test the
15 Tectyl/used oil mixture, because by the time the used Tectyl was mixed with the Campbell
16 Crane used oil they were within the control of Oil Re-Refining. (DEQ Brief, p. 15) The
17 Department has conceded that this portion of Violation 1 lacks support and is in error.

18 The other element of Violation 1 -- that there was no hazardous waste determination
19 conducted on the Tectyl alone -- is also in error. Exhibits 107 and 108, which are from the
20 Department's own file, are hazardous waste tests that Cascade General had conducted on the
21 Tectyl 502C and 511M. *See also*, Ex. 6. They show that the used Tectyl met the
22 ignitability criteria for hazardous waste, but not the toxicity characteristic for metals based on
23 the TCLP test. The characteristics of corrosivity, reactivity and non-metals toxicity were
24 eliminated by Cascade General by its knowledge of the Tectyl products and how they were
25 _____
26 attached reports. Ex. 6.

1 used. While a hazardous waste determination is not required for used oil, the fact is that
2 Cascade General did complete a hazardous waste determination. The Department put
3 forward no evidence supporting Violation 1; indeed, the only evidence in the record is that
4 there was no violation. For these reasons, Violation 1 should be vacated.

5 D. Cascade General was not required to manage the Tectyl as a hazardous waste

6 Violation 2 is for failure to manage the Tectyl as a hazardous waste, and specifically
7 for failure to generate a hazardous waste manifest for that product. As shown in Cascade
8 General's pre-hearing memorandum and at the hearing (see Ex. 2), used oil is exempt from
9 the hazardous waste management rules. 40 CFR § 261.6(a)(4). In particular, there is no
10 requirement to prepare a hazardous waste manifest under the used oil rules unless the used
11 oil is destined for "disposal." OAR 340-111-0010(2)(a). The Department's definition of
12 disposal, OAR 340-100-0010(h), contemplates a release of a hazardous material into or on
13 land or water. Since Cascade General sent the used oil to be recycled and it understood to
14 be blended and ultimately marketed as fuel, the Tectyl was not "disposed" of. Thus, because
15 Cascade General recycled its Tectyl as a used oil rather than disposing of it, Violation 2
16 lacks support and must be vacated.

17 E. If the characterization of Tectyl is a close question, Cascade General should not be
18 penalized

19 Testimony at the hearing shows that the boundaries of the used oil definition are not
20 at all clear. Mr. Volpel and Ms. Paul disagreed on whether buoyancy oil -- which has been
21 characterized by the EPA as used oil (Ex. 3) -- should be treated by the DEQ as a used oil.
22 Mr. Volpel said yes; Ms. Paul said no. If the Department's own employees do not agree on
23 the scope of the rule, Cascade General should not be subject to thousands of dollars of fines

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1 on the close question of Tectyl's characterization.⁴

2 As to the Tectyl, Mr. Volpel stated that his concern is that rust preventatives
3 generally will become characterized as used oil. He stated that some rust preventatives may
4 have high level of metals and would be unsafe to handle as fuel oil. But if rust preventatives
5 with high metal content are a problem, and if those used products would otherwise meet the
6 criteria for used oil, then the agency should amend its regulations to expressly state that such
7 rust preventatives are excluded. It did just that with regard to antifreeze and products used
8 as solvents. As noted above, Oregon courts prohibit *ad hoc* policymaking by administrative
9 agencies. Cascade General had no way of knowing that a used oil-based rust preventative
10 meeting the criteria for used oil could not be managed as used oil. Given this fact, Cascade
11 General should not be penalized.

12 In any event, Mr. Volpel's concern about the metal content of used rust preventatives
13 is not implicated by the treatment of Tectyl as used oil. He admitted at the hearing that the
14 lab tests of Tectyl did not show high levels of metals. Furthermore, Oil Re-Refining, and
15 other used oil processors which market used oil as fuel, commonly handle used oils that are
16 ignitable or otherwise considered "off-specification" fuels.⁵ Thus, even if the mixture of the

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18 ⁴The Department's brief suggests that the enforcement staff consulted with Mr. Volpel
19 before issuing the NOV in this case. (DEQ Brief, p. 10) That is not correct. Mr. Volpel
20 testified that he was first consulted regarding this matter many months after the December
21 1997 NOV, during the preparation for the contested case hearing.

22 ⁵The federal used oil rules set out a series of "specifications" for used oil, including one
23 for "flash point." Used oil with a flash point of 100° F and above is considered "on-
24 specification," while used oil with a flash point of less than 100° F is considered "off-
25 specification." 40 C.F.R. § 279.11 (Table 1). The federal used oil rules define a
26 "marketer" as a person or entity who directs a shipment of "off-specification" oil to a used
oil "burner" or who first claims that the used oil that is to be burned for energy recovery
meets the used oil specification set forth in § 279.11. 40 C.F.R. § 279.70(a). Marketers are
allowed to initiate a shipment of off-specification used oil only to an oil "burner" who,
among other things, will burn the used oil in an industrial furnace, or certain industrial
boilers identified in § 279.61(a). 40 C.F.R. § 279.71. These restrictions on marketers are

1 used Tectyl and the other used oil from Campbell Crane were still "ignitable," Cascade
2 General's management of the Tectyl as a used oil did not present a threat to the public
3 different from that of off-specification used oil fuels, for example. Recycling the used Tectyl
4 as a used oil did not place the public at undue risk.

5 Finally, testimony at the hearing showed that in 1996 the Department was closely
6 scrutinizing Oil Re-Refining and its sister company, Fuel Processors, and Oil Re-Refining
7 could not afford to make a mistake. We understand that neither company was licensed to
8 accept hazardous waste. Yet Oil Re-Refining did accept the Tectyl after reviewing an MSDS
9 and lab reports, concluding that it was a used oil. And to add insult to injury, Oil Re-
10 Refining in fact was not penalized for accepting the Tectyl. If the question of the
11 characterization of Tectyl was close enough to excuse Oil Re-Refining, then Cascade General
12 itself should not be penalized.

13 F. The Department's other arguments do not support the NOV

14 The Department's brief contains a series of arguments which only serve to distract
15 from the key issues in the matter. Cascade General will briefly address those arguments
16 here.

17 The Department suggests subterfuge or outright falsehood on Cascade General's part
18 in asserting in its December 15, 1997 answer that the Tectyl was recycled as unused product.

19 _____
20 to protect the environment by restricting the burning of off-specification used oil to industrial
21 furnaces and boilers that can burn it without unduly polluting the environment. Under the
22 used oil rules, "transporters," "used oil processors and re-refiners" and "burners" must also
23 comply with the restrictions regarding off-specification used oil that apply to "marketers."
24 40 C.F.R. § 279.40(d)(4), § 279.50(b)(4), and § 279.61. Cascade General was not a
25 marketer, processor/re-refiner, transporter or burner of the Tectyl used oils at issue. It
26 merely offered them as "off-specification" used oils to Oil Re-Refining, which either itself or
through its sister company, Fuel Processors, blended them and sold the blended used oils as
"on-specification" or "off-specification" used oil to others. Thus, Cascade General's
management of the Tectyl used oils at issue complied with the terms of the applicable used
oil rules and was fully protective of the environment.

1 There is absolutely no factual basis for these charges. Alan Sprott, Cascade General's
2 Manager of Environmental Services, fully testified at the hearing regarding his dealings with
3 the Department, his discovery of an actual sample of the used Tectyl, and his subsequent
4 investigation of archived documents which showed that the product had been recycled as used
5 oil. The Tectyl had been sent to Oil Re-Refining more than a year before the Department
6 raised questions about its management. It is not surprising that Cascade General did not
7 have the relevant documents immediately at hand.

8 The Department also discusses at length Cascade General's December 15, 1997
9 answer (Ex. B), which raises issues different from those raised at the hearing -- i.e., it does
10 not state that the Tectyl was used oil. The Department suggests it was prejudiced by
11 Cascade General's later assertion -- following internal investigation -- that the Tectyl was a
12 used oil. Nothing could be further from the truth. Cascade General showed that the product
13 was "used oil" in a letter mailed April 16, 1998 (Ex. 5), more than nine months before the
14 contested case hearing. The Department had ample time to analyze this issue before the
15 hearing. Even if Cascade General had raised the used oil issue earlier, in its answer, there
16 would not have been any impact on the agency's actions. By the time Cascade General
17 submitted its answer, the Department had already acted, issuing the NOV on November 18,
18 1997.

19 The Department's brief is full of statements that Cascade General "should have" taken
20 certain actions in managing the Tectyl. These statements have no basis in the law or
21 regulations, and are not relevant to the alleged violations. These portions of the brief should
22 be ignored.

23 As an example, the Department's brief suggests that Cascade General failed to follow
24 required procedures because it did not conduct a hazardous waste determination until
25 requested to do so by Oil Re-Refining. (DEQ Brief, p. 4) Because the Tectyl was used oil,
26 no hazardous waste determination was required at all. And, in any event, the Department

1 cites no regulation supporting the contention that the hazardous waste determination was "too
2 late." Finally, the timing of the hazardous waste determination is not cited as a violation in
3 the NOV, and so is irrelevant.

4 The Department states that Cascade General "should have contacted DEQ to inquire
5 how the Tectyl should be managed." (DEQ Brief, p. 14) Again, this suggests that
6 regulations require such a call. They do not. The regulations contemplate that a used oil
7 generator must make its own determination of whether a used product is used oil, based on
8 the MSDS and other information available to it. Cascade General cannot be penalized for
9 making its own determination regarding the Tectyl.

10 G. Conclusion

11 Tectyl 502C and 511M, when used as they were by Cascade General on the *Higgins*,
12 meet the regulatory criteria for used oil. The Department is evidently concerned that if it
13 treats used Tectyl as a used oil, other more hazardous used rust preventatives will escape
14 treatment as hazardous waste. If that is the case, the regulations should be clarified to
15 exclude such rust preventatives from the used oil rules. Because the regulations could not
16 and did not alert Cascade General that the used Tectyl should be excluded from management
17 as a used oil, Cascade General respectfully requests that the NOV should be vacated.

18 DATED: March 16, 1999.

19 Respectfully submitted,

20
21 

22 John M. Schultz, OSB #91419
23 Lori Irish Bauman, OSB #87161
24 Of Attorneys for Respondent
25 Cascade General, Inc.
26

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

RECEIVED
AUG 06 1999

IN THE MATTER OF:
CASCADE GENERAL, INC.
an Oregon corporation,

Respondent.

EXCEPTIONS AND BRIEF
OFFICE OF THE DIRECTOR
NO. HW-NWR-97-176
MULTNOMAH COUNTY

ORD 180761934

Pursuant to OAR 340-011-0032(4)(a), The Department of Environmental Quality (Department and Appellant) takes exception to certain findings and conclusions set forth in the "Hearing Order Regarding Assessment of Civil Penalty" (Hearing Order) issued by Hearings Officer, Lawrence S. Smith, in the matter of Cascade General, Inc. (Cascade), an Oregon corporation, in Case No. HW-NWR-97-176 as follows:

EXCEPTION 1

The Department excepts to the Hearing Officer's conclusion that Cascade made a "sufficient hazardous waste determination" on Cascade's Tectyls [Hearing Order page 8, Paragraph 3].

BRIEF:

In the Notice of Violation, Compliance Order, and Assessment of Civil Penalty (Notice) ([WMC/] HW-NWR-97-176), the Department cited Cascade for violating OAR 340-102-011(2) by failing to make a complete and accurate hazardous waste determination for each solid waste "residue" generated by Cascade, in the manner required by rule. The Department assessed a \$4,500 civil penalty against Cascade for that alleged violation.

The Department agrees that Cascade knew that its Tectyl wastes had a "low flash point," and that Cascade also had a very limited number of other analyses made on the wastes at the urging of Cascade's waste hauler.

///

Attachment G - 6 pages

A

1 There are two important parts of the hazardous waste determination rule that the
2 Hearings Officer did not consider. First, a generator must determine if a residue is a
3 hazardous waste using the following method . . ." (emphasis added). Cascade did not
4 follow the hazardous waste determination method required by rule – all Cascade did was a
5 few analyses that would possibly be part of that method. To be of value, a hazardous waste
6 determination must identify all relevant hazards associated with a waste so that the waste may
7 be managed safely and in a manner which protects the environment during
8 accumulation/storage, transport, recycling, treatment and/or disposal of the waste

9 Second, Cascade did not use the analyses to determine if its Tectyls were "hazardous
10 wastes," nor did Cascade determine if its Tectyls were not "hazardous wastes."

11 By concluding that the Cascade had done an adequate hazardous waste determination
12 merely by identifying that the material had a "low flash point" and by analyzing for a very
13 limited number of possible contaminants, the Hearings Officer implies that the term
14 "hazardous waste" should be used in the colloquial sense of "dangerous." The Department
15 disagrees. In the rules, a generator must determine whether the material meet a very
16 specifically-defined set of qualities and decide whether the material is a "hazardous waste." If
17 the material is a hazardous waste, as opposed to being merely dangerous, it must be
18 appropriately labeled "hazardous waste" and managed in a very-defined, highly-regulated
19 manner.

20 A complete and accurate hazardous waste determination is the basis for all subsequent
21 waste management decisions. If the rules were read to allow a person to conduct a couple of
22 tests without further inquiry into whether the material is a "hazardous waste" the generator
23 could avoid the hazardous waste management laws altogether, mismanage the waste, and
24 arrange for improper disposal of the waste. In fact the Hearings Officer found that Cascade
25 "should have prepared Hazardous Waste Manifests for [the Tectyl wastes] and handled them
26 accordingly." [Hearing Order, page 8, paragraph 2]. Perhaps if Cascade had done a
27 hazardous waste determination, they would have discovered this requirement.

1 **PROPOSED ALTERNATIVE FINDINGS AND CONCLUSION:**

2 The Department requests that the Commission reverse the Hearings Officer's
3 conclusion, and find that Cascade General, Inc. did violate OAR 340-102-011(2), and is liable
4 for a civil penalty in the amount of \$4,500 for failing to make a complete and accurate
5 hazardous waste determination for each solid waste residue Cascade generated, as is set
6 forth in the Notice.

7 The Department also requests that the Commission affirm an interpretation of rule that
8 a hazardous waste determination made pursuant to OAR 340-102-011 mandates a generator
9 to reach a conclusion that a residue is or is not a hazardous waste, by following the method
10 provided for by rule

11 **EXCEPTION 2**

12 The Department takes exception to the Hearing Officer's conclusion that the civil
13 penalty calculation "P" factor be +3 rather than +5 [Hearing Order Page 8, Paragraph 4).

14 **BRIEF:**

15 The Department believes that the Hearings Officer erred as a matter of law by
16 misreading OAR 340-012-045(c)(A)(vi) in that he considered aggravating the penalty based
17 only on "Class I violations" and not "Class I equivalents. OAR 340-12-045(c)(A)(vi) says that
18 the appropriate prior significant action civil penalty calculation "P" factor should be +5 for four
19 Class Ones or equivalents. The definition of Class I equivalent at OAR 340-12-030(1)
20 includes (every) two Class Two violations. The Hearings Officer found a total of two Class I
21 violations and four Class II violations in evidence as described in Findings 11 and 12 on
22 Pages 3 and 4 of the Hearing Order. By definition, the four Class II violations equate to two
23 (2) Class I equivalents, which when added to the two (2) Class I violations brings the total to
24 four (4) Class I prior significant actions (violations) or equivalents. Pursuant to OAR 340-12-
25 045(c)(A)(vi), the appropriate prior significant action civil penalty calculation "P" factor should
26 be +5 for four Class Ones or equivalents.

27 ///

1 **PROPOSED ALTERNATIVE FINDINGS AND CONCLUSION:**


2 The Department requests that the Commission reverse the Hearings Officer's
3 conclusion, and find that a "P" factor value of +5 is appropriate and should be used in
4 calculating the appropriate amount of each civil penalty assessed against Cascade.

5 That would result in a \$4,500 civil penalty for (re-instated) Violation 1, and a \$9,000 civil
6 penalty for Violation 2 (after the EB factor is retracted pursuant to the Hearing Order).

7 **PROPOSED ALTERNATIVE ORDER**

8 The Department requests that the Commission adopt the preceding Proposed
9 Alternative Findings and Conclusion(s), and enter a Final Order assessing a total of \$13,500
10 in civil penalties against Cascade General, Inc., plus interest until paid in full.

11 DATED August 6, 1999

12
13 

14 _____
15 Les Carlough, Manager
16 Statewide Enforcement Section, DEQ
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Certificate of Service

I certify that I served a true and correct copy of the attached EXCEPTIONS AND BRIEF on each of the following:

Environmental Quality Commission
c/o Susan M. Greco
DEQ Rules Coordinator
811 S.W. Sixth Avenue
Portland, Oregon 97204

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(VIA FAX 226-0079)

The Honorable Lawrence S. Smith
Hearings Officer
(VIA FAX 238-5410)

DATED August 6, 1999



Larry M. Schurr
Environmental Law Specialist
Special Investigator
Enforcement Section, DEQ



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

July 7, 1999

Larry Schurr
Department of Environmental Quality
2020 S.W. 5th, Suite 400
Portland OR 97201

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland OR 97201-6618

RE: Appeal to Environmental Quality Commission

Dear Mr. Schurr and Ms. Bauman:

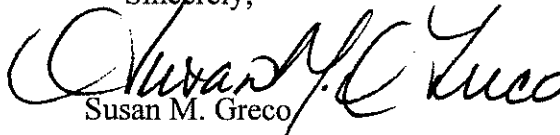
On July 6, 1999, the Environmental Quality Commission received the Department of Environmental Quality's and Cascade General's timely request for administrative review by the Commission in DEQ Case No. HW-NWR-97-176.

Pursuant to OAR 340-011-0132, the Department must file exceptions and brief within thirty days from the filing of the request (August 5, 1999). The exceptions must specify those findings and conclusions that you object to and include alternative proposed findings. Once your exceptions have been received, Cascade General must file its exceptions and answer brief within 30 days. I have enclosed a copy of the applicable administrative rules.

To file exceptions and briefs, please send to Susan Greco, on behalf of the Environmental Quality Commission, at 811 S.W. 6th Avenue, Portland, Oregon, 97204.

After the parties file exceptions and briefs, this item will be set for Commission consideration at a regularly scheduled Commission meeting, and the parties will be notified of the date and location. If you have any questions on this process, or need additional time to file exceptions and briefs, please call me at 229-5213 or (800) 452-4011 ext. 5213 within the state of Oregon.

Sincerely,


Susan M. Greco
Rules Coordinator

Attachment H - 1 page

Received
JUL 07 1999

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OFFICE OF THE DIRECTOR
BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF
CASCADE GENERAL, INC.,
an Oregon corporation,

Respondent.

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No. HW-NWR-97-176
MULTNOMAH COUNTY

NOTICE OF APPEAL OF
CASCADE GENERAL, INC.

Respondent Cascade General, Inc. hereby states its intention to seek Commission review of the Hearing Officer's Order Assessing Penalty, which was served by mail on June 7, 1999.

DATED this 6th day of July, 1999.



John M. Schultz, OSB #91419
Lori Irish Bauman, OSB #87161
Of Attorneys for Respondent
Cascade General, Inc.

Attachment I - 2 pages

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CERTIFICATE OF SERVICE

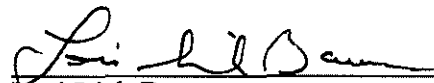
I hereby certify that I served the foregoing NOTICE OF APPEAL OF CASCADE
GENERAL, INC. on the following parties:

Environmental Quality Commission
c/o Susan Greco, Rules Coordinator
811 SW 6th Ave.
Portland, OR 97204

Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW 5th Ave., Suite 1400
Portland, OR 97201

by mailing a true and correct copy thereof to said parties on the date stated below.

DATED July 6, 1999.



Lori Irish Bauman
Of Attorneys for Respondent Cascade
General, Inc.

CERTIFICATE OF SERVICE

Certificate of Service

I certify that I served a true and correct copy of the attached NOTICE OF APPEAL OF HEARING ORDER REGARDING ASSESSMENT OF CIVIL PENALTY on each of the following:

Environmental Quality Commission
c/o Susan M. Greco
DEQ Rules Coordinator
811 S.W. Sixth Avenue
Portland, Oregon 97204

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(VIA FAX 226-0079)

The Honorable Lawrence S. Smith
Hearings Officer
(VIA FAX 238-5410)

DATED July 6, 1999

Larry M. Schurr
Environmental Law Specialist
Special Investigator
Enforcement Section, DEQ

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

| | | |
|-------------------------------|---|--------------------------|
| IN THE MATTER OF: |) | HEARING |
| |) | ORDER REGARDING |
| |) | ASSESSMENT OF |
| Cascade General, Inc., |) | CIVIL PENALTY |
| an Oregon Corporation, |) | NO. HW-NWR-97-176 |
| Respondent |) | MULTNOMAH COUNTY |

BACKGROUND

A Notice of Violation, Compliance Order and Assessment of Civil Penalty was issued November 18, 1997, under Oregon Revised Statutes (ORS) Chapter 183 and 468.126 through 468.140, and Oregon Administrative Rules (OAR) Chapter 340, Divisions 11 and 12. On December 15, 1997, respondent Cascade General, Inc. (hereinafter, Cascade) appealed the Notice.

A hearing was held in Portland, Oregon, on January 28, 1999, before hearings officer Lawrence S. Smith. Respondent Cascade was represented by its attorneys, John Schulz and Lori Irish Bauman, with three witnesses. Larry Schurr, environmental law specialist, represented DEQ, with two witnesses.

The hearing record remained open until March 16, 1999, for the parties to submit final written arguments, responses, and a reply. Both parties were granted extension of the time limits for submitting their arguments. DEQ's Post-Hearing Memorandum was received by fax on February 24, 1999. Cascade's Post-Hearing Memorandum was received on March 16, 1999. DEQ replied on March 30, 1999, that it had no further argument, so the record was then closed.

ISSUES

Did respondent Cascade General fail to make a hazardous waste determination as required by OAR 340-102-011(2), 340-100-010(2)(z), and 40 CFR 261.2(b)(1)?

Did respondent Cascade General fail to properly manifest hazardous waste transported for disposal, as required by 40 CFR 262.209(a)?

Were the penalties for these violations properly computed as set out in Exhibits 1 and 2 of Exhibit A under OAR 340-12-045, 340-12-068(1)(b), and 340-12-068(1)(e)?

Were Department of Environmental Quality's used oil rules applicable, pursuant to 40 CFR 279.10?

FINDINGS OF FACT

1. Respondent Cascade General, Inc. (Cascade) is an Oregon corporation performing ship repair and conversion and operating under a contract with the Port of Portland on Swan Island in Portland, Oregon. Cascade is licensed as a large quantity hazardous waste generator.

2. On December 15, 1995, Cascade contracted with the United States Navy to prepare the United States Naval Vessel Andrew J. Higgins for storage, or "mothballing". Part of the contract required Cascade to drain all engine oil and replace it with corrosive preventive compounds, specifically Tectyl products 502C and 511M, made by the Valvoline Corporation. The Tectyl products were flushed through the engine compartments to coat the engines and prevent rusting. At least in part of the contract (work specification item 7.3.3.3 at page 202-3), Cascade was instructed to set aside the Tectyl for reuse. A secondary purpose of the Tectyl products was to provide lubrication if the engines were turned on again.

3. The Tectyl products are mainly processed from crude oil products. Tectyl 511M, Class I, is 10 to 15% oxygenated hydrocarbon by weight, 1 to 10% sodium petroleum sulfonate, 45 to 50% aliphatic hydrocarbons (Stoddard type), 25 to 30% petroleum lube oil, and 1 to 5% ethylene or propylene glycol (Exhibit 5). Tectyl 502C is 25 to 30% oxygenated hydrocarbon by weight, 10 to 15% sodium petroleum distillate, 30 to 35% aliphatic hydrocarbons, and 10 to 15% petroleum distillate (Exhibit 5). The oxygenated hydrocarbons are a lubricating soap, with hydrophilic capacity that gives it anti-corrosive qualities. They are commonly used in lubricating and motor oils. Sodium sulfonate is a detergent that is also common in lubricating and motor oils. The burning profile of these substances is very similar to regular motor oil, except the aliphatic hydrocarbons burn at a lower temperature, somewhere between 95 and 110 degrees Fahrenheit and except the Tectyls have more spikes in the profile because the Tectyls contain more paraffin (Exhibit 10). The Tectyls are not considered a paint by its manufacturer because its purpose is not to cover a surface, but to protect it from rust (Exhibit 125). Unlike paint, the Tectyls do not contain binders that allow them to attach to surfaces and were more like a film to rest on surfaces. They can be easily removed by any oil.

4. On April 2, 1996, Cascade ordered 2,530 gallons of Tectyl 502C and 2,035 gallons of Tectyl 511M, with delivery set for April 6, 1996. Cascade flushed the Tectyl through the engines of the Andrew J. Higgins, as required by its contract. After the job, Cascade had 24 55-gallon drums of used Tectyl 511M, 17 drums of used Tectyl 502C, and seven drums of unused Tectyl 511M (Exhibit 5).

5. Cascade contacted Oil Re-Refining Co, Inc., an Oregon company affiliated with Fuel Processors, Inc., an Oregon company that accepts used oil for recycling or reprocessing for burning. Cascade provided Oil Re-Refining with Material Safety Data Sheets from Valvoline on both Tectyl products (Exhibits 104 and 105) that showed

flashpoints of 106 degrees Fahrenheit for both Tectyls. Cascade also requested independent lab tests and provided them to Oil Re-Refining. The results from metal and flashpoint testing showed a flashpoint of 85 degrees Fahrenheit for both Tectyls and no violation of metal concentrations (Exhibits 107 and 108). The Tectyls were not tested for any other hazardous factor. Despite the flashpoints lower than 140 degrees Fahrenheit, which means they exhibited a hazardous waste characteristic, Cascade still considered the used Tectyl as used oil because the chemical composition of the Tectyls was close to that of motor oils and its secondary use in engines was as a lubricant.

6. On May 2, 1996, Cascade asked Oil Re-Refining if it could take the Tectyls (Exhibit 103) and Oil Re-Refining agreed. Oil Re-Refining picked up from Cascade 2,775 gallons of used and unused Tectyls from Cascade and charged Cascade 35 cents per gallon (Exhibit 101). The unused Tectyl was Tectyl 511M that Cascade had no use for after the contract for the Higgins was completed. Oil Re-Refining added the Tectyls from Cascade to 600 gallons of used oil and transported it to Fuel Processors, Inc., for treatment so it could be burned. To increase the Tectyls' flashpoint above 140 degrees Fahrenheit, the Tectyls would have to be diluted with five times the amount of used motor oil.

7. Cascade in its contract with the Port of Portland was required to offer recycling of used marine oil. Cascade recycled mainly oil-contaminated water. Cascade did not recycle the Tectyls because the cost of processing the Tectyls would be higher than what Oil Re-Refining charged.

8. DEQ has investigated Oil Re-Refining and its affiliated company, Fuel Processors. DEQ performed a review of Fuel Processors' records in about June 1997 and learned that Cascade had allowed Oil Re-Refining to take the Tectyls without preparing a Hazardous Waste Manifest, which DEQ believed was required because the flashpoints of the Tectyl products were less than 140 degrees Fahrenheit. Cascade admits that it did not prepare a Hazardous Waste Manifest because it believes the Tectyls were used oil and exempt from the definition of hazardous waste. DEQ also believed that Cascade failed to make a complete and accurate hazardous waste determination for the Tectyl. DEQ does not allege any other basis for concluding that the Tectyls are hazardous waste, besides their lower flashpoints.

9. DEQ's administrator of the used oil rules in Oregon does not believe it was the intent of DEQ to include corrosion inhibitors, such as the Tectyls used by Cascade, in its definition of used oil. The administrator believes that the Tectyls themselves are not so bad, but other corrosion inhibitors contain more toxic substances.

10. Cascade was not required by law to get interpretation from DEQ beforehand regarding whether the used Tectyls were used oil.

11. A Notice of Assessment of Civil Penalty, issued January 9, 1996, imposed a penalty of \$1,400 against Cascade for a Class II violation of violating daily plant site emission limits (Exhibit 111). Cascade paid the penalty rather than appeal.

12. Two Notices of Assessment of Civil Penalty were issued June 18, 1997, against Cascade (Exhibit 112). One imposed penalties totaling \$4,200 for one Class I violation and three Class II violations for failing to clearly mark a container containing hazardous wastes with the date that accumulation in the container began, for failing to mark containers with the words "Hazardous Waste", for failing to maintain adequate records, and for failing to prepare a proper contingency plan. The other Notice imposed penalties totaling \$3,600 for one Class I violation for discharging waste without an NPDES permit. Cascade paid the penalties rather than appeal.

ULTIMATE FINDINGS

Cascade was required to perform a complete Hazardous Waste Manifest on the used and unused Tectyls because the flashpoints of the Tectyls made them hazardous wastes.

The Tectyls did not meet the definition of used oil, which would exempt them from the definition of hazardous waste.

Cascade did perform a Hazardous Waste Determination on both the used and unused Tectyls that were discarded.

APPLICABLE LAW

ORS 466.075 states in part:

(1) The commission may, by rule, require generators of hazardous waste to:

* * * *

(b) Keep records that accurately identify the quantities of such hazardous waste, the constituents thereof, the disposition of such waste and waste minimization activities;

* * * *

(e) Submit reports to the department setting out quantities of hazardous waste generated during a given time period, the disposition of all such waste and waste minimization activities;

* * * *

OAR 340-102-011(2) states in part:

A person who generates a residue as defined in OAR 340-100-010 must determine if that residue is a hazardous waste * * *.

OAR 340-100-010(z) states:

“Residue” means solid waste as defined in 40 CFR 261.2.

40 CFR 261.2(f), as adopted by reference in OAR 340-102-010(2) and OAR 340-100-002(1), states in part:

Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation . . . to demonstrate that the material is not a waste, or is exempt from regulation.

OAR 340-102-041(2) states in part:

* * * Effective January 1, 1992, and annually thereafter, a report shall be submitted to the Department, on a form provided by the Department, or by other means agreed to by the Department, by persons defined as small quantity hazardous waste generators, large quantity hazardous waste generators, and/or hazardous waste recyclers. * * * *
The annual report shall contain: (a) Information required for purposes of notification of hazardous waste activity and/or annual verification of hazardous waste generator status; * * *

OAR 340-108-0002(11) states in part:

“Oil” includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.

ORS 459A.555(5) states in part:

“Used Oil” means a petroleum-based oil which through use, storage or handling has become unsuitable for its original purpose due to the presence of impurities or loss of original properties.

OAR 340-111-0020(2)(c) states in part:

“Used Oil” means any oil that has been refined from crude oil, or any synthetic oil that has been used as a lubricant, coolant (non-contact heat transfer fluids), hydraulic fluid or for similar uses and as a result of such use is contaminated by physical or chemical impurities. Used oil includes, but is not limited to, used motor oil, gear oil, greases, machine cutting and coolant oils, hydraulic fluids, brake fluids, electrical insulation

oils, heat transfer oils and refrigeration oils. Used oil does not include used oil mixed with hazardous waste except as allowed in 40 CFR 279.10(b), oil (crude or synthetic) based products used as solvents, antifreeze, wastewaters from which oil has been recovered, and oil contaminated media or debris.

40 CFR sec. 279.1 states in part:

Used oil means any crude oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

CONCLUSIONS AND REASONS

Hazardous Waste Manifest

Cascade has conceded that it did not prepare and file a Hazardous Waste Manifest on the Tectyls before using some of them and then offering all of them for transport. The first issue is whether Cascade was required to file a Hazardous Waste Manifest and to handle the Tectyls as hazardous waste. There was no disagreement that the Tectyls had a low flashpoint characteristic of hazardous wastes and must be considered such unless Cascade Establishes an exception to the definition. The proponent of a fact has the burden of presenting evidence to support that fact. ORS 183.450(2). Also, the party claiming that a material is not a hazardous waste has the burden of proving it is not and therefore not subject to hazardous waste rules and requirements. See 40 CFR 261.2(f). Cascade had the burden of establishing the exception.

DEQ's Post-Hearing Memorandum correctly disposes of Cascade's two affirmative defenses raised in its answer filed in response to the Notice of Violation, Compliance Order and Assessment of Civil Penalty, issued November 18, 1997. The used Tectyls were clearly not a virgin commercial petroleum fuel, and Cascade has abandoned that defense. The mixing the Tectyls with the used oil in the tanks of Oil Re-Refining did not raise the flashpoint to an acceptable level, so the resulting mixture was still a hazardous waste. The Tectyls would have to be mixed with four times the amount of used oil to raise the flashpoint high enough so it no longer had the characteristic of a hazardous waste. Oil Re-Refining did not do that. Moreover, DEQ properly asserts that the mixing did not occur until it was transferred to Oil Re-Refining and remained a hazardous waste in the care of Cascade until then. Neither alleged defense rebuts the legal obligation of Cascade to prepare the required Hazardous Waste Manifest.

Respondent Cascade's third defense is that the Tectyls were exempted from the hazardous waste regulations as an "used oil". Some of the gallons offered to Oil Re-Refining were unused Tectyl. DEQ's calculation established that the unused Tectyl was included in the wastes recycled with Oil Re-Refining, based on the quantities listed in the invoices. Cascade's documents refer to unused Tectyls in the amount transferred. It

recycled the Tectyls because it no longer had any need for them after the contract was completed. The *possibility* that more was used later does not detract from a conclusion based on the *probability* that the transferred substances included unused Tectyls. Cascade provided no evidence that work was done on the USS Higgins after May 2. As DEQ correctly asserted, 510 gallons of unused Tectyl were also shipped because Cascade had no use for it after completing its work on the Higgins. The unused Tectyls do not meet the definition of being “used” in both the state and federal law, and therefore, were clearly not “used oil” and not exempt from the definition of hazardous waste.

Regarding the Tectyls that were flushed through the engines of the U.S. Higgins, these fluids may have been contaminated by dirt in the machine, but at least one of the specifications says the Tectyls can be used again (work specification item 7.3.3.3 at page 202-3 of Exhibit 5), so Cascade failed to establish that the Tectyls were “used”.

DEQ correctly points out that Valvoline did not market the Tectyls as lubricants, heat transfer fluids, or hydraulic fluids, but the definition does include “or similar uses”. Cascade alleges the flushing of these products through the machinery in order to inhibit corrosion was a similar use because a secondary purpose was to provide lubrication if the engines were turned on again. Rick Volpel, administrator of the used oil program and DEQ’s expert, testified that the definition did not include anti-corrosive substances, such as the Tectyls, as a “similar use” to lubricants, heat transfer fluids or hydraulic fluids. His opinion was that the Tectyls were not used oils because: Their uses were not similar to those of oil, heat transfer fluids, or hydraulic fluids; Their chemical composition was significantly different than that of oils; and Their flashpoints were substantially lower.

DEQ has been given a broad mandate to promulgate rules necessary to carry out its responsibilities in regulating hazardous wastes. See, RCRA--413 (Exhibit 125), which says as part of its definition of “Used Oil”: “Authorized states or regions determine what is considered a ‘similar use’ on a site-specific basis according to whether the material is used and managed in a manner consistent with Part 279 (e.g., used as a buoyant).” DEQ’s interpretation should be given deference if its interpretation is reasonably consistent with the language of the rule. In *Martin v. ODOT*, 122 Or App 271, 274-75, 857 P2d 225 (1993), the court said: “We grant considerable leeway to an agency to interpret its own rules, especially when the legislature has given it a broad mandate to promulgate the rules necessary to carry out its duties and powers. [Cite omitted] Where, as here, that construction is reasonably consistent with the rule and underlying statutes, we defer to ODOT’s own construction of its own rule.” In *City of Klamath Falls v. Environmental Quality Com’n*, 318 Or 532, 870 P2d 825 (1994), the Supreme Court said: “The agency’s interpretation, while arguably providing more protection in certain situations to the fish than the minimum that the statutes demand, nonetheless is fully consistent with the policy purposes of the standard and, thus, is within EQC’s discretionary competence.” The administrator was DEQ’s expert in this area and his opinion must be given deference because his opinion is consistent with policy purposes of the statute. He reasonably relied on the fact that the Tectyls with their Stoddard Type substances were closer to solvents, which are specifically not used oils, than to lubricating oils. Cascade argues that the

Tectyls are closer to what is commonly known as oil than is motor oil, but the difference between the Tectyls and the motor oils is the characteristic of low flashpoint, the very characteristic that makes the Tectyls hazardous wastes. Cascade's argument that the Tectyls are lubricants is rejected because such a use for them is only minor and secondary. Their main purpose was as an anti-corrosive and in DEQ's opinion, should be regulated as a hazardous waste because of the low flashpoints.

The Tectyls did not meet the definition of "used oil" under the above sections of law. Cascade did not establish an exemption to the hazardous waste rules. It should have prepared Hazardous Waste Manifests for them and handled them accordingly.

Hazardous Waste Determination

Cascade did perform a hazardous waste determination. It just discounted the results of such a determination. When assessing this penalty on Cascade, DEQ seems to say that unless Cascade reached the correct conclusion after this determination, it did not make a determination. Cascade did perform such a determination and learned from two sources about the low flashpoints of the Tectyls. At that point, Cascade had determined that the Tectyls were hazardous waste because of their low flashpoints. The second test revealed no metal content that would make it a hazardous waste. During the hearing, DEQ did not allege any other characteristic that would make it a hazardous waste. In its post-hearing memorandum, DEQ first mentions other potential hazardous constituents that Cascade should have tested for. DEQ did not allege any other constituent that Cascade should have tested for. Cascade made a sufficient hazardous waste determination because the determination revealed the Tectyls had a characteristic of hazardous waste.

CIVIL PENALTY

The Notice of Violation, Compliance Order and Assessment of Civil Penalty, issued November 18, 1997, contained an explanation of the calculation of the penalty for offering hazardous waste for transport without a Hazardous Waste Manifest (Exhibit 2 to Exhibit A). This calculation is adopted, except that the P (prior action) factor should be reduced to 3 because there is evidence of only two prior Class One violations against Cascade in Exhibits 111 and 112 (see OAR 340-012-0045(c)(A)). Also excepted from the calculation is the EB factor, which is not supported by evidence in the record. DEQ offered some evidence supporting the EB calculation in its post-hearing memorandum. DEQ did not ask to keep the record open for this evidence, and the evidentiary record was closed before it was offered. Therefore, the evidence for the EB factor is not considered. The total penalty is \$7,800.

The other penalty is not assessed because Cascade did not fail to make a hazardous waste determination, as explained above.

COMPLIANCE ORDER

The Notice of Violation, Compliance Order and Assessment of Civil Penalty, issued November 18, 1997, contained a compliance order, but then in the penalty calculation on Exhibit 2 to Exhibit A, the Notice stated that the violation could not be corrected, so no compliance is ordered.

Dated this 28th day of May, 1999.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith
Lawrence S. Smith
Hearings Officer

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

| | | |
|-------------------------------|---|--------------------------|
| IN THE MATTER OF: |) | |
| |) | |
| |) | ORDER |
| Cascade General, Inc., |) | ASSESSING |
| an Oregon Corporation, |) | CIVIL PENALTY |
| Respondent |) | NO. HW-NWR-97-176 |
| |) | MULTNOMAH COUNTY |


ORDER

IT IS HEREBY ORDERED that Cascade General, Inc., is liable for a total civil penalty of \$7,800, plus interest pursuant to Oregon Revised Statute (ORS) 82.010, from the date this order is signed below until paid; and that if the civil penalty remains unpaid for more than ten (10) days, this order may be filed with each County Clerk and execution shall issue therefor.

If you are not satisfied with this decision, you have 30 days to appeal it to the Environmental Quality Commission. See Oregon Administrative Rule (OAR) 340-11-132. If you wish to appeal the Commission's decision, you have 60 days to file a petition for review with the Oregon Court of Appeals from the date of service of the order by the Environmental Quality Commission. See, ORS 183.480 et seq.

Dated this 28th day of May, 1999.

ENVIRONMENTAL QUALITY COMMISSION


Lawrence S. Smith
Hearings Officer

Return to:
Enforcement Section
Department of Environmental Quality
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

Certificate of Mailing

I certify that I mailed the attached HEARING ORDER REGARDING ASSESSMENT OF CIVIL PENALTY and ORDER ASSESSING CIVIL PENALTY to each of the following persons on 6/7, 1999:

Lori Irish Bauman
Ater Wynne
222 S.W. Columbia, Suite 1800
Portland OR 97201-6618
(Via Certified Mail #P335742315)

Larry Schurr
Department of Environmental Quality
2020 S.W. 4th Avenue
Portland OR 97201



Susan M. Greco
Department of Environmental Quality

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF
CASCADE GENERAL, INC.,
an Oregon Corporation,

Respondent.

)
) No. HW-NWR-97-176
) MULTNOMAH COUNTY
)

) POST-HEARING MEMORANDUM
) OF RESPONDENT CASCADE
) GENERAL, INC.
)

The Oregon Department of Environmental Quality ("DEQ" or the "Department") has imposed a fine against Cascade General, Inc. ("Cascade General") for improper handling of a product which Cascade General in good faith believed to be subject to the state and federal used oil rules. The question to be resolved in this matter is not "what did Cascade know and when did Cascade know it?," as the Department flippantly asserts in its memorandum (DEQ Brief, p. 2). Rather, the issues are whether (1) the Department has shown by preponderance of the evidence that the Tectyl product which Cascade General recycled was a hazardous waste and not used oil, and (2) whether the Department has shown by a preponderance of the evidence that it acted properly in issuing two violations against Cascade General. For the reasons stated below, the Department failed to carry its burden on either point at the hearing on this matter.

Testimony at the hearing reveals some troubling policy issues which further support vacating the violations and penalties. The evidence at the hearing showed (1) that there is disagreement and uncertainty even within the Department about the interpretation and application of the used oil rules, and (2) the Tectyl product, when handled under the used oil rules, does not present a hazard to the public any more substantial than products clearly within the rules, such as off-specification used oil. To enforce \$14,500 in penalties when the

Attachment L - 15 pages

1 government policy is less than clear and the public was not threatened is both unfair and
2 contrary to law.

3 A. The Department has the burden of proving the facts to support the violation, including
4 that the Tectyl was a hazardous waste and not used oil

5 The Department is wrong to attempt to throw the entire burden of proof onto Cascade
6 General. In particular, the Department is incorrect to assert that Cascade General has the
7 burden of proving that the Tectyl was subject to the used oil rules rather than the hazardous
8 waste rules. An Oregon administrative agency has the burden of presenting evidence to
9 support its actions. The standard of proof applied by the decision maker in a contested case
10 proceeding is whether a preponderance of the evidence supports the agency action. Oregon
11 Attorney General's Administrative Law Manual, p. 115-17 (1997).

12 The Department asserts that EPA regulations place on Cascade General the burden of
13 showing that the Tectyl is not a "solid waste" or "waste," citing 40 CFR § 261.2(f). But
14 Cascade General does not contend that the used Tectyl was a solid waste. Rather, it relies
15 on 40 CFR § 261.6(a)(4) (included in Ex. 1) which states

16 "Used oil that is recycled and is also a hazardous waste solely because it
17 exhibits a hazardous characteristic is not subject to the requirements of parts
18 260 through 268 of this chapter [Chapter I of Title 40], but is regulated under
19 part 279 of this chapter."

20 This section exempts used oil from 40 CFR § 261.2(f), the regulation which the Department
21 cites for placing the burden on Cascade General. And the used oil rules at 40 CFR, Part 279
22 do not place on the used oil generator the burden of proving that a product is used oil.
23 Because there is no federal regulatory burden of proof, the state law burden of proof in
24 contested cases applies here.

25 The Department thus has the burden of showing that the Tectyl is a hazardous waste
26 which was improperly managed, rather than a used oil. In any event, as shown below,
Cascade General came forward with more than enough evidence at the hearing to show that

1 the Department's Notice of Violation ("NOV") is unsupported by the facts or the law.

2 B. The Tectyl was a used oil under the Oregon and federal rules

3 The NOV is based on the premise that the used Tectyl product was required to be
4 managed as a hazardous waste. According to testimony at the hearing, the Department
5 reached that conclusion because the product had a low flash point, and so met one of the
6 regulatory characteristics of a hazardous waste. The two violations were for failure to
7 manage the product as a hazardous waste. But evidence at the hearing showed that the NOV
8 should be vacated because the recycled product was a used oil, was properly handled as
9 such, and was exempt from management as a hazardous waste.

10 As shown in Cascade General's Pre-Hearing Memorandum, both state and federal
11 hazardous waste policy treats used oil differently from hazardous waste in order to encourage
12 recycling and re-use of oil.

13 Oregon regulations define "oil" for used oil management and other purposes as
14 follows:

15 "Oil" includes gasoline, crude oil, fuel oil, diesel oil,
16 lubricating oil, sludge, oil refuse and any other petroleum
related product."

17 OAR 340-108-0002(11) (emphasis added). This definition of "oil" is incorporated into the
18 Department's Used Oil Management Regulations (Title 340, Division 111), by OAR 340-
111-0020(1).

19 Federal regulations define "used oil" as follows:

20 "Used oil means any oil that has been refined from crude oil, or
21 any synthetic oil, that has been used and as a result of, such use
is contaminated by physical or chemical impurities."

22 40 CFR § 279.1.

23 The Preamble to the EPA regulations state:

24 "This regulatory definition of use oil is drawn from the statutory
25 definition of used oil found at section 1004(36) of RCRA
26 EPA believes that this definition covers the majority of oils used
as lubricants, coolants (non-contact heat transfer fluids),
emulsions, or for similar uses and are likely to get contaminated

1 through use. *Therefore, specific types of used oils are not*
 2 *identified in the definition."*

3 *Id.* (emphasis added).

4 State regulations define "used oil" as follows:

5 "Used Oil" means any oil that has been refined from crude oil,
 6 or any synthetic oil that has been used as a lubricant, coolant
 7 (non-contact heat transfer fluids), hydraulic fluid or for similar
 8 uses and as a result of such use is contaminated by physical or
 9 chemical impurities. Used oil includes, *but is not limited to,*
 10 used motor oil, gear oil, greases, machine cutting and coolant
 11 oils, hydraulic fluids, brake fluids, electrical insulation oils, heat
 12 transfer oils and refrigeration oils. *Used oil does not include*
 13 used oil mixed with hazardous waste except as allowed in 40
 14 CFR 279.10(b), oil (crude or synthetic) based products used as
 15 solvents, antifreeze, wastewaters from which the oil has been
 16 recovered, and oil contaminated media or debris[.]"

17 OAR 340-111-0020(c) (emphasis added). The detail in this Oregon used oil regulation is
 18 designed to track the EPA Preamble language explaining the federal regulation.¹

19 EPA's own interpretation shows that the definition must be interpreted broadly to
 20 meet the Congressional policy of recycling and reusing oil products. Exhibit 3 is a
 21 November 1996 EPA pamphlet entitled "Managing Used Oil: Advice for Small Businesses."
 22 It reiterates the three criteria for "used oil" from the state and federal definitions of "used
 23 oil" set out above:

24 (1) Origin: Used oil must have been refined from crude oil or made
 25 from synthetic materials.

26 (2) Use: "Oils used as lubricants, hydraulic fluids, heat transfer
 fluids, buoyants, and for other similar purposes are considered used oil. . . .
 EPA's definition . . . excludes products used as cleaning agents or solely for
 their solvent properties, as well as certain petroleum-derived products like
 antifreeze or kerosene."

(3) Contaminants: Used oil is that which has become contaminated
 through use with either physical or chemical impurities.

¹ See also OAR 340-111-0000(2) which requires persons to "consult 40 CFR Part 279
 and associated Federal Register preambles in addition to Division 111 of these rules to
 determine all applicable used oil management requirements."

1 Applying the evidence brought forward at the hearing to these standards shows that
2 the Department has not carried its burden of proving that the Tectyl is a hazardous waste
3 rather than a used oil.

4 1. Tectyl meets the "origin" criteria in the used oil definition

5 Though the Department attempted to dispute at the hearing that Tectyl's origin is as
6 an "oil," the Tectyl products at issue clearly fall within the terms of the Oregon regulatory
7 definition of "oil" as including "lubricating oil" and "any other petroleum related product."
8 OAR 340-108-0002(11)(incorporated into the Department's Used Oil Management
9 Regulations by OAR 340-111-0020(1)). Furthermore, the testimony of Cascade General's
10 expert chemist, Kent Patton, showed that Tectyl is indeed refined from crude oil. In fact,
11 his testimony was that the Tectyl products are closer to unrefined crude oil than is 10W-40
12 motor oil (which is unquestionably an "oil"), because Tectyl contains more heavy weight
13 aliphatic hydrocarbons. Mr. Patton testified that Tectyl 502C and 511M are similar to motor
14 oil in many respects, including the fact that the additives sodium and zinc are found as well
15 in motor oil. The primary distinction between Tectyl 502C and 511M, on the one hand, and
16 motor oil, on the other hand, is that Tectyl contains more paraffin waxes, consistent with its
17 use to preserve mothballed equipment. The origin of Tectyl is crude oil. Even Rick Volpel,
18 the Department's Hazardous Waste/Used Oil Policy Analyst, admitted that Tectyl is
19 "primarily oil." Tectyl easily meets this first criteria for used oil.

20 2. Tectyl meets the "use" criteria for used oil

21 The "use" criteria is where the Department put up its biggest fight, but still the
22 preponderance of the evidence shows that Tectyl was not used for any of the purposes
23 expressly excluded from the used oil definition. The regulations and commentary show that
24 the definition of "use" for the used oil rules is broad and flexible, and the exceptions are
25 narrow and specific.

26 Uses excluded from Oregon's regulatory definition are limited to certain kinds of used

1 oil/hazardous waste mixtures, wastewaters from which oil has been recovered, oil
2 contaminated media or debris, oil based products used as solvents, and antifreeze.
3 OAR 340-111-0020(2)(c). The evidence shows that Tectyl is not used for any of these
4 "excluded" purposes. Mr. Patton testified that it is not used as an antifreeze or solvent.
5 Mr. Volpel and Environmental Specialist Rebecca Paul agreed that the product is not used as
6 a solvent, even though there are components in it (as there are in 10W-40 motor oil) which
7 are understood to be solvents. There is no evidence whatsoever that Tectyl fits any of the
8 exclusions from the "use" criteria.

9 Uses included in the federal and state regulatory definitions include lubricants,
10 coolants, hydraulic fluids and "other similar uses." 40 CFR § 279.1 The phrase "other
11 similar uses" is sufficiently broad to include Tectyl. According to the EPA pamphlet
12 (Ex. 3), "use" includes use in engines, such as crankcase oils and piston-engine oils. The
13 evidence shows that the Tectyl was used like a motor oil, for lubricating purposes. The
14 Navy specifications for the mothballing of the U.S. Navy ship, *USNS Andrew J. Higgins*
15 ("*Higgins*"), describe Tectyl at certain points as a "lube oil," and in particular describe how
16 the product is used to fill some of the ship engines' "lube oil systems" in preparation for
17 mothballing. Ex. 5, p. 203-3, ¶ 7.3.4.3; p. 203-4, ¶ 7.3.8.5; p. 203-5, ¶ 7.3.9.2.²

18 Mr. Patton's uncontradicted testimony was that the products have lubricating
19 properties insofar as they create a film to lessen friction and diffuse heat. Because they were
20 used in mothballing the *Higgins*, they also have protective and anti-corrosive properties. But
21 these properties do not exclude it from the definition of used oil. Nothing in the federal or
22 Oregon regulations supports excluding a product from the used oil rules on the ground that it
23 has, in addition to its lubricant properties, protective and anti-corrosive properties.

24 _____
25 ²Tectyl 502C is identified in the specifications as MIL-C-16173, Grade 2. Tectyl 511M
26 is identified as MIL-C-16173, Grade 5. Exs. 5, 104, 105.

1 3. Tectyl meets the "contamination" criteria for used oil

2 The used Tectyl had been circulated through the ship's engines and machinery and
3 had thereby become contaminated. The surviving sample of the Tectyl 502C, Ex. 11, is
4 visibly contaminated with grit and dirt. The Department has asserted in these proceedings
5 that Tectyl is applied like paint, and that no excess should be available for recovery after
6 use. (DEQ Brief, p. 8) This contention is disproved by the Navy specifications, which
7 direct Cascade General to "fill" certain engine systems with the products and to "drain" and
8 collect excess product from those systems. Ex. 5, p. 202-3, ¶ 7.3.3.2, 7.3.3.3; p. 203-4,
9 ¶ 7.3.6.6; p. 203-6, ¶ 7.3.9.7; see, Ex. 5, p. 203-4, ¶ 7.3.6.6.

10 The Department argues that an oil is not "used" unless it is fully "spent and
11 unsuitable for [its] original intended purpose." (DEQ Brief, p. 7) There is nothing in the
12 statutes or regulations to support this interpretation of "use." If, to be "used," an oil must be
13 "spent and unsuitable for its original purpose," the Department should amend the definition
14 of used oil accordingly. Oliver v. Employment Division, 40 Or App 487, 493 (1979)(an
15 administrative agency cannot take a purely case-by-case approach to articulating policy;
16 policy must be expressed in rules). This proceeding is not a rulemaking. The Department
17 cannot penalize Cascade General based on a novel gloss on the used oil rule.
18 "Contamination" as a result of circulation through the ship engines is sufficient for the used
19 oil definition.

20 The Department has raised questions about an apparent discrepancy in the amount of
21 used Tectyl generated by the *Higgins* project and the amount of Tectyl delivered to Oil Re-
22 Refining. The record shows that, on May 2, 1996, Cascade General faxed a request to Oil
23 Re-Refining to accept a shipment of "approximately" 41 55-gallon barrels of Tectyl, or
24 approximately 2,255 gallons. Ex. 103. The testimony at the hearing was that Oil Re-
25 Refining is not licensed to accept hazardous waste. Consequently, it could accept the Tectyl
26 only if it was a used oil. In response to a request from Oil Re-Refining, Cascade General

1 had a hazardous waste determination conducted on samples of the two Tectyl products. The
 2 results of those tests covering toxicity characteristic leaching procedure ("TCLP") for metals
 3 and ignitability, completed on May 8, 1996, are attached to a Waste/Materials Profile
 4 prepared by a Cascade General employee. Ex. 6. The test results identify the products as
 5 Tectyl 502C and 511M, and the Waste/Materials Profile certifies that the waste is "used oil."
 6 A Cascade General employee signed the Waste/Materials Profile on May 30, 1996. The Oil
 7 Re-Refining invoice and bill of lading show that 2,775 gallons were picked up on May 30,
 8 1996. Ex. 101, 102. The Cascade General purchase order identifies the delivered product
 9 as Tectyl. Ex. 110.

10 What is clear from the record is that, in the Waste/Materials Profile, Cascade General
 11 certified to Oil Re-Refining on May 30, 1996 that the product it was recycling was used
 12 Tectyl. While the May 2, 1996 fax identifies "approximately" 2,225 gallons of used
 13 product, during the ensuing 28 days before Oil Re-Refining's pick up it is possible that the
 14 Higgins project generated more used Tectyl to bring the total to 2,775 gallons. Given that
 15 the May 2, 1996 statement of the volume of Tectyl was merely an approximation, it is
 16 impossible to say that the May 30, 1996 pick up did not consist entirely of used Tectyl.
 17 Certainly there is no evidence that the May 30, 1996 certification by Cascade General's
 18 employee that the product consisted entirely of used Tectyl is false. The Department's
 19 contention about "missing" Tectyl or the recycling of unused Tectyl is pure speculation and
 20 cannot support thousands of dollars in penalties.³

21 _____
 22 ³ The Department's brief asserts that the Waste/Materials Profile falsely states that the
 23 Tectyl was not ignitable. (DEQ Brief, p. 6) This was obviously a simple and harmless error
 24 by Cascade General's employee; the lab test results attached to the Waste/Materials Profile
 25 plainly show the product was ignitable. There was no misrepresentation. The Department
 26 also contends that the Waste/Materials Profile states that no sample was taken of the product.
 (DEQ Brief, p. 6) This is incorrect. The form states "Has Sample Been Taken? Yes No"
 There is a line through the word "No," indicating that the answer was "Yes." And, in any
 event, it is obvious that a sample was taken in order to conduct the tests shown in the

1 The Tectyl was an oil used for a purpose recognized by the used oil rules. The
2 Department has failed to show by a preponderance of the evidence that the Tectyl was a
3 hazardous waste rather than a used oil.

4 C. Violation 1 is not supported by the evidence because Cascade General conducted a
5 hazardous waste determination

6 Regardless of how the Tectyl is characterized, there is no evidence to support
7 Violation 1, which charges a failure to conduct a hazardous waste determination. Violation 1
8 specifically charges failure to make such a determination as to (1) the Tectyl which Cascade
9 General recycled and (2) the Tectyl/used oil mixture after pickup by Oil Re-Refining.

10 The evidence is that Oil Re-Refining sent a truck to Cascade General on May 30,
11 1996 to pick up the Tectyl. At the time the truck already contained approximately 600
12 gallons of used oil from Campbell Crane and Rigging Service, Inc. ("Campbell Crane"), and
13 Oil Re-Refining's employee added the Tectyl to that used oil. In its Post-Hearing
14 Memorandum, the Department now concedes that Cascade General had no duty to test the
15 Tectyl/used oil mixture, because by the time the used Tectyl was mixed with the Campbell
16 Crane used oil they were within the control of Oil Re-Refining. (DEQ Brief, p. 15) The
17 Department has conceded that this portion of Violation 1 lacks support and is in error.

18 The other element of Violation 1 -- that there was no hazardous waste determination
19 conducted on the Tectyl alone -- is also in error. Exhibits 107 and 108, which are from the
20 Department's own file, are hazardous waste tests that Cascade General had conducted on the
21 Tectyl 502C and 511M. See also, Ex. 6. They show that the used Tectyl met the
22 ignitability criteria for hazardous waste, but not the toxicity characteristic for metals based on
23 the TCLP test. The characteristics of corrosivity, reactivity and non-metals toxicity were
24 eliminated by Cascade General by its knowledge of the Tectyl products and how they were

25 _____
26 attached reports. Ex. 6.

1 used. While a hazardous waste determination is not required for used oil, the fact is that
 2 Cascade General did complete a hazardous waste determination. The Department put
 3 forward no evidence supporting Violation 1; indeed, the only evidence in the record is that
 4 there was no violation. For these reasons, Violation 1 should be vacated.

5 D. Cascade General was not required to manage the Tectyl as a hazardous waste

6 Violation 2 is for failure to manage the Tectyl as a hazardous waste, and specifically
 7 for failure to generate a hazardous waste manifest for that product. As shown in Cascade
 8 General's pre-hearing memorandum and at the hearing (see Ex. 2), used oil is exempt from
 9 the hazardous waste management rules. 40 CFR § 261.6(a)(4). In particular, there is no
 10 requirement to prepare a hazardous waste manifest under the used oil rules unless the used
 11 oil is destined for "disposal." OAR 340-111-0010(2)(a). The Department's definition of
 12 disposal, OAR 340-100-0010(h), contemplates a release of a hazardous material into or on
 13 land or water. Since Cascade General sent the used oil to be recycled and it understood to
 14 be blended and ultimately marketed as fuel, the Tectyl was not "disposed" of. Thus, because
 15 Cascade General recycled its Tectyl as a used oil rather than disposing of it, Violation 2
 16 lacks support and must be vacated.

17 E. If the characterization of Tectyl is a close question, Cascade General should not be
 18 penalized

19 Testimony at the hearing shows that the boundaries of the used oil definition are not
 20 at all clear. Mr. Volpel and Ms. Paul disagreed on whether buoyancy oil -- which has been
 21 characterized by the EPA as used oil (Ex. 3) -- should be treated by the DEQ as a used oil.
 22 Mr. Volpel said yes; Ms. Paul said no. If the Department's own employees do not agree on
 23 the scope of the rule, Cascade General should not be subject to thousands of dollars of fines

24 ///
 25 ///
 26 ///

1 on the close question of Tectyl's characterization.⁴

2 As to the Tectyl, Mr. Volpel stated that his concern is that rust preventatives
3 generally will become characterized as used oil. He stated that some rust preventatives may
4 have high level of metals and would be unsafe to handle as fuel oil. But if rust preventatives
5 with high metal content are a problem, and if those used products would otherwise meet the
6 criteria for used oil, then the agency should amend its regulations to expressly state that such
7 rust preventatives are excluded. It did just that with regard to antifreeze and products used
8 as solvents. As noted above, Oregon courts prohibit *ad hoc* policymaking by administrative
9 agencies. Cascade General had no way of knowing that a used oil-based rust preventative
10 meeting the criteria for used oil could not be managed as used oil. Given this fact, Cascade
11 General should not be penalized.

12 In any event, Mr. Volpel's concern about the metal content of used rust preventatives
13 is not implicated by the treatment of Tectyl as used oil. He admitted at the hearing that the
14 lab tests of Tectyl did not show high levels of metals. Furthermore, Oil Re-Refining, and
15 other used oil processors which market used oil as fuel, commonly handle used oils that are
16 ignitable or otherwise considered "off-specification" fuels.⁵ Thus, even if the mixture of the

17
18 ⁴The Department's brief suggests that the enforcement staff consulted with Mr. Volpel
19 before issuing the NOV in this case. (DEQ Brief, p. 10) That is not correct. Mr. Volpel
20 testified that he was first consulted regarding this matter many months after the December
21 1997 NOV, during the preparation for the contested case hearing.

22 ⁵The federal used oil rules set out a series of "specifications" for used oil, including one
23 for "flash point." Used oil with a flash point of 100° F and above is considered "on-
24 specification," while used oil with a flash point of less than 100° F is considered "off-
25 specification." 40 C.F.R. § 279.11 (Table 1). The federal used oil rules define a
26 "marketer" as a person or entity who directs a shipment of "off-specification" oil to a used
oil "burner" or who first claims that the used oil that is to be burned for energy recovery
meets the used oil specification set forth in § 279.11. 40 C.F.R. § 279.70(a). Marketers are
allowed to initiate a shipment of off-specification used oil only to an oil "burner" who,
among other things, will burn the used oil in an industrial furnace, or certain industrial
boilers identified in § 279.61(a). 40 C.F.R. § 279.71. These restrictions on marketers are

1 used Tectyl and the other used oil from Campbell Crane were still "ignitable," Cascade
 2 General's management of the Tectyl as a used oil did not present a threat to the public
 3 different from that of off-specification used oil fuels, for example. Recycling the used Tectyl
 4 as a used oil did not place the public at undue risk.

5 Finally, testimony at the hearing showed that in 1996 the Department was closely
 6 scrutinizing Oil Re-Refining and its sister company, Fuel Processors, and Oil Re-Refining
 7 could not afford to make a mistake. We understand that neither company was licensed to
 8 accept hazardous waste. Yet Oil Re-Refining did accept the Tectyl after reviewing an MSDS
 9 and lab reports, concluding that it was a used oil. And to add insult to injury, Oil Re-
 10 Refining in fact was not penalized for accepting the Tectyl. If the question of the
 11 characterization of Tectyl was close enough to excuse Oil Re-Refining, then Cascade General
 12 itself should not be penalized.

13 **F. The Department's other arguments do not support the NOV**

14 The Department's brief contains a series of arguments which only serve to distract
 15 from the key issues in the matter. Cascade General will briefly address those arguments
 16 here.

17 The Department suggests subterfuge or outright falsehood on Cascade General's part
 18 in asserting in its December 15, 1997 answer that the Tectyl was recycled as unused product.

19 to protect the environment by restricting the burning of off-specification used oil to industrial
 20 furnaces and boilers that can burn it without unduly polluting the environment. Under the
 21 used oil rules, "transporters," "used oil processors and re-refiners" and "burners" must also
 22 comply with the restrictions regarding off-specification used oil that apply to "marketers."
 23 40 C.F.R. § 279.40(d)(4), § 279.50(b)(4), and § 279.61. Cascade General was not a
 24 marketer, processor/re-refiner, transporter or burner of the Tectyl used oils at issue. It
 25 merely offered them as "off-specification" used oils to Oil Re-Refining, which either itself or
 26 through its sister company, Fuel Processors, blended them and sold the blended used oils as
 "on-specification" or "off-specification" used oil to others. Thus, Cascade General's
 management of the Tectyl used oils at issue complied with the terms of the applicable used
 oil rules and was fully protective of the environment.

1 There is absolutely no factual basis for these charges. Alan Sprott, Cascade General's
2 Manager of Environmental Services, fully testified at the hearing regarding his dealings with
3 the Department, his discovery of an actual sample of the used Tectyl, and his subsequent
4 investigation of archived documents which showed that the product had been recycled as used
5 oil. The Tectyl had been sent to Oil Re-Refining more than a year before the Department
6 raised questions about its management. It is not surprising that Cascade General did not
7 have the relevant documents immediately at hand.

8 The Department also discusses at length Cascade General's December 15, 1997
9 answer (Ex. B), which raises issues different from those raised at the hearing -- i.e., it does
10 not state that the Tectyl was used oil. The Department suggests it was prejudiced by
11 Cascade General's later assertion -- following internal investigation -- that the Tectyl was a
12 used oil. Nothing could be further from the truth. Cascade General showed that the product
13 was "used oil" in a letter mailed April 16, 1998 (Ex. 5), more than nine months before the
14 contested case hearing. The Department had ample time to analyze this issue before the
15 hearing. Even if Cascade General had raised the used oil issue earlier, in its answer, there
16 would not have been any impact on the agency's actions. By the time Cascade General
17 submitted its answer, the Department had already acted, issuing the NOV on November 18,
18 1997.

19 The Department's brief is full of statements that Cascade General "should have" taken
20 certain actions in managing the Tectyl. These statements have no basis in the law or
21 regulations, and are not relevant to the alleged violations. These portions of the brief should
22 be ignored.

23 As an example, the Department's brief suggests that Cascade General failed to follow
24 required procedures because it did not conduct a hazardous waste determination until
25 requested to do so by Oil Re-Refining. (DEQ Brief, p. 4) Because the Tectyl was used oil,
26 no hazardous waste determination was required at all. And, in any event, the Department

1 cites no regulation supporting the contention that the hazardous waste determination was "too
2 late." Finally, the timing of the hazardous waste determination is not cited as a violation in
3 the NOV, and so is irrelevant.

4 The Department states that Cascade General "should have contacted DEQ to inquire
5 how the Tectyl should be managed." (DEQ Brief, p. 14) Again, this suggests that
6 regulations require such a call. They do not. The regulations contemplate that a used oil
7 generator must make its own determination of whether a used product is used oil, based on
8 the MSDS and other information available to it. Cascade General cannot be penalized for
9 making its own determination regarding the Tectyl.

10 G. Conclusion

11 Tectyl 502C and 511M, when used as they were by Cascade General on the *Higgins*,
12 meet the regulatory criteria for used oil. The Department is evidently concerned that if it
13 treats used Tectyl as a used oil, other more hazardous used rust preventatives will escape
14 treatment as hazardous waste. If that is the case, the regulations should be clarified to
15 exclude such rust preventatives from the used oil rules. Because the regulations could not
16 and did not alert Cascade General that the used Tectyl should be excluded from management
17 as a used oil, Cascade General respectfully requests that the NOV should be vacated.

18 DATED: March 16, 1999.

19 Respectfully submitted,

20
21 

22 John M. Schultz, OSB #91419
23 Lori Irish Bauman, OSB #87161
24 Of Attorneys for Respondent
25 Cascade General, Inc.
26

CERTIFICATE OF SERVICE

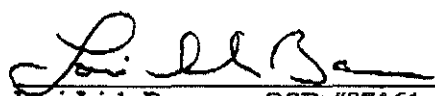
I hereby certify that I served the foregoing POST-HEARING MEMORANDUM OF
RESPONDENT CASCADE GENERAL, INC. on the following parties:

The Honorable Lawrence S. Smith
Administrative Law Judge
State of Oregon
Employment Department
Hearings Section
875 Union St. N.E.
Salem, OR 97311
PHONE: (503) 947-1515
FAX: 238-5410

Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW 5th Ave., Suite 1400
Portland, OR 97201
PHONE: 229-6932
FAX: 229-6945

by sending via facsimile a true and correct copy thereof to said parties on the date stated
below.

DATED: March 16, 1999.


Lori Irish Bauman, OSB #87161
Of Attorneys for Respondent

ATER WYNNELL
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222 S.W. Columbia, Suite 1800
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:
CASCADE GENERAL, INC.
An Oregon corporation,

Respondent.

DEPARTMENT'S
POST-HEARING MEMORANDUM
NO. WMC/HW-NWR-97-176
MULTNOMAH COUNTY

ORD 180761934

I. INTRODUCTION

This Post-Hearing Memorandum is filed by the Oregon Department of Environmental Quality (Department or DEQ) following a contested case hearing held in Portland, Oregon, on January 28, 1999, in the matter of Cascade General, Inc. (Cascade), an Oregon corporation.

At issue is a total of \$14,500 in civil penalties assessed against Cascade by DEQ for violations alleged in a Notice of Violation, Compliance Order, and Assessment of Civil Penalty [WMC/] HW-NWR-97-176 dated November 18, 1997. In accordance with rule, DEQ assessed a \$4,500 penalty for Cascade's alleged failure to make a complete and accurate hazardous waste determination for each "residue" generated, including residues described as waste Tectyl and a mixture of waste Tectyl and used oil. DEQ also assessed a \$10,000 penalty against Cascade for allegedly transporting hazardous waste or offering hazardous waste for transport for offsite treatment, storage, or disposal, without first preparing a hazardous waste manifest as required. The amount of each penalty was increased because of Cascade's history of committing a wide variety of other environmental violations. The amount of the penalty for the hazardous waste manifest violation was increased because of the economic benefit gained by avoiding the higher cost of proper waste management at a permitted hazardous waste treatment, storage, or disposal facility. However, because the calculated amount of Cascade's penalty for failing to manifest exceeded the statutory maximum for a single day of violation, the penalty was reduced to \$10,000 [Exhibit A]. The economic benefit calculation sheets are attached (as Exhibit AA if not already included as part of Exhibit A).

Attachment M- 19 pages

1 Cascade presented an ever-changing assortment of claims and theories as to why
 2 Cascade believed its Tectyl was exempt from regulation and management as a solid and
 3 hazardous waste. In its "Answer" [Exhibit B] to DEQ's allegations, Cascade claimed that its
 4 Tectyl was exempt from being a solid waste and hazardous waste because it was a "virgin"
 5 commercial chemical product going for "reclamation" as a "petroleum fuel product."
 6 Secondly, Cascade asserted that "even if the Tectyl was determined to be an ignitable
 7 hazardous waste," the Tectyl was mixed with used oil and purportedly no longer exhibited the
 8 characteristic of ignitability. Most recently, Cascade took the position that the Tectyls
 9 [specifically Tectyl 502C, and Tectyl 511M] were themselves "used oils" as defined by rule. It
 10 should be noted that Cascade failed to raise that affirmative claim or defense in its "Answer."

11 DEQ disagrees with all of Cascade's affirmative claims and intends to rely on
 12 40 CFR 261.2(f) which places the burden on Cascade to prove that Cascade met the
 13 terms of any claimed exclusion or exemption regarding Cascade's Tectyl(s) at the time of the
 14 alleged violations. Just as important is whether Cascade possessed adequate information or
 15 knowledge about the Tectyls to make a legitimate evaluation of its regulatory obligations.
 16 **Key questions in this case are: What did Cascade know and when did Cascade know it?**

40 CFR 261.2(f)

Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation:

Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

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II. ANALYSIS AND ARGUMENTS OPPOSING CASCADE'S CLAIMS

A. Cascade's First Affirmative Claim/Defense Fails:

Cascade's first affirmative claim/defense raised in Cascade's "Answer" is that Cascade's Tectyl was excluded from regulation as a solid waste [and a hazardous waste] based on the claim that the Tectyl was a virgin commercial petroleum fuel product going for "reclamation." That claim fails on several fronts [See Table 1 of 40 CFR 261.2 (Exhibit 4, page 26) which sets out which recyclable materials are solid wastes, and potentially hazardous wastes]:

- Cascade has now abandoned its claim that its Tectyl(s) was unused "virgin" commercial chemical product [Exhibit 5, pages 1,21, and 22].
- 40 CFR 261.1(c)(4) defines "reclamation" as processing a material to recover a useable product, or to regenerate the product. No usable product was recovered or regenerated by Cascade. Table 1 of 40 CFR 261.2 distinguishes the category of "reclamation" from a separate category of "burning for energy recovery." Note that all recyclable materials burned for energy recovery are classified as "solid wastes" (residues), subject to the hazardous waste determination requirement.
- Tectyl 503C and Tectyl 511M are not fuel products. They are not represented by their manufacturer as fuel products [Exhibits 114 through 123], they are not represented on the MSDS sheets [Exhibits 5 pages 23 and 24; and Exhibit 8] as fuel products, and Cascade did not purchase Tectyls with the intent to use them as fuel products.

B. Cascade's Second Affirmative Claim/Defense Fails:

Cascade's second affirmative claim/defense, as alluded to in its "Answer" explores the possibility that Cascade's Tectyls were in fact ignitable hazardous wastes, but claims exemption from regulation as hazardous waste on the basis that the Tectyl was eventually mixed with used oil, and that the used oil regulations allow a generator to mix ignitable-only hazardous waste with used oil and manage the mixture under the used oil regulation.

///

1 ■ Cascade's second affirmative claim/defense does not present a defense to the cited
2 violations. If Cascade concedes that its Tectyls were hazardous wastes, then Cascade
3 obviously would have been obligated to make a complete hazardous waste
4 determination on each Tectyl waste from the moment of generation and on-site
5 accumulation. Cascade would have needed to know all hazards associated with each
6 waste and the corresponding waste codes in order for Cascade to safely manage each
7 waste and meet its regulatory obligations. It is uncontroverted that Cascade's Tectyls
8 exhibited flash points within the range to be classified as ignitable hazardous wastes
9 [Exhibits 6,7, and 8]. Cascade should have immediately determined that its Tectyls
10 were at least (D001) ignitable hazardous wastes based on information from the MSDS
11 sheets, combined with an evaluation of how the Tectyls were used. Cascade should
12 have concluded that it was obligated to manage the Tectyls as hazardous waste in
13 accordance with all hazardous waste generator on-site accumulation standards,
14 including requirements to mark each container with an accumulation date and with the
15 words "hazardous waste."

16 ■ The used oil/ignitable-only hazardous waste mixture exemption that Cascade
17 wishes to claim [40 CFR 279.10(b)(2)(iii)] only applies after mixing has occurred, and
18 only after a generator has demonstrated that the mixture no longer exhibits the
19 hazardous waste characteristic of ignitability. The exemption does not relieve a
20 hazardous waste generator from its obligation to properly manage a hazardous waste
21 while accumulated on-site until after mixing has occurred and the generator can
22 demonstrate and document that all terms of the used oil/ignitable-only hazardous waste
23 mixture exemption have been fully-met. However, we know from the record that
24 Cascade did not conduct any analytical tests on any of its Tectyl wastes until Cascade
25 was prompted to do so by Oil Re-Refiners (ORR) [Exhibit 103] after Cascade had
26 offered the Tectyls [without analyses] to ORR to transport off-site.

27 ///

1 ■ Cascade cannot qualify for the used oil/ignitable-only hazardous waste mixture
2 exemption because Cascade did not mix its ignitable Tectyls with used oil. At the time
3 Cascade transferred care, custody, and control of Cascade's Tectyls to ORR, the
4 Tectyls had not yet been mixed with used oil [Page 3, Exhibit 113]. Therefore,
5 Cascade's Tectyls were at least (D001) ignitable hazardous wastes when ORR took
6 possession and accepted the Tectyls for transport off-site. The only mixing of Tectyls
7 with used oil occurred in ORR's vacuum truck after ORR accepted possession of the
8 Tectyls. The Tectyls became mixed with 600 gallons of used oil generated by
9 "Campbell Crane" which was already on-board ORR's truck [Page 4, Exhibit 113].
10 Neither Cascade nor ORR tested the mixture for ignitability prior to transporting the
11 mixture from Cascade's facility. **Regardless...**

12 ■ Absent a complete hazardous waste determination of each waste Tectyl, Cascade
13 cannot document that it knew whether its Tectyls were ignitable-only. The analyses
14 prompted by ORR's request was inadequate in that it addressed only a few of the
15 potential hazardous constituents. Cascade did not demonstrate that its Tectyls did not
16 exhibit the (TCLP) Toxicity Characteristic for any organics, or whether any of the
17 Tectyls may have become contaminated with listed hazardous waste solvents during
18 cleaning of the equipment [see Exhibit 5, top of page 5 "cleaning fluid" for example].
19 Therefore, once mixed with used oil, the mixture may well have remained characteristic
20 hazardous waste for multiple constituents, and perhaps listed hazardous waste.

21 ■ Cascade has not documented that the samples of Tectyl that were taken and
22 analyzed [Exhibits 107 and 108] were representative samples, or that the sampling
23 protocols mandated by 40 CFR 261.20(c) were followed. Whereas the job
24 specifications for the USNS Higgins work [Pages 4 through 19 of Exhibit 5] indicates
25 that the Tectyls were as to be used in a variety of ways, on a variety of equipment over
26 time, it is highly likely that the contaminants in each individual drum of used Tectyl
27 would vary to some degree, both quantitatively and qualitatively.

1 ■ Guidance from the petroleum industry [Exhibit 124] shows that mixtures of ignitable
2 stoddard solvent [like that contained in Cascade's Tectyls (see Exhibits 104 and 105)
3 and used oil require a mixture ratio of 15/85 (i.e. about 15 parts ignitable stoddard
4 solvent to 85 parts used oil) to change the flash point of the mixture so that it did not
5 exhibit the hazardous waste characteristic of ignitability that was inherent with the
6 stoddard solvent. The mixture of Cascade's Tectyls with the used oil in ORR's truck
7 achieved a ratio of about 2775/600 (i.e. 2775 gallons of ignitable stoddard-solvent
8 based Tectyl to 600 gallons of used oil). The 2775/600 ratio achieved in this case is
9 virtually opposite the 15/85 ratio necessary to eliminate the ignitability characteristic.
10 A preponderance of evidence indicates that the Tectyl/used oil mixture was still
11 ignitable hazardous waste when transported off-site from Cascade's facility.

12 ■ On the Fuel Processors/ORR Waste Profile [Exhibit 109] Cascade's employee
13 identified the Tectyls as "used oil" and misrepresented that the Flash Point of the waste
14 was greater than 140 degrees F. and outside of the range of the hazardous waste
15 ignitability characteristic. The employee also represented that no sample had been
16 taken.

17 **C. Cascade's Third [Untimely] Affirmative Claim/Defense Fails:**

18 **Cascade's Tectyl 502C and 511M do not meet the definition of "oil" or "used oil":**

19 Cascade's third affirmative claim/defense raises the issue of whether Cascade's Tectyls were
20 themselves "oils" and "used oils" subject to regulation under the used oil rules rather than the
21 hazardous waste regulations. Cascade raised the issue after it filed its "Answer" in this case,
22 and after allegedly discovering some new documents [Exhibit 5, pages 21 and 22] of dubious
23 origin, which purport to show that (some of) Cascade's Tectyl was "used." That information
24 was in direct contradiction to Cascade's previous claims [Exhibits B and 113 page 2].

25 EPA and DEQ have adopted a similar three-pronged approach to determine if a
26 substance meets the definition of "used oil" based on origin, use, and contamination
27 [Exhibits 3 and 125].

1 **Statutory Definition of "Used Oil" - Used Oil Recycling**

2 **ORS 459A.555(5)**

3 "Used oil" means a petroleum-based oil which through use, storage or handling has
4 become unsuitable for its original purpose due to the presence of impurities or loss of
5 original properties. [Formerly 468.850]

6

7 **Definition of "Used Oil" in Oregon**

8

9 OAR 340-111-020(2)(c) - "Used Oil" means any oil that has been refined from crude
10 oil, or any synthetic oil that has been used as a lubricant, coolant
11 (non-contact heat transfer fluids), hydraulic fluid or for similar uses and as a result of
12 such use is contaminated by physical or chemical impurities. Used oil includes, but is
13 not limited to, used motor oil, gear oil, greases, machine cutting and coolant oils,
14 hydraulic fluids, brake fluids, electrical insulation oils, heat transfer oils and
15 refrigeration oils. Used oil does not include used oil mixed with hazardous waste
16 except as allowed in 40 CFR 279.10(b), oil (crude or synthetic) based products used as
17 solvents, antifreeze, wastewaters from which the oil has been recovered, and oil
18 contaminated media or debris. [emphasis added]

19 1. **Cascade's Tectyl 502C and 511M did not meet the definitions of "used oils,"**
20 **because the Tectyls were not used, and/or were not contaminated as a result of such**
21 **use so as to be "spent" and unsuitable for their original intended purpose.**

22 ■ Cascade's new claim that its Tectyls were used is critical to Cascade's defense that its
23 Tectyl met the regulatory definition of "used oil." Obviously, if the Tectyl products had not
24 been used, Cascade's defense would fail because the unused Tectyl products would not
25 have met the "used" criteria in the definition of "used oil."

26 ■ Cascade's newly-discovered documents [Exhibit 5, pages 21 and 22] list both new and
27 used Tectyls. The documents also make several references to the terms "waste,"
"hazardous waste," and "disposal."

///

1 ■ Mr. Sprott testified that Cascade purchased the Tectyl products only for use on the
2 USNS Higgins project, and that Cascade had no subsequent use for the Tectyls and did
3 not make any additional purchase of Tectyl products prior to May 30, 1996.

4 ■ Yet, on May 30, 1996, ORR picked up a total of 2,775 gallons of Tectyls from Cascade
5 [Page 4, Exhibit 113 and Exhibit 110]. According to pages 21 and 22 of Exhibit 5, Cascade
6 only had a total of 41 55-gallon drums of "used" Tectyls. If all 41 drums were completely
7 full, that would only account for 2,255 gallons of the 2,775 gallons of Tectyl shipped by
8 Cascade. But if the volumes of all of the used and unused Tectyls listed on pages 21 and
9 22 of Exhibit 5 are added together, the total comes to 2,765 gallons; virtually identical to
10 the 2,775 gallons of Tectyl actually shipped. Based on Cascade's own records, at least
11 510 gallons of Tectyl shipped was not "used" Tectyl. A preponderance of evidence
12 suggests that Cascade shipped both used and unused Tectyl off-site on May 30, 1996.
13 Any unused Tectyl could not have been "used oil" and was therefore hazardous waste.

14 ■ Rebecca Paul testified that in her opinion, the Tectyl products do not become "used,"
15 but rather are consumed in their entirety by being used-up, much like paint. The "use" of
16 the Tectyl products occur when they are applied to a surface and allowed to "dry" or
17 "cure." Any excess Tectyl collected after dipping or spraying a surface, can simply be
18 applied as product to the next surface. The job specifications for the USNS Higgins project
19 do not indicate that the Tectyl becomes contaminated through use, and in fact specifies
20 that excess Tectyl should be "drained from the engine" and "saved for reuse" [work item
21 specification 7.3.3.3 on page 6 of Exhibit 5].

22 ■ A preponderance of evidence indicates that all 2,775 gallons of Tectyl products that
23 Cascade shipped to ORR on May 30, 1996, were still suitable for their intended purpose.
24 Instead, a useful product was simply wasted. If the Tectyls were "used oil," which they
25 were not, then burning them for energy recovery would be contrary to the spirit of used oil
26 recycling set forth in ORS 459A.554 [and page 2 of Exhibit 3] which establishes "reuse" as
27 a superior management method over "burning for energy recovery."

1 **2. Cascade's Tectyl 502C and 511M did not meet the definition of "used oils"**
2 **because the Tectyls were not "oils."**

3 ■ Although many definitions of what constitutes "oil" were discussed at hearing, all are
4 moot to this case unless the definition is consistent with Oregon's definitions of "used oil"
5 including that in ORS 459A.555(5) and OAR 340-111-020(2)(c).

6 ■ Tectyl 502C and 511M are manufactured chemical products, not oils that have been
7 derived-from or refined from crude or synthetic oil [Exhibits 104 and 105]. The fact that the
8 Tectyls may contain an ingredient which could meet the definition of "oil" does not make
9 the Tectyl product an "oil" no more than the fact that Tectyl contains zinc makes Tectyl
10 zinc, or the fact that Tectyl contains Stoddard Solvent and ethers used as solvents make
11 the Tectyls solvents (if that were not so, then as solvents, the Tectyls could not be oils or
12 used oils by definition).

13 ■ Ashland Chemical Company/Valvoline, the manufacturer of Tectyl 502C and 511M,
14 market those products as "solventborne industrial coatings" and "corrosion preventative
15 compounds" [Exhibits 116 and 119] not as lubricants, heat transfer fluids, or hydraulic
16 fluids. In fact, the manufacturer makes a clear distinction between its Tectyl products, and
17 protective coating products "primarily formulated with straight oils, petrolatums or greases
18 [Exhibit 114]. The manufacturer also makes a clear distinction between its "Solventborn
19 Tectyl Products" (which include Tectyl 502C and 511M) and its "Oil Film Tectyl Products"
20 [Exhibits 116 and 117]. Only the Oil Film Tectyl Products are shown to have any lubricant
21 value [see Tectyl 275 on Exhibit 117].

22 ■ Cascade's Tectyls were not purchased with the intent to use them as lubricants, heat
23 transfer fluids, or hydraulic fluids.

24 ■ Mr. Sprott testified that Cascade is an authorized used oil processor. According to Mr.
25 Sprott, the used oil that Cascade processes is sold to Harbor Oil Company. Yet, the
26 record shows that Cascade did not manage its Tectyl in the same manner as it would
27 normally manage used oil. Instead, Cascade paid to have the Tectyl removed.

1 ■ DEQ has been delegated authority to operate the Federal RCRA and Used Oil
2 programs in Oregon, including the authority to apply and interpret the regulations. With
3 specific reference to the definition of "used oil," authorized states have the authority to
4 determine what is considered a "similar use" on a case-by-case basis [Exhibit 125].

5 DEQ, through its hazardous waste expert Rebecca Paul, and through its used oil expert,
6 Rick Volpel, concluded that Cascade's Tectyls were hazardous wastes, not used oils.

7 DEQ's experts testified that the manner of use of the Tectyls, their chemical composition,
8 their low flash point, and their need to "dry" and "cure" were inconsistent with what is
9 normally considered to be "oil" or "used oil".

10 Cascade has not documented that it met the terms of any exception or exemption,
11 therefore, Cascade's Tectyls were subject to regulation as solid waste residues, and as
12 ignitable hazardous wastes.

13 III. LEGISLATIVE MANDATES, RULES AND AUTHORITIES

14 The Oregon Legislature has charged DEQ, through the Environmental Quality
15 Commission, with the duty to strictly control all aspects of hazardous waste generation,
16 storage, treatment and disposal "from cradle to grave" in order to protect public health and
17 safety and the environment.

18 **ORS 466.010 -- Purpose**

19 (1)(a) The Legislative Assembly finds that it is in the interest of public health and
20 safety and environment to protect Oregon citizens from the potential harmful
21 effects of the transportation and treatment or disposal of hazardous waste and
22 PCB within Oregon.

(b) Therefore, the Legislative Assembly declares that it is the purpose of ORS
23 466.005 to 466.385 and 466.992 to:

24 (A) Protect the public health and safety and environment of Oregon to the
25 maximum extent possible;

26 (B) Exercise the maximum amount of control over actions within Oregon
27 relating to hazardous waste and PCB transportation and treatment or disposal.

///

ORS 466.015 -- Powers and Duties of Department.

The Department of Environmental Quality shall:

(1) Provide for the administration, enforcement and implementation of ORS 466.005 to 466.385 and 466.992 and may perform all functions necessary:

(a) To insure the proper management of hazardous waste by generators;
(b) For the regulation of the operation and construction of hazardous waste treatment, storage and disposal sites; and

(c) For the permitting of hazardous waste treatment, storage and disposal sites in consultation with the appropriate county governing body or city council.

(2) Coordinate and supervise all functions of state and local governmental agencies engaged in activities subject to the provisions of ORS 466.005 to 466.385 and 466.992.

(3) After notice and public hearing pursuant to ORS 183.310 to 183.550, declassify as hazardous waste those substances described in ORS 466.005 (7) which the Environmental Quality Commission finds, after deliberate consideration, taking into account the public health, welfare or safety or the environment, have been properly treated or decontaminated or contain a sufficiently low concentration of hazardous material so that such substances are no longer hazardous.

ORS 466.020 -- Rules and Orders

In accordance with applicable provisions of ORS 183.310 to 183.550, the Environmental Quality Commission shall:

(1) Adopt rules and issue orders thereon, including but not limited to establishing minimum requirements for the treatment, storage and disposal of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage or disposal sites, and requirements and procedures for selection of such sites.

(2) Adopt rules and issue orders thereon relating to the procedures of the Department of Environmental Quality to hearings, filing of reports, submission of plans and the issuance, revocation and modification of permits issued under ORS 466.005 to 466.385 and 466.992.

(3) Adopt rules and issue orders thereon to classify as hazardous waste those residues defined in ORS 466.005 (7)(b).

(4) Adopt rules and issue orders thereon relating to reporting by generators of hazardous waste concerning type, amount and disposition of such hazardous waste and waste minimization activities. Rules may be adopted exempting certain classes of generators from such requirements.

(5) Adopt rules and issue orders relating to the transportation of hazardous waste by air or water.

(6) Adopt rules and issue orders relating to the production, marketing, distribution, transportation and burning of fuels containing or derived from hazardous waste.

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OAR 340-100-001 -- Purpose and Scope

(1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

(2) The purpose of the management program contained in OAR Chapter 340, Divisions 100 to 110 and 120 is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous waste minimization, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

IV. ANALYSIS OF CASCADE'S HAZARDOUS WASTE VIOLATIONS

DEQ views this matter as a basic case of negligent mismanagement of hazardous waste by a company with a history of committing other hazardous waste, air quality, and water quality violations [Exhibits 111 and 112]. Cascade generates more than 2,200 pounds of hazardous waste each calendar month, and is therefore subject to full regulation under RCRA. Cascade should have been very familiar with all hazardous waste management regulations relevant to this case. Cascade is obligated by law to train its employees to follow hazardous waste management requirements. Instead, the Department finds that Cascade failed to follow the most basic of hazardous waste management requirements; to adequately identify the hazards associated with a waste, to alert employees and subsequent handlers of the waste to those hazards, and then to insure that the waste is safely transported to a facility designed to safely manage the waste. In Cascade's case, we find that highly ignitable waste was transported through the community, without the normal RCRA safeguards, and at an increased risk to the public and the environment. Ultimately, Cascade's waste was taken by ORR to its affiliate, Fuel Processors, Inc. Both ORR and Fuel Processors, Inc. have been charged criminally with multiple counts of illegal treatment and storage of hazardous waste.

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OAR 340-102-011 -- Hazardous Waste Determination

(1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in OAR 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) Persons should first determine if the waste is excluded from regulation under 40 CFR 261.4 or OAR 340-101-004;

(b) Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of OAR 340-101-033;

NOTE: Even if the waste is listed, the generator still has an opportunity under OAR 340-100-022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.

(c) Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is hazardous under Subpart C of 40 CFR Part 261 by either:

(A) Testing the waste according to the methods set forth in Subpart C of 40 CFR 261, or according to an equivalent method approved by the Department under OAR 340-100-021.

NOTE: In most instances, the Department will not consider approving a test method until it has been approved by EPA.

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and 40 CFR Part 264, 265 and 268 for possible exclusions or restrictions pertaining to management of his/her specific waste.

NOTE: 40 CFR 268.3 prohibits dilution of a hazardous waste to meet Land Disposal Restriction treatment standards. Diluting waste without a permit to meet any hazardous waste standard is prohibited.

(e) If the waste is not identified as hazardous by application of subsection (2)(b) and/or (c) of this rule, persons must determine if the waste is listed under OAR 340-101-0033.

(3) A person who generates a residue, as defined in OAR 340-100-0010(2)(z), must keep a copy of the documentation used to determine whether the residue is a hazardous waste, under section (2) of this rule, for a minimum of three years after the waste stream is no longer generated, or as prescribed in 40 CFR 262.40(c). If no documentation is created in making the wastestream determination, then no new documentation need be created.

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1 ■ Any hazardous waste generator who generates a "residue" (solid waste) as defined by
 2 OAR 340-100-010(2)(z) and 40 CFR 261.2(b)(1) must determine if that residue is subject
 3 to regulation as hazardous waste following the procedures set forth in OAR 340-102-011.

4 ■ Regardless of whether a residue ultimately turns out to be a non-hazardous waste or
 5 otherwise exempt from regulation, a hazardous waste generator must initiate the
 6 hazardous waste determination process to the extent necessary to clearly document that
 7 an exemption applies, or that the residue is non-hazardous.

8 ■ Before a generator can claim that a certain material is not a solid waste, or is
 9 conditionally exempt from regulation, the generator must know unequivocally that
 10 the material meets the terms of the exclusion or exemption [and can demonstrate it
 11 pursuant to 40 CFR 261.2(f)].

12 ■ A generator of used oil who is also a generator of hazardous waste, must complete
 13 enough of a hazardous waste determination to know that the used oil has not been mixed
 14 with hazardous waste; or if it has, to determine how it may be managed in compliance with
 15 applicable regulations. While accumulated on-site, each container must be appropriately
 16 marked as containing used oil or hazardous waste. Used oil destined for disposal is
 17 hazardous waste.

18 ■ Whereas Cascade was a fully-regulated generator at the time of the alleged violations,
 19 Cascade was mandated to begin a hazardous waste determination process on each
 20 residue that Cascade generated, including each separate Tectyl waste generated, and
 21 each residue generated after mixing Tectyl with used oil or other solid or hazardous waste.

22 ■ Cascade asked ORR if ORR could take its Tectyl, based only on information presented
 23 in the MSDS sheets [Exhibit 103]. ORR responded back that Cascade would need to
 24 analyze the waste Tectyl itself for flash point and TCLP metals. That should have alerted
 25 Cascade that it may be dealing with something other than just used oil. Cascade should
 26 have contacted DEQ to inquire how the Tectyl should be managed. Mr. Spratt testified
 27 that it would be his practice to contact DEQ if a similar incident or question arose today.

V. CASCADE'S CIVIL PENALTY

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■ RCRA, and Oregon's hazardous waste program, is meant to establish a system of tight controls over all aspects of hazardous waste management. It is designed to prevent and/or minimize the hazards associated with hazardous waste, and to develop a paper trail designed to ensure that hazardous waste can be traced from "cradle to grave." Paramount to the program is the need to properly identify the hazards associated with any waste, so that adequate measures may be taken to safely manage that waste, both on-site, and ultimately off-site. Closely following in importance, is the need to maintain the paper trail which is meant to discourage the practice of hazardous waste ending up in the back woods or the back yard. Cascade failed to meet both of these important regulatory provisions.

■ Cascade was assessed a \$4,500 civil penalty for failing to make hazardous waste determinations for two waste streams, Tectyl and Tectyl/used oil mixture. We now know that there were at least two separate types of Tectyl, and possibly many different batches of contaminated Tectyl, each of which may have needed a separate hazardous waste determination to identify waste management needs. DEQ concedes that because Cascade did not actually mix the Tectyls with the used oil itself, it technically did not have the duty to retest the mixture after mixing. The issue is moot as to reducing the penalty based on number of waste streams. The magnitude was aggravated to Moderate because of the large volume of waste involved in the violation. The amount of penalty was also aggravated because of Cascade's history of violations and Cascade's negligent failure to follow the hazardous waste determination regulations as Cascade has demonstrated that it knew how to do, and/or if in doubt, to seek guidance from DEQ prior to mismanaging the waste.

■ Cascade was assessed a \$12,475 civil penalty for offering hazardous waste for transportation off-site, without first preparing a hazardous waste manifest so that the path of the waste could be traced to point of its final management. \$3,475 of the penalty was attributed to economic benefit gained by having the waste managed improperly, rather

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than paying to have the waste managed at a licensed hazardous waste management facility. The total penalty was reduced to \$10,000 to fall within the statutory limits for a single day of violation. The amount of penalty was additionally aggravated by Cascade's environmental record, and because of Cascade's negligent failure to prepare a manifest, even though it has demonstrated that it had knowledge of the requirement based on Cascade's past practices. The Magnitude of the violation was set at Major because the large quantity of waste involved in the violation. Calculations sheets are attached as Exhibit AA. Cascade did not deny that it did not prepare a manifest for the Tectyls shipped off-site.

- Cascade has failed to demonstrate that it met the terms of an exception or exemption.
- DEQ has met its burden of proof that the violations occurred.
- The civil penalties were assessed in accordance with rule and should be upheld.

DATED February 23, 1999.

Respectively submitted,



Larry M. Schurr
Environmental Law Specialist
Special Investigator
Statewide Enforcement Section, DEQ

EXHIBIT AA

State of Oregon
Department of Environmental Quality

Memorandum

Date: August 25, 1997

To: File
From: Jenny Root
Subject: Ben calculation for Cascade General, Inc..

The economic benefit portion of the civil penalty formula is simply the monetary benefit that the violator gained by not complying with the law. It is not designed to punish the violator, but to (1) "level the playing field" by taking away any economic advantage the violator gained over its competitors through noncompliance, and (2) deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance.

DEQ uses EPA's "BEN" computer model which considers interest rates, tax rates and deductions, and other factors in determining an estimated benefit, pursuant to OAR 340-12-045(1)(c)(F)(iii).

Cascade General, Inc., should have disposed of its hazardous waste at the hazardous waste facility in Arlington, Oregon. By failing to dispose of hazardous waste in a proper manner, Cascade General avoided the following hazardous waste disposal costs, and obtained an economic benefit as follows:

| <u>Cost</u> | <u>Amount</u> | <u>Economic Benefit</u> |
|-----------------------------|---------------|-------------------------|
| Disposal at Arlington | \$4,467 | |
| Transportation to Arlington | 585 | |
| | \$5,052 | \$3,475 |

I recognize that this may not completely circumscribe the economic benefit Cascade General, Inc. received to date because it does not include uncertain advantage-of-risk and competitive advantage benefits. However, I consider these other economic benefits to be "de minimis" in light of the difficulties in calculation. Pursuant to OAR 340-12-045(1)(F)(ii), the Department need not calculate an economic benefit if that benefit is de minimis.

CASCADE GENERAL, INC.

BEN VERSION 4.2 AUGUST 25, 1997

| | | |
|---|----|------------|
| A. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE IN 1996 DOLLARS. | \$ | 3027 |
| B. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE PLUS ALL FUTURE REPLACEMENT CYCLES IN 1996 DOLLARS | \$ | 3027 |
| C. VALUE OF DELAYING EMPLOYMENT OF POLLUTION CONTROL EQUIPMENT BY 16 MONTHS PLUS ALL FUTURE REPLACEMENT CYCLES IN 1996 DOLLARS | \$ | 2683 |
| D. ECONOMIC BENEFIT OF A 16 MONTH DELAY IN 1996 DOLLARS (EQUALS B MINUS C) | \$ | 344 |
| E. THE ECONOMIC BENEFIT AS OF THE PENALTY PAYMENT DATE, 16 MONTHS AFTER NONCOMPLIANCE | \$ | <u>395</u> |

$$\text{Avoided} = E/D \times A$$

$$395/344 \times 3,027 = \$ 3,475$$

-->-->-->-->--> THE ECONOMIC BENEFIT CALCULATION ABOVE <--<--<--<--<--<
 USED THE FOLLOWING VARIABLES:

USER SPECIFIED VALUES

| | | |
|---|--|-------------------|
| 1A. CASE NAME = CASCADE GENERAL, INC. | | |
| 1B. PROFIT STATUS = | | FOR-PROFIT |
| 1C. FILING STATUS = | | C-CORPORATION |
| 2. INITIAL CAPITAL INVESTMENT = \$ | | 0 |
| 3. ONE-TIME NONDEPRECIABLE EXPENDITURE = \$ (TAX-DEDUCTIBLE EXPENSE) | | 5052 1997 DOLLARS |
| 4. ANNUAL EXPENSE = \$ | | 0 |
| 5. FIRST MONTH OF NONCOMPLIANCE = | | 5, 1996 |
| 6. COMPLIANCE DATE = | | 9, 1997 |
| 7. PENALTY PAYMENT DATE = | | 9, 1997 |
| 8. USEFUL LIFE OF POLLUTION CONTROL EQUIPMENT = | | 15 YEARS |
| 9. MARGINAL INCOME TAX RATE FOR 1986 AND BEFORE = | | 50.1 % |
| 10. MARGINAL INCOME TAX RATE FOR 1987 TO 1992 = | | 38.4 % |
| 11. MARGINAL INCOME TAX RATE FOR 1993 AND BEYOND = | | 39.3 % |
| 12. ANNUAL INFLATION RATE = | | 1.3 % |
| 13. DISCOUNT RATE: WEIGHTED-AVERAGE COST OF CAPITAL | | 10.9 % |

1997

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OAR 340-102-011 -- Hazardous Waste Determination

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(1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in OAR 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) Persons should first determine if the waste is excluded from regulation under 40 CFR 261.4 or OAR 340-101-004;

(b) Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of OAR 340-101-033;

NOTE: Even if the waste is listed, the generator still has an opportunity under OAR 340-100-022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.

(c) Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is hazardous under Subpart C of 40 CFR Part 261 by either:

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

| | | |
|------------------------|---|---------------------------|
| IN THE MATTER OF |) | |
| CASCADE GENERAL, INC., |) | No. HW-NWR-97-176 |
| an Oregon Corporation, |) | MULTNOMAH COUNTY |
| |) | |
| Respondent. |) | PRE-HEARING MEMORANDUM OF |
| |) | CASCADE GENERAL, INC. |

I. INTRODUCTION

This memorandum sets out the law applicable to Cascade General, Inc.'s ("Cascade") treatment of used Tectyl products 502C and 511M ("Tectyl") as "used oil" consistent with the used oil rules promulgated by the Oregon Department of Environmental Quality (the "Department"). See generally OAR 340-111-0000, et seq. The Department contends that the used Tectyl should not be characterized as used oil and issued a Notice of Violation ("NOV") to Cascade on November 11, 1997.

The NOV alleged that Cascade violated the Department's hazardous waste rules by treating the Tectyl as used oil. Specifically, the NOV stated: (1) Cascade violated OAR 340-102-011(2) by failing to make a hazardous waste determination concerning Tectyl which it disposed in May 1996; and (2) because the Tectyl allegedly was a hazardous waste, Cascade violated 40 CFR § 262.20(a) by failing to prepare a hazardous waste manifest before arranging for the transport of the Tectyl/other used oil mixture.¹

Based on the legal authority discussed below, the evidence at the contested case hearing will show that (1) Cascade did, in fact, conduct a hazardous waste determination on

¹Copies of the statutes, regulations and other documents cited in this Memorandum will be offered into evidence at the hearing of this matter.

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DUCYMAN:man

Attachment N - 10 pages

1 the Tectyl product, and (2) Cascade properly managed the Tectyl as used oil. For these
2 reasons, there is no evidence to support the NOV and the Department's determination should
3 be set aside.

4 **II. FACTUAL BACKGROUND**

5 The evidence at the hearing will show that Cascade, which operates the Portland
6 Shipyard under a contract with the Port of Portland, performed work on the U.S. Navy
7 vessel Andrew J. Higgins in 1995 and 1996. The aim of that work was to prepare the vessel
8 for deactivation. Cascade and its subcontractors circulated Tectyl through many of the
9 vessel's engine systems to protect the interior parts from the rust and corrosion that could
10 result from long periods of nonuse and to provide lubrication at the time the machinery is
11 restarted. The excess Tectyl was recovered after circulation through the engines. The
12 product was mixed with other used oil and delivered to a recycler.

13 The Tectyl oil products are, in the words of their manufacturer, Valvoline, "rust
14 preventative coatings, [which leave] a soft oily film that contains corrosion inhibitors." Ltr.,
15 Tracy G. Smith, Valvoline, to Alan Sprott, Cascade General, 3/25/98. The Tectyl oils have
16 a low flash point because of their mineral spirit content. Each of the two Tectyl products are
17 described specifically in the Valvoline letter:

18 Tectyl 511 M contains mineral spirits, *a petroleum base stock*
19 *(commonly used in crankcase oils)* and two glycol ethers in very
20 low concentrations that are present to ensure an even film
formation.

21 Tectyl 502 C does not contain the glycol ethers, but does
contain unoxidized petrolatum.

22 (Emphasis added.)

23 The Valvoline representative wrote: "They [the Tectyl products] are not paints; the
24 coatings do not cross-link to a hard surface and do not contain any pigmentation or mineral
25 fillers." *Id.* Moreover, the Tectyl oils are designed to be compatible with -- indeed,
26 beneficial to -- the interior workings of engines and other machinery. Their soft oily film

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1 and low flash point are consistent with this purpose.

2 The Department cited Tectyl's low flash point as the reason that it should have been
3 treated as a hazardous waste. Cascade contends that the Tectyl was a used oil exempt from
4 hazardous waste management.

5 The evidence will show that, even though Tectyl is a used oil exempt from the
6 hazardous waste rules, Cascade conducted a hazardous waste determination on the Tectyl
7 before it was disposed by recycling for energy recovery.

8 **III. DISCUSSION**

9 **A. Policy and regulation of hazardous waste and used oil**

10 One of the goals of hazardous waste regulation under the federal Resource
11 Conservation and Recovery Act ("RCRA") -- and the implementing rules and statutes of
12 Oregon law -- is to encourage the recycling and reuse of oil.

13 RCRA itself states:

14 "The Congress finds and declares that --

15 (1) used oil is a valuable source of increasingly scarce
16 energy and materials;

17 (2) technology exists to re-refine, reprocess, reclaim, and
18 otherwise recycle used oil;

19 (3) used oil constitutes a threat to public health and the
20 environment when reused or disposed of improperly; and

21 that, therefore, it is in the national interest to recycle used oil in
22 a manner which does not constitute a threat to public health and
23 the environment and which conserves energy and materials."

24 42 USC § 6901a.

25 RCRA accomplishes these goals by managing the disposal of used oil in ways that are
26 less stringent than those for RCRA "hazardous" wastes:

"The Administrator shall ensure that such regulations
[concerning recycled oil] do not discourage the recovery or
recycling of used oil, consistent with the protection of human
health and the environment."

1 42 USC § 6935(a). For example, management of used oil generally does not require
2 hazardous waste determination or completion of transport manifests unless that oil is mixed
3 with a hazardous waste. 40 CFR § 279.10(b).

4 A review of the federal regulations shows different regulatory regimes governing
5 hazardous waste, on the one hand, and used oil, on the other hand. Hazardous wastes are
6 regulated under 40 CFR Parts 260-266 and 268. Wastes are identified as hazardous in two
7 different ways: They are either specifically listed as hazardous at 40 CFR, Part 261, Subpart
8 D, or they are determined to be hazardous if they exhibit any of four characteristics
9 described at 40 CFR, Part 261, Subpart C. One of those hazardous characteristics is
10 ignitability, or low flashpoint.² 40 CFR § 261.21.

11 But used oil to be recycled is not a hazardous waste because (1) it is not among the
12 listed hazardous wastes at 40 CFR, Part 261, Subpart D, and (2) it is expressly not subject to
13 hazardous waste regulation by 40 CFR § 261.6(a)(4),³ which states:

14
15 "Used oil that is recycled and is also a hazardous waste
16 solely because it exhibits a hazardous characteristic is not
17 subject to the requirements of parts 260 through 268 of this
18 chapter, but is regulated under part 279 of this chapter."

19 This means that used oil -- even if it exhibits a characteristic of hazardous waste, such
20 as low flashpoint -- is not subject to the same testing and management requirements as is
21 hazardous waste, but instead is expressly subject to the less stringent requirements of the
22 used oil rules at 40 CFR Part 279.

23 The Department penalized Cascade for failing to treat the Tectyl like a hazardous
24 waste. Cascade contends that the Tectyl product was a used oil, was exempt from hazardous

25 ²The other characteristics are corrosivity (40 CFR § 261.22), reactivity (40 CFR § 261.23) and
26 toxicity (40 CFR § 261.24).

³Oregon has adopted this exemption into its regulatory scheme through OAR 340-100-002(1) and
340-102-0010(2).

1 waste management and was instead subject to the specialized used oil rules. The issue for
2 hearing, then, is whether the Tectyl was a "used oil."

3 B. Regulatory definition of used oil

4 One of the keys to used oil management scheme is the broad federal definition of
5 "used oil":

6 "Used oil means any oil that has been refined from crude oil, or
7 any synthetic oil, that has been used and as a result of such use
is contaminated by physical or chemical impurities.

8 40 CFR § 279.1.

9 Oregon's comparable used oil rules define "used oil" as follows:

10 "Used Oil" means any oil that has been refined from crude oil,
11 or any synthetic oil that has been used as a lubricant, coolant
(non-contact heat transfer fluids), hydraulic fluid *or for similar*
12 *uses* and as a result of such use is contaminated by physical or
chemical impurities. Used oil includes, *but is not limited to*,
13 used motor oil, gear oil, greases, machine cutting and coolant
oils, hydraulic fluids, brake fluids, electrical insulation oils, heat
14 transfer oils and refrigeration oils. *Used oil does not include*
used oil mixed with hazardous waste except as allowed in 40
CFR 279.10(b), oil (crude or synthetic) based products used as
15 solvents, antifreeze, wastewaters from which the oil has been
recovered, and oil contaminated media or debris[.]"

16 OAR 340-111-0020(c) (emphasis added).

17 The federal regulation and the Oregon regulation are superficially different insofar as
18 the Oregon definition provides specific examples of products which are and are not used oils.
19 However, the regulatory history of both rules shows that the Oregon definition is intended to
20 be consistent with the Environmental Protection Agency's broad interpretation of "used oil."

21 In the Preamble to its regulations adopting the current used oil definition in 1992, the
22 EPA stated:

23 "This regulatory definition of use oil is drawn from the statutory
24 definition of used oil found at section 1004(36) of RCRA
25 EPA believes that this definition covers the majority of oils used
as lubricants, coolants (non-contact heat transfer fluids),
26 emulsions, *or for similar uses* and are likely to get contaminated

1 through use. *Therefore, specific types of used oils are not*
2 *identified in the definition.*"

3 *Id.* (emphasis added).

4 A 1994 memorandum by the director of the Department discusses Oregon's used oil
5 definition. It states that the definition includes examples of "what is and is not a used oil,"
6 and that the examples are "clarifying language to better reflect EPA's intent as described in
7 the rules' preamble . . ." 3/1/94 Memo., Fred Hansen to EQC, pp. 3, 10. In short,
8 Oregon's definition of used oil is neither broader nor narrower than the federal definition,
9 but rather is consistent with that definition.

10 Although the Oregon definition contains a number of identified uses and types of oils,
11 by its own terms those uses and types are not exclusive. The definition is, however, specific
12 about what is not considered "used oil": among them are products used as solvents,
13 antifreeze, and some mixtures of used oil and hazardous waste.

14 EPA's own interpretation of the used oil rule shows that the definition must be
15 interpreted flexibly to meet the Congressional policy of recycling and reusing oil products
16 whenever feasible. A November 1996 EPA Pamphlet entitled "Managing Used Oil: Advice
17 for Small Businesses," describes the three criteria for used oil:

18 (1) Origin: Used oil must have been refined from crude
19 oil or made from synthetic materials.

20 (2) Use: "Oils used as lubricants, hydraulic fluids, heat
21 transfer fluids, buoyants, and for other similar purposes are
22 considered used oil. . . . EPA's definition . . . excludes
23 products used as cleaning agents or solely for their solvent
24 properties, as well as certain petroleum-derived products like
25 antifreeze or kerosene."

26 (3) Contaminants: Used oil is that which has become
contaminated with either physical or chemical impurities.

The EPA pamphlet lists examples of used oil. That nonexclusive list shows the
breadth of the rule. It includes engine oil, transmission fluid, refrigeration oil, compressor
oils, metalworking fluids and oils, laminating oils, industrial hydraulic fluid, copper and

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1 aluminum wire drawing solution, electric insulating oil, industrial process oils, and oils used
2 as buoyants.

3 In contrast, under the heading "Used Oil Is Not," the pamphlet lists just four
4 categories: waste oils that have not actually been used, products such as antifreeze and
5 kerosene, vegetable and animal oil, and petroleum distillates used as solvents.

6 C. Tectyl meets the statutory definition of "used oil"

7 Cascade General will present evidence at the hearing that the used Tectyl is a used oil
8 and was properly treated as such for disposal purposes.

9 Tectyl, being of a "petroleum base stock," falls within both the federal and Oregon
10 definitions of "used oil." Tectyl is petroleum-based oil, is used, and becomes contaminated
11 as a result of its use – as such, it fits well within the federal definition. Oregon's more
12 detailed definition of "used oil," with its open-ended list of descriptors, also includes Tectyl.
13 Tectyl has lubricant properties, like any motor oil. The evidence will show that Tectyl's use
14 as a corrosion inhibitor for internal engine parts is similar to that of most lubrication oils,
15 which have corrosion-prevention characteristics.

16 Moreover, Tectyl is not subject to any of the specific exclusions of the Oregon rules,
17 which are: (1) used oil mixed with hazardous waste, (2) oil-based products used as solvents,
18 (3) antifreeze, (4) wastewaters from which oil has been recovered, or (5) oil-contaminated
19 media or debris.

20 Although Tectyl contains an ingredient that may be used as a solvent in some
21 applications, Tectyl is not used as a solvent. A solvent is "a substance, usually a liquid,
22 capable of dissolving another substance." *The American Heritage College Dictionary* (1993),
23 p. 1296. Solvents are often used for cleaning and degreasing.

24 Tectyl consists largely of petroleum lube oil and "aliphatic hydrocarbons (Stoddard
25 type)." Aliphatic hydrocarbons may be used by themselves in other applications as solvents.
26 However, in Tectyl, these aliphatic hydrocarbons are included to assist in the product's even

1 coating ability. Thus, Tectyl is not "used as" a solvent as the Oregon rules envision.
 2 Rather, it is used to coat, lubricate and prevent rust and other corrosion. As such, it does
 3 not fall under any of Oregon's specific exclusions of "solvents" from the definition of "used
 4 oil."

5 This conclusion is supported by the Department's own interpretation of its use of the
 6 term "solvents." In the 1994 Department memorandum responding to comments about the
 7 definition, the Director concludes that lubricating oil products which have secondary cleaning
 8 properties may nonetheless be considered used oil if their primary purpose is other than as a
 9 solvent:

"Interested parties were concerned that excluding
 'solvents' from the definition of 'used oil' would exclude
 lubricating oils from the definition, since they have secondary
 cleaning property. That, of course, was not the Department's
 intent: lubricating oils do indeed meet the definition of 'used oil'
 when they become spent."

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 14 3/1/94 Hansen Memo., p. 14. This means that a used oil product can still be a "used oil"
 15 under RCRA even if it contains additives, including additives which can act as a solvent in
 16 some applications.

17 The Department has argued that, because Tectyl coats the interior surfaces of engine
 18 systems, it should be considered a paint and managed as such in the hazardous waste
 19 regulatory scheme. The evidence will show that the products are not paints because they do
 20 not contain solids and, after application, lack the durable and permanent finish desirable in
 21 painted surfaces. Tectyl is designed for use in engines and leaves a soft, oily film on the
 22 surfaces of interior parts. That Tectyl acts differently from paint should be no surprise: it is
 23 hard to imagine pouring paint into an engine for any constructive reason.

24 Tectyl, then, fits the regulatory definition of "used oil." Moreover, Cascade's
 25 recycling of used Tectyl comports with the policy behind the used oil recycling program. As
 26 a used oil "generator," Cascade sent the used Tectyl to Oil Re-Refining, which it understands

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1 blended it with other used oils and in turn "marketed" it to third parties for burning and for
 2 energy recovery. To manage used Tectyl as a hazardous waste subverts federal policy and
 3 unnecessarily burdens the system of hazardous waste treatment and disposal. Moreover,
 4 such management "wastes" Tectyl's recycling potential and further diminishes the nation's
 5 ability to conserve its oil resources.

6 The violations and penalties assessed against Cascade lack support in the law and
 7 should be set aside.


8 D. Violation 1 is without merit because Cascade did conduct a hazardous waste
 9 determination

10 The Department assessed penalties for two violations of the hazardous waste laws.
 11 As shown above, the penalties are without merit because it was not appropriate to manage
 12 the used Tectyl under the hazardous waste regulations. Cascade will additionally show that,
 13 even if the hazardous waste regulations applied to the used Tectyl, violation 1 is without
 14 merit. Violation 1 -- resulting in a \$4,500 penalty -- states that Cascade failed to conduct a
 15 hazardous waste determination for the Tectyl before disposal. The evidence will show that
 16 Cascade did in fact conduct a hazardous waste determination, and supplied the appropriate
 17 documentation to the Department.

18 For this additional reason, violation 1 is without merit and should be vacated.

19 DATED January 27, 1999.

20 Respectfully submitted,

21
 22 
 23 John M. Schultz, OSB #91419
 24 Lori Irish Bauman, OSB #87161
 25 Of Attorneys for Respondent
 26 Cascade General, Inc.

12/1/99

CERTIFICATE OF SERVICE

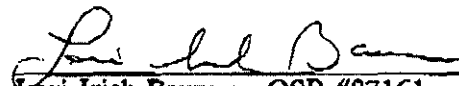
I hereby certify that I served the foregoing PRE-HEARING MEMORANDUM OF
CASCADE GENERAL, INC. on the following parties:

The Honorable Lawrence S. Smith
Administrative Law Judge
FAX: 238-5410

Larry Schurr
Environmental Law Specialist
Department of Environmental Quality
2020 SW 5th Ave., Suite 1400
Portland, OR 97201
FAX: 229-6945

by sending via facsimile a true and correct copy thereof to said parties on the date stated
below.

DATED January 27, 1999.


Lori Irish Bauman, OSB #87161
Of Attorneys for Respondent
Cascade General, Inc.

ATEA WYNNE LLP
Lawyers
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(503) 226-1191

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December 15, 1997

HAND DELIVERED

DEQ Rules Coordinator
Office of the Director
811 S.W. Sixth Avenue
Portland, Oregon 97204

State of Oregon
Department of Environmental Quality

RECEIVED

DEC 15 1997

OFFICE OF THE DEPUTY DIRECTOR

Re: Request for Hearing
Answer
Request for Informal Discussion
Notice of Violation, Compliance Order, and Assessment of Civil Penalty
No. WMC/HW-NWR-97-176
Cascade General, Inc.

This letter is submitted to request the Department rescind the notice of violation (NOV) and resulting civil penalties issued to Cascade General, Inc. (Cascade) on August 11, 1997 and November 11, 1997, respectively. Cascade also requests a formal hearing with the Environmental Quality Commission (EQC) or its hearing officer to contest each alleged violation cited in the NOV, and corresponding civil penalties.

Cascade denies all allegations of fact claimed in Section III, Violations of the Notice of Violation dated November 11, 1997. Specifically, Cascade denies it: 1) failed to perform a hazardous waste determination on 2,775 gallons of Tectyl; 2) failed to perform a hazardous waste determination on a mixture of the Tectyl and 600 gallons of used oil; and 3) offered for transport, without a Hazardous Waste Manifest, a hazardous waste carrying waste code D001. The specific answer to the allegations follows.

The NOV alleged the following violations:

Alleged Violation 1: OAR 340-102-011(2) Failure to perform a waste determination on 2,775 gallons of product called Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with approximately 600 gallons of used oil.

Alleged Violation 2: 40 CFR 262.209(a) Cascade General offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with approximately 600 gallons of used oil.

Alleged Violation 1 presupposes the Tectyl oils were solid wastes and therefore subject to the requirements for hazardous waste determination. This was not the case. The oils consisted of virgin petroleum distillates ignitable by their own nature, and were legitimately suitable for reclamation as a petroleum fuel product. Commercial chemical products are not solid wastes when reclaimed. This determination is analogous to that described by DEQ Policy 96-002, *Petroleum Contaminated Wastewater Management*.

The Used Oil Rules explicitly allow the mixing of used oil and fuel products (40 CFR 279.10(d)). The recycling presumption set forth at 40 CFR 279.10(a) makes a clear distinction between recycling and disposal of used oil. Generators are not required to make a hazardous waste determination for mixtures of used oil and fuel products destined for recycling. Fuel Processor's Management Plan, approved by the Department, allows it to receive and manage unused petroleum products. Consequently, Cascade's actions were in accordance with the Used Oil Rules and a Department approved management plan.

The Department's allegation that a hazardous waste determination was required on the Tectyl and used oil mixture is disputable even if it was determined the Tectyl was an ignitable hazardous waste. 40 CFR 279.10(b)(iii) explicitly provides for the mixing of ignitable hazardous waste with used oil for management under the Used Oil Rules, so long as the resultant mixture no longer exhibits the characteristic of ignitability. The ignitability of the mixture was tested by Fuel Processors at its facility with the result demonstrating the mixture was not ignitable, and therefore, the requirement of 40 CFR 279.10(b)(iii) was met. Documentation of the testing was provided to the Department as an attachment to a letter dated August 1, 1997. Cascade made the legitimate determination the mixture was of used oil and fuel product, and that testing was not required due to the recycling presumption. Even so, testing by Fuel Processors demonstrates the mixture was not a hazardous waste at the point of generation and was appropriately managed under the Used Oil Rules.

Alleged Violation 2 stems directly from Violation 1. Therefore, rescission of Violation 1 negates the remaining violation.

Even if one or both of the alleged violations occurred, Cascade believes that the civil penalty calculations for each are incorrect, especially with regard to the calculation of economic benefit for alleged Violation 2.

DEQ Rules Coordinator

12/15/97

Page 3

Cascade also requests an informal discussion with Mr. Larry Shurr and Cascade's attorney, Mr. John Schultz of the Ater Wynne firm.

If you have questions or require additional information pending the discussion or hearing, please contact the undersigned at (503) 247-1672.

Sincerely,



T. Alan Sprott
Director of Environmental Services
Cascade General, Inc.

c: John Schultz, esq., Ater Wynne
Larry Shurr, esq., NWR DEQ

137

November 18, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

CERTIFIED MAIL P 494 534 446

Cascade General, Inc.
Jonathan A. Ater, Registered Agent
Ater, Wynne, Hewitt, Dodson & Skeritt
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618

Re: Notice of Violation, Compliance
Order, and Assessment of Civil Penalty
No. WMC/HW-NWR-97-176
Multnomah County


ORD 180761934

On July 10 and 11, 1997, Mr. Charles Clinton of the Department of Environmental Quality (Department or DEQ) conducted a hazardous waste compliance inspection of the Fuel Processors, Inc. facility located at 4150 N Suttle Road in Portland, Oregon. During that inspection, Mr. Clinton requested Fuel Processor to submit copies of certain shipping documents for additional investigation by DEQ. Ms. Rebecca Paul, of the Department inspected Fuel Processors' shipping documents, including documents regarding a shipment of Tectyl oils mixed with used oil shipped by Cascade General on or about May 30, 1996, to Oil Re-Refining Company. Ms. Paul concluded that Cascade General had failed to properly identify the Tectyl/Used Oil mixture as a hazardous waste and had shipped it off-site without the required manifest.

In a letter to the Department dated August 1, 1997, Cascade General claimed that no violations occurred because Tectyl was a product, and because the Used Oil Rules should have applied to the management of the Tectyl and used oil mixture. However, an examination of the relevant law and the facts presented by Cascade General confirm that there were violations of Oregon law and DEQ's hazardous waste management regulations. Prior to May 30, 1996, Cascade General had in its inventory 41 unopened barrels of Tectyl left over from work done for the United States Navy. Cascade General kept the Tectyl in its inventory and referred to it as product. On or about May 2, 1996, however, Cascade General contacted Oil Re-Refining in order to dispose of the Tectyl. Once Cascade General made the decision to dispose of the Tectyl, and at least by May 30, 1996, the Tectyl became a solid waste and subject to regulation under RCRA as a hazardous waste, including the requirement to make a hazardous waste determination as provided by OAR 340-102-011.

40 CFR § 261.20 states that any solid waste as defined in § 261.2 which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in Subpart C, including



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1 

Attachment P - 11 pages

ignitability. The waste Tectyl that Cascade General was managing has a flashpoint of approximately 106 degrees and was therefore an ignitable hazardous waste (D001). Cascade General claims that because the Tectyl was mixed with used oil, Part 279 of the CFR, the Used Oil Management Standards, should apply. However, 40 CFR § 279.10(2)(iii) states that regulation of mixtures of used oil and a waste which is hazardous because of ignitability will be regulated as used oil "provided that the resultant mixture does not exhibit the characteristic of ignitability under 40 CFR § 261.21." However, Cascade General did not make another Hazardous Waste Determination on the Tectyl/Used Oil mixture, as required, to show that the mixture was no longer ignitable and exempt from regulation as a hazardous waste.

Several violations were documented as a result of Ms. Paul's inspection of the records concerning the shipment of Tectyl through Oil Re-Refining. Those violations were cited in a Notice of Noncompliance (NON) sent to Cascade General on August 11, 1997, and included shipment of ignitable waste without preparing the required hazardous waste manifest, and failure to properly make hazardous waste determinations for the Tectyl waste or the mixture of the Tectyl and used oil.

In the enclosed Notice of Violation, Compliance Order, and Assessment of Civil Penalty, I have assessed a total of \$14,500 in civil penalties against Cascade General. For failure to make hazardous waste determinations I have assessed a civil penalty of \$4,500. This is a Class I violation. For failure to properly manifest hazardous waste transported for disposal I have assessed a civil penalty of \$10,000. This is a Class I violation and includes economic benefit. By not manifesting and otherwise treating its wastes as hazardous waste instead of used oil, Cascade General has avoided costs of \$3,475. In determining the amount of the each penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibits 1 and 2.

Appeal procedures are outlined in Section VI of the Notice. If you fail to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered against you.

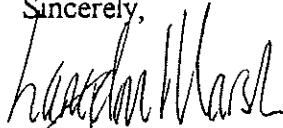
If you wish to discuss this matter, or if you believe there are mitigating factors which the Department might not have considered in assessing the civil penalty, you may request an informal discussion by attaching your request to your appeal. Your request to discuss this matter with the Department will not waive your right to a contested case hearing.

I look forward to your cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, you may be assessed additional civil penalties. Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If you are interested in having a portion of the civil penalty fund an SEP, you should review the enclosed SEP directive.

Cascade General, Inc.
Case No. WMC/HW-NWR-97-176
Page 3

If you have any questions about this action, please contact Larry M. Schurr with the Department's Enforcement Section in Portland at 229-6932 or toll-free at 1-800-452-4011, enforcement extension 6932.

Sincerely,



Langdon Marsh
Director

(e:\cascade97167\cover)

Enclosures

cc: Northwest Region, DEQ
Waste Management and Cleanup Division, DEQ, Jim Vilendre
Oregon Department of Justice
U.S. Environmental Protection Agency
Environmental Quality Commission
Multnomah County District Attorney

1/30/97

1 CLASS I VIOLATIONS:

2 1. On or about May 30, 1996, Respondent violated OAR 340-102-011(2) by failing to
3 make a complete and accurate hazardous waste determination for each solid waste "residue", as
4 defined by OAR 340-100-010(2)(z) and 40 Code of Federal Regulations (CFR) § 261.2 (b)(1),
5 generated by Respondent. Specifically, Respondent failed to perform a hazardous waste determination
6 on 2,775 gallons of waste Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with
7 approximately 600 gallons of used oil. Each waste stream was subsequently determined to be a D001
8 hazardous waste. This is a Class I violation pursuant to OAR 340-12-068(1)(b).

9 2. On or about May 30, 1996, Respondent violated 40 CFR § 262.20(a) by transporting
10 or offering for transportation, hazardous waste for off-site treatment, storage, or disposal without first
11 preparing a Hazardous Waste Manifest. Specifically, without first preparing a Hazardous Waste
12 Manifest, Respondent offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with
13 approximately 600 gallons of used oil, (D001 hazardous waste). This is a Class I violation pursuant to
14 OAR 340-12-068(1)(e).

15 IV. COMPLIANCE ORDER

16 Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby
17 ORDERED to immediately initiate action to correct any continuing violation and come into full
18 compliance with applicable hazardous waste management regulations.

19 V. ASSESSMENT OF CIVIL PENALTIES

20 The Director imposes civil penalties for the violations cited in Section III as follows:

| <u>Violation</u> | <u>Penalty Amount</u> |
|------------------|-----------------------|
| 1 | \$4,500 |
| 2 | \$10,000 |

24 Respondent's total civil penalty is \$14,500

25 The findings and determination of the amounts of Respondent's civil penalties, pursuant to
26 OAR 340-12-045, are attached and incorporated as Exhibits 1 and 2.

27 ///

1 VI. OPPORTUNITY FOR CONTESTED CASE HEARING

2 Respondent has the right to have a formal contested case hearing before the Environmental
3 Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which
4 time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. The
5 request for hearing must be made in writing, must be received by the Department's Rules
6 Coordinator within twenty (20) days from the date of service of this Notice, and must be
7 accompanied by a written "Answer" to the charges contained in this Notice.

8 In the written Answer, Respondent shall admit or deny each allegation of fact contained in this
9 Notice, and shall affirmatively allege any and all affirmative claims or defenses to the assessment of this
10 civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause
11 shown:

- 12 1. Factual matters not controverted shall be presumed admitted;
- 13 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or
14 defense;
- 15 3. New matters alleged in the Answer shall be presumed to be denied unless admitted in
16 subsequent pleading or stipulation by the Department or Commission.

17 Send the request for hearing and Answer to: DEQ Rules Coordinator, Office of the
18 Director, 811 S.W. Sixth Avenue, Portland, Oregon 97204. Following receipt of a request for
19 hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

20 Failure to file a timely request for hearing and Answer may result in the entry of a Default
21 Order for the relief sought in this Notice.

22 Failure to appear at a scheduled hearing or meet a required deadline may result in a dismissal of
23 the request for hearing and also an entry of a Default Order.

24 The Department's case file at the time this Notice was issued may serve as the record for
25 purposes of entering the Default Order.

26 ///

27 ///

1 VII OPPORTUNITY FOR INFORMAL DISCUSSION

2 In addition to filing a request for a contested case hearing, Respondent may also request an
3 informal discussion with the Department by attaching a written request to the hearing request and
4 Answer.

5 VIII PAYMENT OF CIVIL PENALTY

6 The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty
7 becomes final by operation of law or on appeal. Respondent may pay the penalty before that time.
8 Respondent's check or money order in the amount of \$14,500 should be made payable to "State
9 Treasurer, State of Oregon" and sent to the **Business Office, Department of Environmental
10 Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

11
12 11-18-97
13 Date


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12 _____
13 Langdon Marsh, Director
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EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 1: Failure to perform hazardous waste determination.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-068(1)(b).

MAGNITUDE: Pursuant to OAR 340-12-090(3)(a)(C) and (D), the magnitude is moderate. Respondent failed to make a proper hazardous waste determination for two waste streams. That would normally constitute a minor magnitude violation. However, the magnitude is increased one level to moderate because more than 1000 gallons (approximately 2,775 gallons of Tectyl and 3,375 gallons of Tectyl/Used Oil mixture) of waste was involved in the violation.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

- "BP" is the base penalty which is \$3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(e).
- "P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions as follows:
- Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation
 - Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations
 - Case No. WQIW-NWR-97-112A dated 6/18/97: One Class I violation
- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.
- "R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid a foreseeable risk of committing a violation. Respondent is a large quantity generator and knew or should have known to perform a hazardous waste stream determination on the waste and used oil mixture.
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.
- "EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of \$0 as there is insufficient information on which to base a finding.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$3,000 + [(0.1 \times \$3,000) \times (5 - 2 + 0 + 2 + 0)] + \$0 \\ &= \$3,000 + [(\$300) \times (5)] + \$0 \\ &= \$3,000 + \$1,500 + \$0 \\ &= \$4,500 \end{aligned}$$

EXHIBIT 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 2: Offering hazardous waste for transportation without a Manifest.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-068(1)(e).

MAGNITUDE: Pursuant to OAR 340-12-090(3)(d)(i), the magnitude is major. Respondent failed to comply with the hazardous waste management requirements when more than 2,000 gallons of hazardous waste was involved.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
 $BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$

- "BP" is the base penalty which is \$6,000 for a Class I major magnitude violation in the matrix listed in OAR 340-12-042(1)(e).
- "P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions, as follows:
- Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation
 - Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations
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- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.
- "R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid causing the violation. Respondent is a large quantity generator and knew or should have known to manifest hazardous waste transported or offered for transport for off-site treatment, storage, or disposal. Failure to manifest such hazardous waste was failure to take reasonable care to avoid a foreseeable risk of committing the violation.
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.
- "EB" is the approximate dollar sum of the economic benefit that Respondent gained through noncompliance, and receives a value of \$3,475 which represents the cost avoided by failing to dispose of hazardous wastes in the proper manner, as calculated by the US EPA BEN computer model, pursuant to OAR 340-12-045(1)(c)(F)(i) and (iii).

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$6,000 + [(0.1 \times \$6,000) \times (5 - 2 + 0 + 2 + 0)] + \$3,475 \\ &= \$6,000 + [(\$600) \times (5)] + \$3,475 \\ &= \$6,000 + \$3,000 + \$3,475 \\ &= \$12,475 \end{aligned}$$

Pursuant to ORS 466.880(3) the amount of a penalty may not exceed \$10,000 per day.
Therefore: \$10,000 is the adjusted amount of Respondent's penalty for Violation 2

November 18, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

CERTIFIED MAIL P 494 534 446

Cascade General, Inc.
Jonathan A. Ater, Registered Agent
Ater, Wynne, Hewitt, Dodson & Skeritt
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618

Re: Notice of Violation, Compliance
Order, and Assessment of Civil Penalty
No. WMC/HW-NWR-97-176
Multnomah County

ORD 180761934

On July 10 and 11, 1997, Mr. Charles Clinton of the Department of Environmental Quality (Department or DEQ) conducted a hazardous waste compliance inspection of the Fuel Processors, Inc. facility located at 4150 N Suttle Road in Portland, Oregon. During that inspection, Mr. Clinton requested Fuel Processor to submit copies of certain shipping documents for additional investigation by DEQ. Ms. Rebecca Paul, of the Department inspected Fuel Processors' shipping documents, including documents regarding a shipment of Tectyl oils mixed with used oil shipped by Cascade General on or about May 30, 1996, to Oil Re-Refining Company. Ms. Paul concluded that Cascade General had failed to properly identify the Tectyl/Used Oil mixture as a hazardous waste and had shipped it off-site without the required manifest.

In a letter to the Department dated August 1, 1997, Cascade General claimed that no violations occurred because Tectyl was a product, and because the Used Oil Rules should have applied to the management of the Tectyl and used oil mixture. However, an examination of the relevant law and the facts presented by Cascade General confirm that there were violations of Oregon law and DEQ's hazardous waste management regulations. Prior to May 30, 1996, Cascade General had in its inventory 41 unopened barrels of Tectyl left over from work done for the United States Navy. Cascade General kept the Tectyl in its inventory and referred to it as product. On or about May 2, 1996, however, Cascade General contacted Oil Re-Refining in order to dispose of the Tectyl. Once Cascade General made the decision to dispose of the Tectyl, and at least by May 30, 1996, the Tectyl became a solid waste and subject to regulation under RCRA as a hazardous waste, including the requirement to make a hazardous waste determination as provided by OAR 340-102-011.

40 CFR § 261.20 states that any solid waste as defined in § 261.2 which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in Subpart C, including



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

Attachment Q - Exhibits

ignitability. The waste Tectyl that Cascade General was managing has a flashpoint of approximately 106 degrees and was therefore an ignitable hazardous waste (D001). Cascade General claims that because the Tectyl was mixed with used oil, Part 279 of the CFR, the Used Oil Management Standards, should apply. However, 40 CFR § 279.10(2)(iii) states that regulation of mixtures of used oil and a waste which is hazardous because of ignitability will be regulated as used oil "provided that the resultant mixture does not exhibit the characteristic of ignitability under 40 CFR § 261.21." However, Cascade General did not make another Hazardous Waste Determination on the Tectyl/Used Oil mixture, as required, to show that the mixture was no longer ignitable and exempt from regulation as a hazardous waste.

Several violations were documented as a result of Ms. Paul's inspection of the records concerning the shipment of Tectyl through Oil Re-Refining. Those violations were cited in a Notice of Noncompliance (NON) sent to Cascade General on August 11, 1997, and included shipment of ignitable waste without preparing the required hazardous waste manifest, and failure to properly make hazardous waste determinations for the Tectyl waste or the mixture of the Tectyl and used oil.

In the enclosed Notice of Violation, Compliance Order, and Assessment of Civil Penalty, I have assessed a total of \$14,500 in civil penalties against Cascade General. For failure to make hazardous waste determinations I have assessed a civil penalty of \$4,500. This is a Class I violation. For failure to properly manifest hazardous waste transported for disposal I have assessed a civil penalty of \$10,000. This is a Class I violation and includes economic benefit. By not manifesting and otherwise treating its wastes as hazardous waste instead of used oil, Cascade General has avoided costs of \$3,475. In determining the amount of the each penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibits 1 and 2.

Appeal procedures are outlined in Section VI of the Notice. If you fail to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered against you.

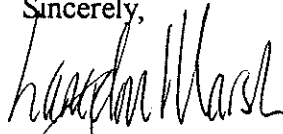
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I look forward to your cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, you may be assessed additional civil penalties. Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If you are interested in having a portion of the civil penalty fund an SEP, you should review the enclosed SEP directive.

Cascade General, Inc.
Case No. WMC/HW-NWR-97-176
Page 3

If you have any questions about this action, please contact Larry M. Schurr with the Department's Enforcement Section in Portland at 229-6932 or toll-free at 1-800-452-4011, enforcement extension 6932.

Sincerely,



Langdon Marsh
Director

(e:\cascade97167\cover)

Enclosures

cc: Northwest Region, DEQ
Waste Management and Cleanup Division, DEQ, Jim Vilendre
Oregon Department of Justice
U.S. Environmental Protection Agency
Environmental Quality Commission
Multnomah County District Attorney

1 CLASS I VIOLATIONS:

2 1. On or about May 30, 1996, Respondent violated OAR 340-102-011(2) by failing to
3 make a complete and accurate hazardous waste determination for each solid waste "residue", as
4 defined by OAR 340-100-010(2)(z) and 40 Code of Federal Regulations (CFR) § 261.2 (b)(1),
5 generated by Respondent. Specifically, Respondent failed to perform a hazardous waste determination
6 on 2,775 gallons of waste Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with
7 approximately 600 gallons of used oil. Each waste stream was subsequently determined to be a D001
8 hazardous waste. This is a Class I violation pursuant to OAR 340-12-068(1)(b).

9 2. On or about May 30, 1996, Respondent violated 40 CFR § 262.20(a) by transporting
10 or offering for transportation, hazardous waste for off-site treatment, storage, or disposal without first
11 preparing a Hazardous Waste Manifest. Specifically, without first preparing a Hazardous Waste
12 Manifest, Respondent offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with
13 approximately 600 gallons of used oil, (D001 hazardous waste). This is a Class I violation pursuant to
14 OAR 340-12-068(1)(e).

15 IV. COMPLIANCE ORDER

16 Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby
17 ORDERED to immediately initiate action to correct any continuing violation and come into full
18 compliance with applicable hazardous waste management regulations.

19 V. ASSESSMENT OF CIVIL PENALTIES

20 The Director imposes civil penalties for the violations cited in Section III as follows:

| <u>Violation</u> | <u>Penalty Amount</u> |
|------------------|-----------------------|
| 1 | \$4,500 |
| 2 | \$10,000 |

24 Respondent's total civil penalty is \$14,500

25 The findings and determination of the amounts of Respondent's civil penalties, pursuant to
26 OAR 340-12-045, are attached and incorporated as Exhibits 1 and 2.

27 ///

1 VI. OPPORTUNITY FOR CONTESTED CASE HEARING

2 Respondent has the right to have a formal contested case hearing before the Environmental
3 Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which
4 time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. **The**
5 **request for hearing must be made in writing, must be received by the Department's Rules**
6 **Coordinator within twenty (20) days from the date of service of this Notice, and must be**
7 **accompanied by a written "Answer" to the charges contained in this Notice.**

8 In the written Answer, Respondent shall admit or deny each allegation of fact contained in this
9 Notice, and shall affirmatively allege any and all affirmative claims or defenses to the assessment of this
10 civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause
11 shown:

- 12 1. Factual matters not controverted shall be presumed admitted;
- 13 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or
14 defense;
- 15 3. New matters alleged in the Answer shall be presumed to be denied unless admitted in
16 subsequent pleading or stipulation by the Department or Commission.

17 Send the request for hearing and Answer to: **DEQ Rules Coordinator, Office of the**
18 **Director, 811 S.W. Sixth Avenue, Portland, Oregon 97204.** Following receipt of a request for
19 hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

20 Failure to file a timely request for hearing and Answer may result in the entry of a Default
21 Order for the relief sought in this Notice.

22 Failure to appear at a scheduled hearing or meet a required deadline may result in a dismissal of
23 the request for hearing and also an entry of a Default Order.

24 The Department's case file at the time this Notice was issued may serve as the record for
25 purposes of entering the Default Order.

26 ///

27 ///

1 VII OPPORTUNITY FOR INFORMAL DISCUSSION

2 In addition to filing a request for a contested case hearing, Respondent may also request an
3 informal discussion with the Department by attaching a written request to the hearing request and
4 Answer.

5 VIII PAYMENT OF CIVIL PENALTY

6 The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty
7 becomes final by operation of law or on appeal. Respondent may pay the penalty before that time.
8 Respondent's check or money order in the amount of \$14,500 should be made payable to "State
9 Treasurer, State of Oregon" and sent to the **Business Office, Department of Environmental
10 Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

11
12 11-18-97

13 Date

14 
15 _____
16 Langdon Marsh, Director

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

- VIOLATION 1: Failure to perform hazardous waste determination.
- CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-068(1)(b).
- MAGNITUDE: Pursuant to OAR 340-12-090(3)(a)(C) and (D), the magnitude is moderate. Respondent failed to make a proper hazardous waste determination for two waste streams. That would normally constitute a minor magnitude violation. However, the magnitude is increased one level to moderate because more than 1000 gallons (approximately 2,775 gallons of Tectyl and 3,375 gallons of Tectyl/Used Oil mixture) of waste was involved in the violation.
- CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$
- "BP" is the base penalty which is \$3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(e).
- "P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions as follows:
- Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation
 - Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations
 - Case No. WQIW-NWR-97-112A dated 6/18/97: One Class I violation
- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.
- "R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid a foreseeable risk of committing a violation. Respondent is a large quantity generator and knew or should have known to perform a hazardous waste stream determination on the waste and used oil mixture..
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.
- "EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of \$0 as there is insufficient information on which to base a finding.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$3,000 + [(0.1 \times \$3,000) \times (5 - 2 + 0 + 2 + 0)] + \$0 \\ &= \$3,000 + [(\$300) \times (5)] + \$0 \\ &= \$3,000 + \$1,500 + \$0 \\ &= \$4,500 \end{aligned}$$

EXHIBIT 2

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

VIOLATION 2: Offering hazardous waste for transportation without a Manifest.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-068(1)(e).

MAGNITUDE: Pursuant to OAR 340-12-090(3)(d)(i), the magnitude is major. Respondent failed to comply with the hazardous waste management requirements when more than 2,000 gallons of hazardous waste was involved.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$6,000 for a Class I major magnitude violation in the matrix listed in OAR 340-12-042(1)(e).

"P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations

Case No. WQIW-NWR-97-112A dated 6/18/97: One Class I violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid causing the violation. Respondent is a large quantity generator and knew or should have known to manifest hazardous waste transported or offered for transport for off-site treatment, storage, or disposal. Failure to manifest such hazardous waste was failure to take reasonable care to avoid a foreseeable risk of committing the violation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.

"EB" is the approximate dollar sum of the economic benefit that Respondent gained through noncompliance, and receives a value of \$3,475 which represents the cost avoided by failing to dispose of hazardous wastes in the proper manner, as calculated by the US EPA BEN computer model, pursuant to OAR 340-12-045(1)(c)(F)(i) and (iii).

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$6,000 + [(0.1 \times \$6,000) \times (5 - 2 + 0 + 2 + 0)] + \$3,475 \\ &= \$6,000 + [(\$600) \times (5)] + \$3,475 \\ &= \$6,000 + \$3,000 + \$3,475 \\ &= \$12,475 \end{aligned}$$

Pursuant to ORS 466.880(3) the amount of a penalty may not exceed \$10,000 per day.
Therefore: \$10,000 is the adjusted amount of Respondent's penalty for Violation 2



December 15, 1997

HAND DELIVERED

DEQ Rules Coordinator
Office of the Director
811 S.W. Sixth Avenue
Portland, Oregon 97204

State of Oregon
Department of Environmental Quality

RECEIVED

DEC 15 1997

OFFICE OF THE DEPUTY DIRECTOR

Re: Request for Hearing
Answer
Request for Informal Discussion
Notice of Violation, Compliance Order, and Assessment of Civil Penalty
No. WMC/HW-NWR-97-176
Cascade General, Inc.

This letter is submitted to request the Department rescind the notice of violation (NOV) and resulting civil penalties issued to Cascade General, Inc. (Cascade) on August 11, 1997 and November 11, 1997, respectively. Cascade also requests a formal hearing with the Environmental Quality Commission (EQC) or its hearing officer to contest each alleged violation cited in the NOV, and corresponding civil penalties.

Cascade denies all allegations of fact claimed in Section III, Violations of the Notice of Violation dated November 11, 1997. Specifically, Cascade denies it: 1) failed to perform a hazardous waste determination on 2,775 gallons of Tectyl; 2) failed to perform a hazardous waste determination on a mixture of the Tectyl and 600 gallons of used oil; and 3) offered for transport, without a Hazardous Waste Manifest, a hazardous waste carrying waste code D001. The specific answer to the allegations follows.

The NOV alleged the following violations:

Alleged Violation 1: OAR 340-102-011(2) Failure to perform a waste determination on 2,775 gallons of product called Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with approximately 600 gallons of used oil.

Alleged Violation 2: 40 CFR 262.209(a) Cascade General offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with approximately 600 gallons of used oil.

EX. B

Alleged Violation 1 presupposes the Tectyl oils were solid wastes and therefore subject to the requirements for hazardous waste determination. This was not the case. The oils consisted of virgin petroleum distillates ignitable by their own nature, and were legitimately suitable for reclamation as a petroleum fuel product. Commercial chemical products are not solid wastes when reclaimed. This determination is analogous to that described by DEQ Policy 96-002, *Petroleum Contaminated Wastewater Management*.

The Used Oil Rules explicitly allow the mixing of used oil and fuel products (40 CFR 279.10(d)). The recycling presumption set forth at 40 CFR 279.10(a) makes a clear distinction between recycling and disposal of used oil. Generators are not required to make a hazardous waste determination for mixtures of used oil and fuel products destined for recycling. Fuel Processor's Management Plan, approved by the Department, allows it to receive and manage unused petroleum products. Consequently, Cascade's actions were in accordance with the Used Oil Rules and a Department approved management plan.

The Department's allegation that a hazardous waste determination was required on the Tectyl and used oil mixture is disputable even if it was determined the Tectyl was an ignitable hazardous waste. 40 CFR 279.10(b)(iii) explicitly provides for the mixing of ignitable hazardous waste with used oil for management under the Used Oil Rules, so long as the resultant mixture no longer exhibits the characteristic of ignitability. The ignitability of the mixture was tested by Fuel Processors at its facility with the result demonstrating the mixture was not ignitable, and therefore, the requirement of 40 CFR 279.10(b)(iii) was met. Documentation of the testing was provided to the Department as an attachment to a letter dated August 1, 1997. Cascade made the legitimate determination the mixture was of used oil and fuel product, and that testing was not required due to the recycling presumption. Even so, testing by Fuel Processors demonstrates the mixture was not a hazardous waste at the point of generation and was appropriately managed under the Used Oil Rules.

Alleged Violation 2 stems directly from Violation 1. Therefore, rescission of Violation 1 negates the remaining violation.

Even if one or both of the alleged violations occurred, Cascade believes that the civil penalty calculations for each are incorrect, especially with regard to the calculation of economic benefit for alleged Violation 2.

DEQ Rules Coordinator

12/15/97

Page 3

Cascade also requests an informal discussion with Mr. Larry Shurr and Cascade's attorney, Mr. John Schultz of the Ater Wynne firm.

If you have questions or require additional information pending the discussion or hearing, please contact the undersigned at (503) 247-1672.

Sincerely,



T. Alan Sprott

Director of Environmental Services

Cascade General, Inc.

c: John Schultz, esq., Ater Wynne
Larry Shurr, esq., NWR DEQ

Ref No: G60134
Agency Case No: WMCHWNWR9717
Case Type: DEQ
Issued By PORTLAND

Date Mailed: 01/04/99
Mailed By: LMV

STATE OF OREGON

NOTICE OF HEARING

CASCADE GENERAL
5555 N CHANNEL AVE
PORTLAND OR 97217 7655

DEPARTMENT OF ENVIRONMENTAL QUALITY
811 SW 6TH AVE
PORTLAND OR 97204 1334

JOHN M. SCHULTZ, ATTORNEY
ALTER WYNNE
222 SE SALMON ST STE 1800
PORTLAND OR 97214 3351

LARRY SCHURR
2020 SW 4TH AVE STE 400
PORTLAND OR 97201 4959

HEARING DATE AND TIME

THURSDAY, JANUARY 28, 1999
9:30 AM PT

HEARING PLACE

DEPT OF ENVIRONMENTAL QUALITY
2020 SW 4TH
4TH FLOOR - CONFERENCE ROOM C
PORTLAND OREGON

ADMINISTRATIVE LAW JUDGE

SMITH L

*If you have questions prior to your hearing, call toll-free: 1-888-577-2422.
If you are calling from the Salem area, please use: 378-2329.*

BE PROMPT AT TIME OF HEARING. INQUIRE IN LOCATION'S LOBBY AREA REGARDING HEARING ROOM. If you need directions, call the above number.

The issue(s) to be considered are:

SEE ATTACHED PAGE FOR ISSUES

EXC

Held by: Employment Department Hearings Section
875 Union Street NE
Salem, OR 97311

DEQ Hearing Issues

Did respondent, Cascade General, fail to make a hazardous waste determination as required by OAR 340-102-011(2), 340-100-010(2)(z), and 40 CFR 261.2(b)(1).

Did respondent, Cascade General, fail to properly manifest hazardous waste transported for disposal, as required by 40 CFR 262.209(a)?

Was the penalty for these violations properly computed as set out in Exhibits 1 & 2, and under OAR 340-12-045, 340-12-068(1)(b); and OAR 340-12-068(1)(e)?

Were Department of Environmental Quality's used oil rules applicable, pursuant to 40 CFR 279.10?

DEPARTMENT OF ENVIRONMENTAL QUALITY HEARINGS

IMPORTANT INFORMATION FOR PREPARING FOR YOUR HEARING

Notice of Contested Case Rights and Procedures

Under ORS 183.413(2), you must be informed of the following:

1. Law that applies. The hearing is a contested case and it will be conducted under ORS Chapter 183 (the Oregon Administrative Procedures Act) and Oregon Administrative Rules (OAR) of the Department of Environmental Quality (DEQ), Chapters 137 and 340.
2. Right to an attorney. You may represent yourself at the hearing, or be represented by an attorney or other representative, such as a partner, officer, or an employee. A representative must provide a written statement of authorization. If you choose to represent yourself, but decide during the hearing that an attorney is necessary, you may request a recess. The hearings officer will decide whether to grant such a request. About half of the parties are not represented by an attorney. DEQ will be represented by an authorized agent, called an environmental law specialist.
3. Presiding Officer. The person presiding at the hearing is known as the hearings officer. The hearings officer will rule on all matters that arise at the hearing. The hearings officer is an administrative law judge for the Employment Department, under contract with the Environmental Quality Commission to perform this service. The hearings officer is not an employee, officer or representative of the agency and does have the authority to make a final independent determination based only on the evidence at the hearing.
4. Witnesses. All witnesses will be under oath or affirmation to tell the truth. All parties and the hearings officer will have the opportunity to ask questions of all witnesses. DEQ will issue subpoenas for witnesses on your behalf if you show that their testimony is relevant to the case and is reasonably needed to establish your position. If you are represented by an attorney, your attorney may issue subpoenas. Payment of witness fees and mileage is your responsibility.
5. Order of evidence. A hearing is similar to a court trial but less formal. The purpose of the hearing is to determine the facts and whether DEQ's action is appropriate. In most cases, DEQ will offer its evidence first in support of its action. You will then have an opportunity to present evidence to oppose DEQ's evidence. Finally, DEQ and you will have an opportunity to rebut any evidence.

Ex. D

Page Three--Notice of Contested Case Rights and Procedures

9. Continuances. There are normally no continuances granted at the end of the hearing for you to present additional testimony or other evidence. Please make sure you have all your evidence ready for the hearing. However, if you can show that the record should remain open for additional evidence, the hearings officer may grant you additional time to submit such evidence.
10. Record. A record will be made of the entire proceeding to preserve the testimony and other evidence for appeal. This will be done by tape recorder. This tape and any exhibits received in the record will be the whole record of the hearing and the only evidence considered by the hearings officer. A copy of the tape is available upon payment of a minimal amount, as established by the Department of Environmental Quality (DEQ). A transcript of the record will not normally be prepared, unless there is an appeal to the Court of Appeals.
11. Appeal. If you are not satisfied with the decision of the Hearings Officer, you have 30 days to appeal his decision to the Environmental Quality Commission. If you wish to appeal its decision, you have 60 days to file a petition for review with the Oregon Court of Appeals from the date of service of the order by the Environmental Quality Commission. See ORS 183.480 et seq.

1
2
3
4 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
5 OF THE STATE OF OREGON

6 IN THE MATTER OF)
7 CASCADE GENERAL, INC.,)
8 an Oregon Corporation,)

9 Respondent.)

No. HW-NWR-97-176
MULTNOMAH COUNTY

PRE-HEARING MEMORANDUM OF
CASCADE GENERAL, INC.

10 I. INTRODUCTION

11 This memorandum sets out the law applicable to Cascade General, Inc.'s ("Cascade")
12 treatment of used Tectyl products 502C and 511M ("Tectyl") as "used oil" consistent with
13 the used oil rules promulgated by the Oregon Department of Environmental Quality (the
14 "Department"). *See generally* OAR 340-111-0000, *et seq.* The Department contends that
15 the used Tectyl should not be characterized as used oil and issued a Notice of Violation
16 ("NOV") to Cascade on November 11, 1997.

17 The NOV alleged that Cascade violated the Department's hazardous waste rules by
18 treating the Tectyl as used oil. Specifically, the NOV stated: (1) Cascade violated OAR 340-
19 102-011(2) by failing to make a hazardous waste determination concerning Tectyl which it
20 disposed in May 1996; and (2) because the Tectyl allegedly was a hazardous waste, Cascade
21 violated 40 CFR § 262.20(a) by failing to prepare a hazardous waste manifest before
22 arranging for the transport of the Tectyl/other used oil mixture.¹

23 Based on the legal authority discussed below, the evidence at the contested case
24 hearing will show that (1) Cascade did, in fact, conduct a hazardous waste determination on

25 _____
26 ¹Copies of the statutes, regulations and other documents cited in this Memorandum will be offered
into evidence at the hearing of this matter.

1 the Tectyl product, and (2) Cascade properly managed the Tectyl as used oil. For these
2 reasons, there is no evidence to support the NOV and the Department's determination should
3 be set aside.

4 II. FACTUAL BACKGROUND

5 The evidence at the hearing will show that Cascade, which operates the Portland
6 Shipyard under a contract with the Port of Portland, performed work on the U.S. Navy
7 vessel Andrew J. Higgins in 1995 and 1996. The aim of that work was to prepare the vessel
8 for deactivation. Cascade and its subcontractors circulated Tectyl through many of the
9 vessel's engine systems to protect the interior parts from the rust and corrosion that could
10 result from long periods of nonuse and to provide lubrication at the time the machinery is
11 restarted. The excess Tectyl was recovered after circulation through the engines. The
12 product was mixed with other used oil and delivered to a recycler.

13 The Tectyl oil products are, in the words of their manufacturer, Valvoline, "rust
14 preventative coatings, [which leave] a soft oily film that contains corrosion inhibitors." Ltr.,
15 Tracy G. Smith, Valvoline, to Alan Sprott, Cascade General, 3/25/98. The Tectyl oils have
16 a low flash point because of their mineral spirit content. Each of the two Tectyl products are
17 described specifically in the Valvoline letter:

18 Tectyl 511 M contains mineral spirits, *a petroleum base stock*
19 *(commonly used in crankcase oils)* and two glycol ethers in very
20 low concentrations that are present to ensure an even film
formation.

21 Tectyl 502 C does not contain the glycol ethers, but does
contain unoxidized petrolatum.

22 (Emphasis added.)

23 The Valvoline representative wrote: "They [the Tectyl products] are not paints; the
24 coatings do not cross-link to a hard surface and do not contain any pigmentation or mineral
25 fillers." *Id.* Moreover, the Tectyl oils are designed to be compatible with -- indeed,
26 beneficial to -- the interior workings of engines and other machinery. Their soft oily film

1 and low flash point are consistent with this purpose.

2 The Department cited Tectyl's low flash point as the reason that it should have been
3 treated as a hazardous waste. Cascade contends that the Tectyl was a used oil exempt from
4 hazardous waste management.

5 The evidence will show that, even though Tectyl is a used oil exempt from the
6 hazardous waste rules, Cascade conducted a hazardous waste determination on the Tectyl
7 before it was disposed by recycling for energy recovery.

8 III. DISCUSSION

9 A. Policy and regulation of hazardous waste and used oil

10 One of the goals of hazardous waste regulation under the federal Resource
11 Conservation and Recovery Act ("RCRA") -- and the implementing rules and statutes of
12 Oregon law -- is to encourage the recycling and reuse of oil.

13 RCRA itself states:

14 "The Congress finds and declares that --

15 (1) used oil is a valuable source of increasingly scarce
16 energy and materials;

17 (2) technology exists to re-refine, reprocess, reclaim, and
18 otherwise recycle used oil;

19 (3) used oil constitutes a threat to public health and the
20 environment when reused or disposed of improperly; and

21 that, therefore, it is in the national interest to recycle used oil in
22 a manner which does not constitute a threat to public health and
23 the environment and which conserves energy and materials."

24 42 USC § 6901a.

25 RCRA accomplishes these goals by managing the disposal of used oil in ways that are
26 less stringent than those for RCRA "hazardous" wastes:

"The Administrator shall ensure that such regulations
[concerning recycled oil] do not discourage the recovery or
recycling of used oil, consistent with the protection of human
health and the environment."

1 42 USC § 6935(a). For example, management of used oil generally does not require
2 hazardous waste determination or completion of transport manifests unless that oil is mixed
3 with a hazardous waste. 40 CFR § 279.10(b).

4 A review of the federal regulations shows different regulatory regimes governing
5 hazardous waste, on the one hand, and used oil, on the other hand. Hazardous wastes are
6 regulated under 40 CFR Parts 260-266 and 268. Wastes are identified as hazardous in two
7 different ways: They are either specifically listed as hazardous at 40 CFR, Part 261, Subpart
8 D, or they are determined to be hazardous if they exhibit any of four characteristics
9 described at 40 CFR, Part 261, Subpart C. One of those hazardous characteristics is
10 ignitability, or low flashpoint.² 40 CFR § 261.21.

11 But used oil to be recycled is not a hazardous waste because (1) it is not among the
12 listed hazardous wastes at 40 CFR, Part 261, Subpart D, and (2) it is expressly not subject to
13 hazardous waste regulation by 40 CFR § 261.6(a)(4),³ which states:

14
15 "Used oil that is recycled and is also a hazardous waste
16 solely because it exhibits a hazardous characteristic is not
17 subject to the requirements of parts 260 through 268 of this
18 chapter, but is regulated under part 279 of this chapter."

19 This means that used oil -- even if it exhibits a characteristic of hazardous waste, such
20 as low flashpoint -- is not subject to the same testing and management requirements as is
21 hazardous waste, but instead is expressly subject to the less stringent requirements of the
22 used oil rules at 40 CFR Part 279.

23 The Department penalized Cascade for failing to treat the Tectyl like a hazardous
24 waste. Cascade contends that the Tectyl product was a used oil, was exempt from hazardous

25 ²The other characteristics are corrosivity (40 CFR § 261.22), reactivity (40 CFR § 261.23) and
26 toxicity (40 CFR § 261.24).

³Oregon has adopted this exemption into its regulatory scheme through OAR 340-100-002(1) and
340-102-0010(2).

1 waste management and was instead subject to the specialized used oil rules. The issue for
2 hearing, then, is whether the Tectyl was a "used oil."

3 B. Regulatory definition of used oil

4 One of the keys to used oil management scheme is the broad federal definition of
5 "used oil":

6 "Used oil means any oil that has been refined from crude oil, or
7 any synthetic oil, that has been used and as a result of such use
is contaminated by physical or chemical impurities.

8 40 CFR § 279.1.

9 Oregon's comparable used oil rules define "used oil" as follows:

10 "'Used Oil' means any oil that has been refined from crude oil,
11 or any synthetic oil that has been used as a lubricant, coolant
(non-contact heat transfer fluids), hydraulic fluid *or for similar*
12 *uses* and as a result of such use is contaminated by physical or
chemical impurities. Used oil includes, *but is not limited to*,
13 used motor oil, gear oil, greases, machine cutting and coolant
oils, hydraulic fluids, brake fluids, electrical insulation oils, heat
14 transfer oils and refrigeration oils. *Used oil does not include*
used oil mixed with hazardous waste except as allowed in 40
15 CFR 279.10(b), oil (crude or synthetic) based products used as
solvents, antifreeze, wastewaters from which the oil has been
16 recovered, and oil contaminated media or debris[.]"

17 OAR 340-111-0020(c) (emphasis added).

18 The federal regulation and the Oregon regulation are superficially different insofar as
19 the Oregon definition provides specific examples of products which are and are not used oils.
20 However, the regulatory history of both rules shows that the Oregon definition is intended to
21 be consistent with the Environmental Protection Agency's broad interpretation of "used oil."

22 In the Preamble to its regulations adopting the current used oil definition in 1992, the
23 EPA stated:

24 "This regulatory definition of use oil is drawn from the statutory
definition of used oil found at section 1004(36) of RCRA
25 EPA believes that this definition covers the majority of oils used
as lubricants, coolants (non-contact heat transfer fluids),
26 emulsions, *or for similar uses* and are likely to get contaminated

1 through use. *Therefore, specific types of used oils are not*
2 *identified in the definition.*"

3 *Id.* (emphasis added).

4 A 1994 memorandum by the director of the Department discusses Oregon's used oil
5 definition. It states that the definition includes examples of "what is and is not a used oil,"
6 and that the examples are "clarifying language to better reflect EPA's intent as described in
7 the rules' preamble . . ." 3/1/94 Memo., Fred Hansen to EQC, pp. 3, 10. In short,
8 Oregon's definition of used oil is neither broader nor narrower than the federal definition,
9 but rather is consistent with that definition.

10 Although the Oregon definition contains a number of identified uses and types of oils,
11 by its own terms those uses and types are not exclusive. The definition is, however, specific
12 about what is not considered "used oil": among them are products used as solvents,
13 antifreeze, and some mixtures of used oil and hazardous waste.

14 EPA's own interpretation of the used oil rule shows that the definition must be
15 interpreted flexibly to meet the Congressional policy of recycling and reusing oil products
16 whenever feasible. A November 1996 EPA Pamphlet entitled "Managing Used Oil: Advice
17 for Small Businesses," describes the three criteria for used oil:

18 (1) Origin: Used oil must have been refined from crude
19 oil or made from synthetic materials.

20 (2) Use: "Oils used as lubricants, hydraulic fluids, heat
21 transfer fluids, buoyants, and for other similar purposes are
22 considered used oil. . . . EPA's definition . . . excludes
23 products used as cleaning agents or solely for their solvent
24 properties, as well as certain petroleum-derived products like
25 antifreeze or kerosene."

26 (3) Contaminants: Used oil is that which has become
contaminated with either physical or chemical impurities.

27 The EPA pamphlet lists examples of used oil. That nonexclusive list shows the
28 breadth of the rule. It includes engine oil, transmission fluid, refrigeration oil, compressor
29 oils, metalworking fluids and oils, laminating oils, industrial hydraulic fluid, copper and

ATER WYNNE LLP
Lawyers
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618
(503) 226-1191

1 aluminum wire drawing solution, electric insulating oil, industrial process oils, and oils used
2 as buoyants.

3 In contrast, under the heading "Used Oil Is Not," the pamphlet lists just four
4 categories: waste oils that have not actually been used, products such as antifreeze and
5 kerosene, vegetable and animal oil, and petroleum distillates used as solvents.

6 C. Tectyl meets the statutory definition of "used oil"

7 Cascade General will present evidence at the hearing that the used Tectyl is a used oil
8 and was properly treated as such for disposal purposes.

9 Tectyl, being of a "petroleum base stock," falls within both the federal and Oregon
10 definitions of "used oil." Tectyl is petroleum-based oil, is used, and becomes contaminated
11 as a result of its use -- as such, it fits well within the federal definition. Oregon's more
12 detailed definition of "used oil," with its open-ended list of descriptors, also includes Tectyl.
13 Tectyl has lubricant properties, like any motor oil. The evidence will show that Tectyl's use
14 as a corrosion inhibitor for internal engine parts is similar to that of most lubrication oils,
15 which have corrosion-prevention characteristics.

16 Moreover, Tectyl is not subject to any of the specific exclusions of the Oregon rules,
17 which are: (1) used oil mixed with hazardous waste, (2) oil-based products used as solvents,
18 (3) antifreeze, (4) wastewaters from which oil has been recovered, or (5) oil-contaminated
19 media or debris.

20 Although Tectyl contains an ingredient that may be used as a solvent in some
21 applications, Tectyl is not used as a solvent. A solvent is "a substance, usually a liquid,
22 capable of dissolving another substance." *The American Heritage College Dictionary* (1993),
23 p. 1296. Solvents are often used for cleaning and degreasing.

24 Tectyl consists largely of petroleum lube oil and "aliphatic hydrocarbons (Stoddard
25 type)." Aliphatic hydrocarbons may be used by themselves in other applications as solvents.
26 However, in Tectyl, these aliphatic hydrocarbons are included to assist in the product's even

1 coating ability. Thus, Tectyl is not "used as" a solvent as the Oregon rules envision.
2 Rather, it is used to coat, lubricate and prevent rust and other corrosion. As such, it does
3 not fall under any of Oregon's specific exclusions of "solvents" from the definition of "used
4 oil."

5 This conclusion is supported by the Department's own interpretation of its use of the
6 term "solvents." In the 1994 Department memorandum responding to comments about the
7 definition, the Director concludes that lubricating oil products which have secondary cleaning
8 properties may nonetheless be considered used oil if their primary purpose is other than as a
9 solvent:

10
11 "Interested parties were concerned that excluding
12 'solvents' from the definition of 'used oil' would exclude
13 lubricating oils from the definition, since they have secondary
14 cleaning property. That, of course, was not the Department's
15 intent: lubricating oils do indeed meet the definition of 'used oil'
16 when they become spent."

17 3/1/94 Hansen Memo., p. 14. This means that a used oil product can still be a "used oil"
18 under RCRA even if it contains additives, including additives which can act as a solvent in
19 some applications.

20 The Department has argued that, because Tectyl coats the interior surfaces of engine
21 systems, it should be considered a paint and managed as such in the hazardous waste
22 regulatory scheme. The evidence will show that the products are not paints because they do
23 not contain solids and, after application, lack the durable and permanent finish desirable in
24 painted surfaces. Tectyl is designed for use in engines and leaves a soft, oily film on the
25 surfaces of interior parts. That Tectyl acts differently from paint should be no surprise: it is
26 hard to imagine pouring paint into an engine for any constructive reason.

27 Tectyl, then, fits the regulatory definition of "used oil." Moreover, Cascade's
28 recycling of used Tectyl comports with the policy behind the used oil recycling program. As
29 a used oil "generator," Cascade sent the used Tectyl to Oil Re-Refining, which it understands

1 blended it with other used oils and in turn "marketed" it to third parties for burning and for
2 energy recovery. To manage used Tectyl as a hazardous waste subverts federal policy and
3 unnecessarily burdens the system of hazardous waste treatment and disposal. Moreover,
4 such management "wastes" Tectyl's recycling potential and further diminishes the nation's
5 ability to conserve its oil resources.

6 The violations and penalties assessed against Cascade lack support in the law and
7 should be set aside.

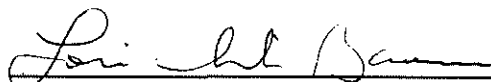
8 D. Violation 1 is without merit because Cascade did conduct a hazardous waste
9 determination

10 The Department assessed penalties for two violations of the hazardous waste laws.
11 As shown above, the penalties are without merit because it was not appropriate to manage
12 the used Tectyl under the hazardous waste regulations. Cascade will additionally show that,
13 even if the hazardous waste regulations applied to the used Tectyl, violation 1 is without
14 merit. Violation 1 -- resulting in a \$4,500 penalty -- states that Cascade failed to conduct a
15 hazardous waste determination for the Tectyl before disposal. The evidence will show that
16 Cascade did in fact conduct a hazardous waste determination, and supplied the appropriate
17 documentation to the Department.

18 For this additional reason, violation 1 is without merit and should be vacated.

19 DATED January 27, 1999.

20 Respectfully submitted,

21
22 

23 John M. Schultz, OSB #91419
24 Lori Irish Bauman, OSB #87161
25 Of Attorneys for Respondent
26 Cascade General, Inc.

OIL RE-REFINING COMPANY
701 BOZARTH STREET
P.O. BOX 1407
HOODLAND, WA 98674
PHONE 509-286-8652
EPA #WA0980926012

Bob Lewis
920-3761

* I N V O I C E *

Invoice Number: 103020

Invoice Date: 06/04/96

Page: 1

Sold Cascade General **
To: 5555 N. Channel
Portland, OR
97217

Ship Cascade General **
To: 5555 N. Channel
Portland, OR
97217

Ship Via.: ORROO
Ship Date: 05/30/96
Due Date.: 06/14/96
Terms.....: NET 10 DAYS

Cust I.D.....: 2437
P.O. Number...: 7459
P.O. Date.....: 05/30/96
Job/Order No.: 38055
Salesperson...:

| Item I.D./Desc. | Ordered | Shipped | Unit | Price | Net | TX |
|-----------------|---------|---------|------|--------|--------|----|
| 1 Used Oil | 2775.00 | 2775.00 | GAL | 0.3500 | 971.25 | E |

EX 101

Subtotal: 971.25
Tax.....: 0.00
Payments: 0.00
Total....: 971.25

OIL RE-REFINING CO., INC.

No. 38055

701 Bozarth
P.O. Box 1407
Woodland, WA 98674
EPA # WAD 980986012

24 Hour Emergency
(503) 286-8352
1-800-367-8894

Cust. I.D. 2437
Call Back _____

| Generator <u>CASCADE GENERATOR</u> Date <u>5/30/96</u> | | Billing Address | | | |
|---|---|-----------------------------|-----------------|---------------|----------------------|
| <small>Name</small> <u>5555 N. CHANDLER</u> <small>Contact</small> <u>Portland (Oregon)</u> <u>97217</u> | | <u>Same</u> | | | |
| <small>Address</small> <u>5555 N. CHANDLER</u> <small>City</small> <u>Portland</u> <small>State</small> <u>OR</u> <small>Zip</small> <u>97217</u> <small>Phone</small> | | | | | |
| Consigned To: <u>FUEL PROCESSORS</u> | | Payment Terms | | | |
| Destination: <u>4150 N. SUTTLE ROAD PORTLAND, OREGON</u> | | CK# _____ P.O.# <u>7459</u> | | | |
| Via Carrier: <u>ORR CO EPA# 980975642 OR</u> | | Load Ticket # | | | |
| Driver: <u>P. Baker</u> Truck No.: <u>2324</u> Miles Run: _____ | | <u>961008</u> | | | |
| Gallons | Description | Weight | Rate Per Gallon | Rate Per Hour | Charge Paid |
| | <u>COMBUSTIBLE LIQUID NOS WA 1993 III</u> | | <u>.50</u> | | <u>971.25</u> |
| <u>2775</u> | <u>USED OIL</u> | | | | |
| | <u>Sniff Test ok</u> | | | | |
| | <u>Clear & TEST 50 PPM</u> | | | | |
| | <u>TRANSFER FOR RECYCLING</u> | | | | |
| Total | | | | | <u>971.25</u> |
| <p>Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, PCB's at greater concentrations greater than 2 PPM (or 50 PPM with Manifest), or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any equivalent State hazardous waste or hazardous substance classification program. Should laboratory tests find this waste product not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.</p> | | | | | |
| Signed <u>Chris Taylor</u> | | Date <u>5-30-96</u> | | | |

EX. 102

10

OK JOHN
PER 5/8/96
(initials)

QUOTE - 35
GALLON



Portland Shipyard
6565 N. Channel Ave., P.O. Box 4367, Portland, Oregon 97208 Phone (503) 285-1111 Fax #: (503) 978-0391

Support Services Department
Safety, Worker's Comp., Facilities, and Environmental Compliance

DATE: 5-2-96

TO: Oil Refining

ATTENTION: DAVE Keck

FAX NUMBER: 286-5027 # PAGES (including cover) ELEVEN (11)

FROM: Chris Tompkins PH. 978-0408

NOTES:

Please take a look at THESE MSDS AND LET ME
KNOW IF THIS WILL BE AN ACCEPTABLE PRODUCT THAT
YOU CAN EXCEPT.

There is APPROX:
24 BBLs (55gal) of TECTYL 511M,
AND 17 BBLs (55gal) of TECTYL 502C,

I Am INTERESTED in Pricing AND AVAILABILITY
for transportation

Thank you
Chris

Ex: 103
~~(# pages)~~

NEED TELL
METALS
AND FLASH
5/3/96
(initials)

Please call the person noted above if transmittal is not successful.



PRODUCT INFORMATION

VALVOLINE INDUSTRIAL COATINGS • A DIVISION OF ASHLAND INC.



TECTYL® 502C, Class I

Description

TECTYL 502C, Class I is a solvent cutback, corrosion preventive compound. The semi-film film is amber and translucent. TECTYL 502C, Class I is approved under Military Specifications MIL-C-16173E, Grade 2, for Class I, and MIL-P-116J, Type P-2. It is designed

to protect ferrous and non-ferrous parts for indoor or covered storage and during shipment. The cured film of TECTYL 502C, Class I is compatible with a variety of oils and greases.

Laboratory Data

Typical Properties

| | English | Metric |
|---|-----------------------|-------------------|
| Flash, PMCC*, Minimum | 106°F | 41.1°C |
| Density, Weight/Gallon @ 77°F (25°C) | 7.2 ± 0.1 lbs./gallon | 862 grams/L |
| Specific Gravity @ 60°F (15.5°C) | 0.87 | |
| Recommended Dry Film Thickness over Metal Profile | 1.0 mil | 25 microns |
| Theoretical Coverage @ Recommended DFT | 850 sq. ft./gallon | 20.9 sq. meters/L |
| Non-Volatile % by Weight | 58 ± 2.5 | |
| Non-Volatile % by Volume | 53 ± 1 | |
| Volatile Organic Content (VOC), Maximum | 3.23 lbs./gallon | 367 grams/L |
| Approximate Dry to Touch Time @ 77°F (25°C) | 1 hour | |
| Cure Time | 24 hours | |

Accelerated Corrosion Tests:

| | |
|--|------|
| 5% Salt Spray (Hours) | |
| ASTM** B-117 @ Recommended DFT (2.24x1/8 in. Polished Steel Panels) | 720 |
| 100% Relative Humidity (Hours) | |
| ASTM D-1745 @ Recommended DFT (2.24x1/8 in. Polished Steel Panels) | 1200 |

*PMCC (Penske Marsh Closed Cup)

**ASTM (American Society for Testing and Materials)

Ex. 104
(5 pages)

~~104~~

TOTAL P. 87

Surface Preparation

The maximum performance of TECTYL 502C, Class I can be achieved only when the metal surfaces to be protected are clean, dry and free of rust, oil and mill scale. Valvoline Industrial Coatings recommends that the metal substrate temperature be 50-95°F (10-35°C) at the time of product application.

Application

TECTYL 502C, Class I is formulated to be used as supplied. Ensure uniform consistency prior to use. Continued stirring is generally not required. If the product thickens due to cold storage or loss of solvent during use, contact Valvoline Industrial Coatings. DO NOT THIN TECTYL 502C, Class I. Incorrect thinning will affect film build, dry time and product performance. Valvoline Industrial Coatings recommends that the ambient and product temperature be 50 - 95° F (10 - 35°C) at time of application. TECTYL 502C, Class I can be spray or dip applied. DO NOT FREEZE TECTYL 502C, Class I.

Removal

TECTYL 502C, Class I can be removed with TECTYL HPS solventborne thinner, vapor degreasing, hot alkaline wash, or low pressure steam. TECTYL 502C, Class I can be removed from fabrics by normal dry cleaning procedures. Avoid the use of chlorinated or highly aromatic solvents when removing from painted surfaces, as these solvents may adversely affect paint.

Storage

Store TECTYL 502C, Class I at temperatures between 50-95°F (10-35°C). Mild agitation is recommended prior to use.

Caution

Adequate ventilation is required for cure and to ensure against formation of a combustible liquid. THE PARTIALLY CURED FILM SHOULD NOT BE EXPOSED TO IGNITION SOURCES SUCH AS FLARES, FLAMES, SPARKS, EXCESSIVE HEAT, OR TORCHES. Refer to Ashland Inc.'s Material Safety Data Sheet for additional handling and first aid information.

Note:

The addition of any product over or under this coating is not recommended. The use of additional coatings could result in chemical incompatibility, thus adversely affecting the performance of this coating as stated in the lab data section. If a primer other than Valvoline Industrial Coatings' recommended product is required, written authorization must be obtained from Valvoline Industrial Coatings, P.O. Box 14000, Lexington, KY, 40512 (800-231-6022).

VIC 1/86 (Supersedes all previous printings)

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material. Freedom to use any patents owned by Ashland or others is not to be inferred from any statement contained herein.

72-62-7625-11
**MATERIAL SAFETY
 DATA SHEET**



THE VALVOLINE COMPANY
 Division of Ashland Oil, Inc.
 P.O. BOX 14000
 LEXINGTON, KENTUCKY 40512
 (606) 264-7000

Emergency
 Telephone
 1 (800) 274-5263 or
 1-800-ASHLAND

99344

TECTYL 502C

Page: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: TECTYL 502C

F & L COMPANY
 1537 E DEL AHO

CARSON CA 90744

ATTN: PLANT MGR / SAFETY DIR.

00 79 000 082813-000

PRODUCT: 50010540
 INVOICE: 707482
 INVOICE DATE: 07/29/94
 TO: F & L COMPANY
 1537 E DEL AHO

CARSON CA 90744

Data Sheet No: 0001457-009.000
 Prepared: 06/11/94
 Supersedes: 05/25/94
 Print Date: 06/13/94

SECTION I-PRODUCT IDENTIFICATION

General or Generic ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II-COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION. SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | Percent | PEL | TLV | Moist |
|--|---------|---------|---------|-------|
| OXYGENATED HYDROCARBON | 25-30 | | | (1) |
| SODIUM PETROLEUM SULFONATE CAS #: 40090-20-4 | 10-15 | | | (2) |
| ALIPHATIC HYDROCARBONS (STANDARD TYPE) CAS #: 8052-01-5 | 30-35 | 100 PPM | 100 PPM | (3) |
| PETROLEUM DISTILLATE CAS #: 64742-52-5 | 10-15 | 5 MG/MS | 5 MG/MS | (4) |

NOTES:

(1) THIS PRODUCT CONTAINS A MAXIMUM OF 10% ZINC COMPOUNDS. ZINC COMPOUNDS ARE REPORTABLE UNDER SECTION 313 OF SARA/TITLE III.

PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

(2) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS.

(3) NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1000 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.

(4) PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CUM.

SECTION III-PHYSICAL DATA

| | | |
|------------------------|------------------------|--|
| Boiling Point | for COMPONENT(30-35%) | 315.00 Deg F (157.22 Deg C) 700.00 mm Hg |
| Vapor Pressure | for COMPONENT(30-35%) | 2.00 mm Hg (48.00 Deg F) (20.00 Deg C) |
| Specific Vapor Density | | HEAVIER THAN AIR |
| Specific Gravity | | 0.870 (77.00 Deg F) (25.00 Deg C) |
| Percent Volatiles | | 30-35% |
| Evaporation Rate | | SLOWER THAN ETHER |
| Appearance | | AMBER |
| State | | LIQUID |

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(PHOS) 106.0 Deg F (42.2 Deg C)

EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER - 1.0%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS: CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, SULFUR COMPOUNDS, ETC.

CONTINUED ON PAGE: 2

| | | | |
|---|--|--|--|
| <p>72-62-7823-11</p> <p>MATERIAL SAFETY DATA SHEET</p> |  | <p>THE VALVOLINE COMPANY Division of Ashland Inc. P.O. BOX 14000 LEXINGTON, KENTUCKY 40512 (804) 264-7000</p> | <p>24-hour Emergency Telephone 1 (800) 274-5263 or 1-800-ASHLAND</p> |
|---|--|--|--|

000149

TECTYL 502C CLASS I

Page

SECTION IV-FIRE AND EXPLOSION INFORMATION (Continued)

PERSONAL PROTECTIVE EQUIPMENT SECTION OF THIS MSDS.

SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 2 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF ACUTE OVEREXPOSURE:

EYES - EXPOSURE CAUSES EYE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, AND SWELLING.
SKIN - EXPOSURE CAUSES SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY DRY THE SKIN. SYMPTOMS MAY INCLUDE REDNESS, BURNING, DRYING AND CRACKING. SKIN BURNS AND SKIN DAMAGE. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

ADDITIONAL SYMPTOMS OF SKIN CONTACT MAY INCLUDE:

-ALLERGIC SKIN REACTION-

-BREATHING - EXPOSURE TO VAPOR OR MIST IS POSSIBLE.

SHORT-TERM INHALATION TOXICITY IS LOW. BREATHING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; BREATHING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

-IRRITATION (NOSE, THROAT, RESPIRATORY TRACT)- PRE-EXISTING LUNG DISORDERS, E.G. ASTHMA-LIKE CONDITIONS.

MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

-CENTRAL NERVOUS SYSTEM DEPRESSION (DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE,

UNCOORDINATION)-

-AND DEATH-

SWALLOWING - SINGLE DOSE ORAL TOXICITY IS LOW. SWALLOWING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

-GASTROINTESTINAL IRRITATION (NAUSEA, VOMITING, DIARRHEA)-

THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND/OR DAMAGE.

FIRST AID:

IF ON SKIN: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. LAUNDRY CLOTHING BEFORE REUSE.

IF IN EYES: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES WITH WATER WHILE HOLDING EYELIDS APART. IF SYMPTOMS PERSIST OR THERE IS ANY VISUAL DIFFICULTY, SEEK MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION HAZARD. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, PLACE ON LEFT SIDE WITH THE HEAD DOWN. SEEK MEDICAL ATTENTION. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.

IF BREATHED: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. SEEK IMMEDIATE MEDICAL ATTENTION. KEEP PERSON WARM AND QUIET. IF PERSON IS NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION, SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE:

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS: CENTRAL NERVOUS SYSTEM EFFECTS

SECTION VI REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH: STRONG OXIDIZING AGENTS

SECTION VII SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

SMALL SPILL: ABSORB LIQUID ON VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSON NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS, SEWERS, STREAMS OR OTHER BODIES OF WATER. PREVENT FROM SPREADING. IF RUNOFF OCCURS, NOTIFY AUTHORITIES AS REQUIRED. PUMP OR VACUUM TRANSFER SPILLED PRODUCT TO CLEAN CONTAINERS FOR RECOVERY. ABSORB UNRECOVERABLE PRODUCT. TRANSFER CONTAMINATED ABSORBENT, SOIL AND OTHER MATERIALS TO CONTAINERS FOR DISPOSAL.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURRED.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CONTINUED ON PAGE: 3

72-62-7825-11

MATERIAL SAFETY
DATA SHEET

THE VALVOLINE COMPANY

Division of Ashland Oil, Inc.

P.O. BOX 14000

LEXINGTON, KENTUCKY 40512

(606) 264-7000

24-hour
Emergency
Telephone
1 (800) 274-5263 or
1-800-ASHLAND

1344

TECTYL 502C

Page: 3

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED (Continued)

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS: NEOPRENE, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. CONSULT YOUR SAFETY REPRESENTATIVE.

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS DATASHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

SECTION X-LABEL INFORMATION**CAUTION!**

COMBUSTIBLE LIQUID AND VAPOR

MAY CAUSE EYE AND SKIN IRRITATION.

INHALATION OF VAPOR MAY CAUSE IRRITATION OF NASAL AND RESPIRATORY PASSAGES.

SWALLOWING MAY CAUSE IRRITATION OF MOUTH, ESOPHAGUS, AND GASTROINTESTINAL SYSTEM AND MAY BE FATAL.

HANDLING & STORAGE:

KEEP AWAY FROM HEAT AND OPEN FLAME. USE OR STORE ONLY WITH ADEQUATE VENTILATION. MAINTAIN AMBIENT AIR CONCENTRATION(S) BELOW PERMISSIBLE EXPOSURE LIMITS. AVOID CONTACT WITH EYES AND PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR SAFETY GLASSES OR GOGGLES, RESISTANT GLOVES, AND OTHER APPROPRIATE PROTECTIVE EQUIPMENT ESSENTIAL FOR YOUR OPERATION. MINIMIZE EXPOSURE THROUGH GOOD HYGIENIC PRACTICES. DO NOT TRANSFER TO UNLABELED CONTAINER. DO NOT USE CUTTING OR WELDING TORCH ON THIS CONTAINER (EVEN EMPTY). FOR INDUSTRIAL USE ONLY.

FIRST AID:

EYES: FLUSH THOROUGHLY WITH WATER. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN: WASH THOROUGHLY WITH SOAP AND WATER.

INHALATION: IF AFFECTED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION.


INGESTION: DO NOT INDUCE VOMITING. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

CHRONIC INFORMATION:

CONTAINS: PETROLEUM DISTILLATES. CONTAINS MATERIAL(S) WHICH MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.

*** COMPONENTS APPEAR IN SECTION II ***

LAST PAGE--SEE ATTACHMENT PAGE ENCLOSED--LAST PAGE

| | | | |
|--|--|--|---|
| 72-62-7825-11 MATERIAL SAFETY DATA SHEET |  | THE VALVOLINE COMPANY Division of Ashland, Inc. P.O. BOX 14000 LEXINGTON, KENTUCKY 40512 (606) 264-7000 | 24-hour Emergency Telephone 1 (800) 274-5263 or 1-800-ASHLAND |
|--|--|--|---|

808150 Page 1
 TECTYL 511M, CLASS I
 THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: TECTYL 511M, CLASS I

F & L COMPANY
 1537 E DEL AVO
 CARSON CA 90746
 ATTN: PLANT MGR / SAFETY DIR.

68 79 800 0828913-000

PRODUCT: 50811511
 INVOICE: 199855
 INVOICE DATE: 03/27/95
 TO: F & L COMPANY
 1537 E DEL AVO
 CARSON CA 90746

Data Sheet No: 808150V-012.005
 Prepared: 02/15/95
 Supersedes: 02/05/95
 Print Date: 04/02/95

SECTION I-PRODUCT IDENTIFICATION

General or Generic ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION. SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | Percent | PEL | TLV | M2 ¹ |
|--|---------|---------|---------|-----------------|
| OXYGENATED HYDROCARBON | 10-15 | | | (1) |
| SODIUM PETROLEUM SULFONATE CAS #: 68688-26-4 | 1-10 | | | (2) |
| ALIPHATIC HYDROCARBONS (STODDARD TYPE) CAS #: 8052-41-3 | 45-50 | 100 PPM | 100 PPM | (3) |
| PETROLEUM LUBE OIL CAS #: 64742-65-0 | 25-30 | 5 MG/MS | 5 MG/MS | (4) |
| ETHYLENE GLYCOL MONOPROPYL ETHER CAS #: 2807-30-9 | 1-5 | | | |
| PROPYLENE GLYCOL MONOPROPYL ETHER CAS #: 1549-01-3 | 1-5 | | | (6) |

Notes:

- (1) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 THIS PRODUCT CONTAINS A MAXIMUM OF 100% ZINC COMPOUNDS. ZINC COMPOUNDS ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III.
- (2) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS.
- (3) NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1000 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.
- (4) PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CUM.
- (5) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 SUPPLIER RECOMMENDS A WORKPLACE EXPOSURE LIMIT OF 25 PPM-TWA, "SKIN NOTATION".
 THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.
- (6) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

SECTION III-PHYSICAL DATA

| | | | |
|------------------------|------------------------|-------------------|--|
| Boiling Point | for COMPONENT(45-50X) | | |
| | | 315.00 Deg F | |
| | | 157.22 Deg C | |
| | | 700.00 mm Hg | |
| Vapor Pressure | for COMPONENT(45-50X) | 2.00 mm Hg | |
| | | 65.00 Deg F | |
| | | 20.00 Deg C | |
| Specific Vapor Density | | HEAVIER THAN AIR | |
| Specific Gravity | | .841 | |
| | | 77.00 Deg F | |
| | | 25.00 Deg C | |
| Percent Volatiles | | 50-55% | |
| Evaporation Rate | | SLOWER THAN ETHER | |
| Appearance | | AMBER | |

CONTINUED ON PAGE: 2

Ex. 105
(5 pages)

72-62-7825-11

MATERIAL SAFETY
DATA SHEET

THE VALVOLINE COMPANY

Division of Ashland Inc.

P.O. BOX 14000

LEXINGTON, KENTUCKY 40512

(606) 284-7000

24-hour
Emergency
Telephone
1 (800) 274-5283 or
1-800-ASHLAND

088158

TECTYL 511M, CLASS I

Page 2

SECTION III PHYSICAL DATA (Continued)

State

LIQUID

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(PHCC) 196.8 Deg F (42.1 Deg C)

EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER - 1.0%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM: CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR A SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WITH APPROPRIATE TURN-OUT GEAR AND CHEMICAL RESISTANT PERSONAL PROTECTIVE EQUIPMENT. REFER TO THE PERSONAL PROTECTIVE EQUIPMENT SECTION OF THIS MSDS.

WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER.

SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 2 REACTIVITY- 5

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF ACUTE OVEREXPOSURES:

EYES - EXPOSURE CAUSES EYE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, AND SWELLING.

SKIN - EXPOSURE CAUSES SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY DRY THE SKIN. SYMPTOMS MAY INCLUDE REDNESS, BURNING, DRYING AND CRACKING. SKIN BURNS AND SKIN DAMAGE. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

SKIN ABSORPTION IS POSSIBLE, AND MAY CONTRIBUTE TO SYMPTOMS OF TOXICITY FROM OTHER ROUTES OF EXPOSURE.

ADDITIONAL SYMPTOMS OF SKIN CONTACT MAY INCLUDE:

- ALLERGIC SKIN REACTION-
- BREATHING - EXPOSURE TO VAPOR OR MIST IS POSSIBLE.
- SHORT-TERM INHALATION TOXICITY IS LOW. BREATHING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; BREATHING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

- IRRITATION (NOSE, THROAT, RESPIRATORY TRACT)- PRE-EXISTING LUNG DISORDERS, E.G. ASTHMA-LIKE CONDITIONS, MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.
- CENTRAL NERVOUS SYSTEM DEPRESSION (DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, UNCOORDINATENESS)-
- AND DEATH

SWALLOWING - SINGLE DOSE ORAL TOXICITY IS LOW. SWALLOWING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

- GASTROINTESTINAL IRRITATION (NAUSEA, VOMITING, DIARRHEA)-

THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND/OR DAMAGE.

FIRST AID:

IF ON SKIN: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. LAUNDRY CLOTHING BEFORE REUSE.

IF IN EYES: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES GENTLY WITH WATER WHILE HOLDING EYELIDS APART. IF SYMPTOMS PERSIST OR THERE IS ANY VISUAL DIFFICULTY, SEEK MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION HAZARD. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, PLACE ON LEFT SIDE WITH THE HEAD DOWN. SEEK MEDICAL ATTENTION. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.

IF BREATHED: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. SEEK IMMEDIATE MEDICAL ATTENTION. KEEP PERSON WARM AND QUIET. IF PERSON IS NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION, SKIN CONTACT, SKIN ABSORPTION

EFFECTS OF CHRONIC OVEREXPOSURE:

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN LABORATORY ANIMALS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS IN HUMANS: ADRENAL, LIVER ABNORMALITIES, KIDNEY DAMAGE, LUNG DAMAGE, BLOOD ABNORMALITIES, TESTIS DAMAGE, SPLEEN DAMAGE

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS: CENTRAL NERVOUS SYSTEM EFFECTS

SECTION VI REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

CONTINUED ON PAGE: 3

| | | | |
|--|--|--|---|
| 72-42-7825-11 MATERIAL SAFETY DATA SHEET |  | THE VALVOLINE COMPANY <small>Division of Ashland Inc.</small> P.O. BOX 14000 LEXINGTON, KENTUCKY 40512 (506) 264-7000 | 24-hour Emergency Telephone 1 (800) 274-5263 or 1-800-ASHLAND |
|--|--|--|---|

006150

TECTYL 511M, CLASS I

Page 3

SECTION VI-REACTIVITY DATA (Continued)**INCOMPATIBILITY: AVOID CONTACT WITH: STRONG OXIDIZING AGENTS****SECTION VII-SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:****SMALL SPILL: ABSORB LIQUID ON VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL.**

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLAMES, FLARES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS, SEWERS, STREAMS OR OTHER BODIES OF WATER. PREVENT FROM SPREADING. IF RUNOFF OCCURS, NOTIFY AUTHORITIES AS REQUIRED. PUMP OR VACUUM TRANSFER SPILLED PRODUCT TO CLEAN CONTAINERS FOR RECOVERY. ABSORB UNRECOVERABLE PRODUCT. TRANSFER CONTAMINATED ABSORBENT, SOIL AND OTHER MATERIALS TO CONTAINERS FOR DISPOSAL.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURRED.

WASTE DISPOSAL METHOD:**SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.****LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.****SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED**

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/OSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/OSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR INDUSTRIAL HYGIENIST). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE CLOVES: WEAR RESISTANT CLOVES SUCH AS: NEOPRENE, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. CONSULT YOUR SAFETY REPRESENTATIVE.

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED SINCE EMPTY CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

SECTION X LABEL INFORMATION**WARNING!****COMBUSTIBLE LIQUID AND VAPOR****MAY CAUSE EYE AND SKIN IRRITATION.****INHALATION OF VAPOR MAY CAUSE IRRITATION OF NASAL AND RESPIRATORY PASSAGES.****SWALLOWING MAY CAUSE IRRITATION OF MOUTH, ESOPHAGUS, AND GASTROINTESTINAL SYSTEM AND MAY BE FATAL.****COMPONENT(S) MAY BE ABSORBED THROUGH SKIN IN TOXIC AMOUNTS.****HANDLING & STORAGE:**

MAINTAIN AMBIENT AIR CONCENTRATION(S) OF VOLATILE COMPONENT(S) BELOW PERMISSIBLE EXPOSURE LIMITS. WEAR SAFETY GLASSES OR GOGGLES, RESISTANT GLOVES, AND OTHER APPROPRIATE PROTECTIVE EQUIPMENT ESSENTIAL FOR YOUR OPERATION. DO NOT TRANSFER TO UNLABELED CONTAINER. USE OR STORE ONLY WITH ADEQUATE VENTILATION. DO NOT USE CUTTING OR WELDING TORCH ON THIS CONTAINER (EVEN EMPTY). KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. MINIMIZE EXPOSURE THROUGH GOOD HYGIENIC PRACTICES.

SKIN: IMMEDIATELY FLUSH WITH WATER. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION. WASH THOROUGHLY WITH SOAP AND WATER.

INHALATION: IF AFFECTED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSES OF WATER AND GET MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

CHRONIC INFORMATION:

CONTAINS: PETROLEUM DISTILLATES, ETHYLENE GLYCOL MONOPROPYLETHYER (EMPE) AND PROPYLENE GLYCOL MONOPROPYL ETHER (POMPE). CONTAINS MATERIAL(S) WHICH MAY CAUSE BLOOD ABNORMALITIES, CENTRAL NERVOUS SYSTEM DEPRESSION, RESPIRATORY SYSTEM, EYE, KIDNEY AND/OR LIVER DAMAGE.

*** COMPONENTS APPEAR IN SECTION XI ***

LAST PAGE--SEE ATTACHMENT PAGE ENCLOSED--LAST PAGE



PRODUCT INFORMATION

VALVOLINE INDUSTRIAL COATINGS • A DIVISION OF ASHLAND INC.



TECTYL® 511M, Class I

Description

TECTYL 511M, Class I is a solvent cutback, water displacing corrosion preventive compound. The semi-firm film is oily, light amber, and translucent. TECTYL 511M, Class I is approved under Military Specifications MIL-C-18173E, Grade 5, for Class I; MIL-C-23411A, Type II; and MIL-P-116J, Type P-21.

TECTYL 511M, Class I is designed to protect ferrous and non-ferrous industrial parts and transportation components during covered shipment and inside storage.

Laboratory Data

Typical Properties

| | <u>English</u> | <u>Metric</u> |
|---|------------------------|-------------------|
| Flash, PMCC*, Minimum | 106°F | 41.1°C |
| Density, Weight/Gallon @ 77°F (25°C) | 7.19 ± 0.1 lbs./gallon | 862 grams/L |
| Specific Gravity @ 60°F (15.6°C) | 0.84 | |
| Recommended Dry Film Thickness over Metal Profile | 0.3 mils | 7.5 microns |
| Theoretical Coverage @ Recommended DFT | 2,136 sq. ft./gallon | 52.5 sq. meters/L |
| Non-Volatile % by Weight | 46 ± 3 | |
| Non-Volatile % by Volume | 40 ± 3 | |
| Volatile Organic Content (VOC), Maximum | 4.1 lbs./gallon | 492 grams/L |
| Approximate Dry to Touch Time @ 77°F (25°C) | 1 hour | |
| Cure Time | 24 hours | |

Accelerated Corrosion Tests:

| | |
|--|-----|
| 5% Salt Spray (Hours) | 168 |
| ASTM B-117 @ Recommended DFT (2x4x1/8 in. Polished Steel Panels) | |
| 100% Relative Humidity (Hours) | 750 |
| ASTM D-1748 @ Recommended DFT (2x4x1/8 in. Polished Steel Panels) | |

*PMCC (Penske Martin Closed Cup)

**ASTM (American Society for Testing and Materials)

Surface Preparation

The maximum performance of TECTYL 511M, Class I can be achieved only when the metal surfaces to be protected are clean, dry and free of rust, oil and mill scale. Valvoline Industrial Coatings recommends that the metal substrate temperature be 50-85°F (10-35°C) at the time of product application.

Application

TECTYL 511M, Class I is formulated to be used as supplied. Ensure uniform consistency prior to use. Continued stirring is generally not required. If the product thickens due to cold storage or loss of solvent during use, contact Valvoline Industrial Coatings. DO NOT THIN TECTYL 511M, Class I. Incorrect thinning will affect film build, dry time and product performance. Valvoline Industrial Coatings recommends that the ambient and product temperature be 50 - 95° F (10 - 35°C) at time of application. TECTYL 511M, Class I can be spray dip or flush applied. DO NOT FREEZE TECTYL 511M, Class I.

Removal

TECTYL 511M, Class I can be removed with TECTYL HPS solventborne thinner, vapor degreasing, hot alkaline wash, or low pressure steam. TECTYL 511M, Class I can be removed from fabrics by normal dry cleaning procedures. Avoid the use of chlorinated or highly aromatic solvents when removing from painted surfaces, as these solvents may adversely affect paint.

Storage

Store TECTYL 511M, Class I at temperatures between 50-95°F (10-35°C). Mild agitation is recommended prior to use.

Caution

Adequate ventilation is required for cure and to ensure against formation of a combustible liquid. THE PARTIALLY CURED FILM SHOULD NOT BE EXPOSED TO IGNITION SOURCES SUCH AS FLARES, FLAMES, SPARKS, EXCESSIVE HEAT, OR TORCHES. Refer to Ashland Inc.'s Material Safety Data Sheet for additional handling and first aid information.

Note:

The addition of any product over or under this coating is not recommended. The use of additional coatings could result in chemical incompatibility, thus adversely affecting the performance of this coating as stated in the lab data section. If a primer other than Valvoline Industrial Coatings' recommended product is required, written authorization must be obtained from Valvoline Industrial Coatings, P.O. Box 14000, Lexington, KY, 40512 (800-231-6022).

VIC 1/88 (Supersedes all previous printings)

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material. Freedom to use any patent owned by Ashland or others is not to be inferred from any statement contained herein.



5555 N. Chinook Ave. P.O. Box 4367 Portland, Oregon 97208
Phone (503) 255 1111 Fax # (503) 735 9818

Support Services Department

Quality Assurance, Safety, Worker's Comp., Facilities, and Environmental Compliance

DATE: 5/2/96

TO: Oil Refining

ATTENTION Dave Keck

FAX NUMBER 286-5027 # PAGES (including cover) 4

FROM Chris Tompkins PH. 978-0408

NOTES

Here are the final 3 pages for the
TECTYL 511 m

Thank you

cks

Please call the person noted above if transmittal is not successful.

Ex. 106

report number: 1823 report date: 8 May 96

Certificate of Analysis by Service Analytical Lab

4150 North Suttle Road, Portland, Oregon 97217

(503) ph 289-3487 fax 289-4013

Customer: Cascade General, Inc.

purchase order number: 6525

Project: waste characterization. Vessel USNS Higgins.

Customer's sample ID: TECTYL 511M, 5-2-96

SAL's sample ID: 1823-1

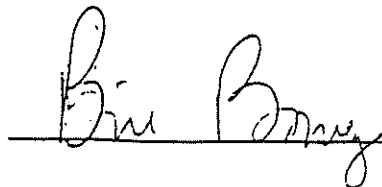
| ANALYSIS | RESULT ¹ | QUANTITATION LIMIT ² | METHOD ³ | ANALYZED |
|---------------------------|---------------------|------------------------------------|---------------------|----------|
| TCLP /Lead | nd | 1 ppm | EPA 1311/7421 | 5-7-96 |
| TCLP /Cadmium | nd | 0.5 ppm | EPA 1311/7131 | 5-7-96 |
| TCLP /Chromium | 1.2 ppm | 1 ppm | EPA 1311/7191 | 5-7-96 |
| TCLP /Arsenic | nd | 1 ppm | EPA 1311/7060 | 5-7-96 |
| TCLP /Barium | nd | 1 ppm | EPA 1311/7081 | 5-7-96 |
| TCLP /Silver | nd | 0.5 ppm | EPA 1311/7761 | 5-7-96 |
| TCLP /Mercury | nd | 0.05 ppm | EPA 1311/7470 | 5-7-96 |
| TCLP /Selenium | nd | 1 ppm | EPA 1311/7740 | 5-7-96 |
| Closed Cup Flash Point: @ | 90°F | ±5°F | EPA 1010 | 5-7-96 |

¹ nd means none detected. Parts per million (ppm) = milligrams/liter (mg/L) for aqueous samples = milligrams/kilogram (mg/kg) for non-aqueous samples.
Parts per billion (ppb) = micrograms/liter (µg/L) for aqueous samples = micrograms/kilogram (µg/kg) for non-aqueous samples.

² Results greater than or equal to the [Practical] Quantitation Limits are identified and quantified.

³ EPA citation: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Final Update."

Reviewed by



Bill Bowey, Technical Director

EX. 107

report number: 1823 report date: 8 May 96

Certificate of Analysis by Service Analytical Lab
4150 North Suttle Road, Portland, Oregon 97217
(503) ph 289-3487 fax 289-4013

Customer: Cascade General, Inc.

purchase order number: 6525

Project: waste characterization. Vessel USNS Higgins.

Customer's sample ID: TECTYL 502C, 5-2-96

SAL's sample ID: 1823-2

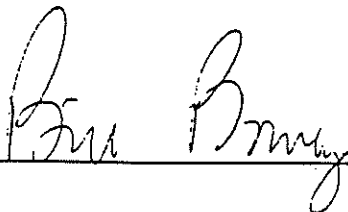
| ANALYSIS | RESULT ¹ | QUANTITATION LIMIT ² | METHOD ³ | ANALYZED |
|---------------------------|---------------------|------------------------------------|---------------------|----------|
| TCLP /Lead | 1.1 ppm | 1 ppm | EPA 1311/7421 | 5-7-96 |
| TCLP /Cadmium | nd | 0.5 ppm | EPA 1311/7131 | 5-7-96 |
| TCLP /Chromium | 3.7 ppm | 1 ppm | EPA 1311/7191 | 5-7-96 |
| TCLP /Arsenic | nd | 1 ppm | EPA 1311/7060 | 5-7-96 |
| TCLP /Barium | 9.2 ppm | 1 ppm | EPA 1311/7081 | 5-7-96 |
| TCLP /Silver | nd | 0.5 ppm | EPA 1311/7761 | 5-7-96 |
| TCLP /Mercury | nd | 0.05 ppm | EPA 1311/7470 | 5-7-96 |
| TCLP /Selenium | nd | 1 ppm | EPA 1311/7740 | 5-7-96 |
| Closed Cup Flash Point: @ | 85°F | ±5°F | EPA 1010 | 5-7-96 |

¹ nd means none detected. Parts per million (ppm) = milligrams/liter (mg/L) for aqueous samples = milligrams/kilogram (mg/kg) for non-aqueous samples.
Parts per billion (ppb) = micrograms/liter (µg/L) for aqueous samples = micrograms/kilogram (µg/kg) for non-aqueous samples.

² Results greater than or equal to the [Practical] Quantitation Limits are identified and quantified.

³ EPA citation: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Final Update."

Reviewed by



Bill Bowey, Technical Director

Ex. 108

Generator Name: Cascade General Phone: _____

Address: 5555 N Channel Portland OR Fax: _____

Generating Facility Address if different: _____

Environmental Compliance Manager: Chris Tompkins EPA#: _____

Description of Waste/Material: used oil Does Waste/Material Vary? Yes No

If yes describe: Type of Process: _____ Change in Concentration of Constituents: _____

Other important information: sent analyzed to Dave Keck

Hazardous Waste Characteristics?
Flash < 140°F: Yes No Test method: _____ Personal Knowledge of Generator: Yes No
Corrosive: Yes No Test method: _____ Personal Knowledge of Generator: Yes No
Reactive: Yes No Test method: _____ Personal Knowledge of Generator: Yes No
Toxic: Yes No Test method: _____ Personal Knowledge of Generator: Yes No

Has Waste/Material been mixed with Hazardous Waste?: Yes No RCRA Waste#: _____

If Yes, What Kind? _____ **IMPORTANT!!! Identify ALL characteristics**

Flash Point < 140°F: Yes No Corrosive: Yes No Reactive: Yes No Toxic: Yes No

Does Waste/Material contain > 2PPM PCBs?: Yes No If Yes what is the concentration of PCBs? _____ PPM

PCB test method: _____ Personal Knowledge of Generator: Yes No

BTU content: _____ Test method: _____
Water content: _____ %, Test method: _____
MSDS available?: Yes No **IMPORTANT!!! ATTACH COPIES OF MSDS**

Is Sample Been Taken? Yes No Test Results: _____

Has Waste/Material been Previously Rejected?: Yes No If Yes, Explain: _____

Has Generator Signed Certification?: Yes No Other Relevant Information: _____

IMPORTANT!!! Attach all Test Results, MSDS Sheets, or any other Relevant Documents.

Date of Completion of Waste/Materials Profile: 5-30-96 update: _____ update: _____

Name of Person(s) Providing Profile Information: CHRIS TOMPKINS

Title of Person(s) Providing Profile Information: HAZARDOUS MATERIAL Supt.

Certification by Generator:
I hereby certify that to the best of my knowledge, all of the information provided in this document is accurate and complete. I further certify that if any information set forth in this document changes during the period of time that Fuel Processors Inc. collects Wastes or Materials from this facility, I will promptly notify Fuel Processors of the change.

Signed: Chris Tompkins Date: 5-30-96 Title: EX. 109

Certification by Broker/Service Provider or Independent Laboratory or Consultant:
I hereby certify that to the best of my knowledge all the information provided in this document is accurate and complete.

Signed: Bob Mullins Date: 5-30-96 Title: _____

Is Waste/Material Acceptable for Processing?: Yes No Explanation: _____

Name of Fuel Processors, Inc. Official(s) Authorizing Acceptance or Rejection: _____

Signed: Mat Gibson Date: _____ Title: P.O.

Contractor/Broker Name: _____ Phone: _____

Load Accepted Rejected Disposition?: _____
If Rejected Reason for Refusal: _____

1. G. Generator
2. Waste/Material Characteristics
3. Certification

JAN 9 1996

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

CERTIFIED MAIL Z 076 234 152

Cascade General, Inc.
c/o Jonathan A. Ater,
Registered Agent
222 S.W. Columbia
Suite 1800
Portland, OR 97201

Re: Notice of Assessment of
Civil Penalty
No. AQP-NWR-95-327
Multnomah County

On November 23, 1993, Cascade General, Inc. (Cascade) was issued Air Contaminant Discharge Permit No. 26-3101 (Permit). The Permit authorized Cascade to discharge exhaust gases containing air contaminants only in accordance with the conditions of the Permit.

On September 7, 1995, the Department issued Cascade a Notice of Noncompliance for exceeding the daily weighted average Volatile Organic Compound (VOC) limitation of 3.5 pounds of VOC per gallon of coating applied, excluding water, on 37 days in 1994, in violation of Condition 2 of the Permit. Cascade was warned this was a serious violation and may be subject to formal enforcement action, including a civil penalty assessment.

On November 28, 1995, the Department issued Cascade a second Notice of Noncompliance for exceeding the VOC daily plant site emission limit of 399 pounds, by emitting 686 pounds of VOC on October 31, 1995, and 626 pounds of VOC on November 1, 1995, in violation of Condition 7 of the Permit. The November 28, 1995 Notice of Noncompliance informed Cascade that the matter was being referred to the Department's Enforcement Section for formal enforcement action. Both violations referenced above are Class II violations which are considered significant violations of the air quality regulations.

Ex. 111



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1



Cascade General, Inc.
Case No. AQP-NWR-95-327
Page 2

Cascade is liable for a civil penalty assessment. In the enclosed Notice, I have assessed a civil penalty of \$1,400 for violating the daily plant site emissions limits on October 31, 1995 and November 1, 1995. In determining the amount of the penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibit 1.

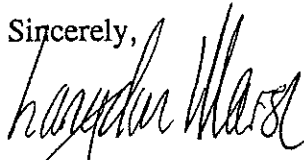
Appeal procedures are outlined in Section V of the Notice. If Cascade fails to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered.

If Cascade wishes to discuss this matter or believes there are mitigating factors which the Department might not have considered in assessing the civil penalty, Cascade may request an informal discussion by attaching a request to the appeal. A request to discuss this matter with the Department will not waive the right to a contested case hearing.

I look forward to Cascade's cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, Cascade may be assessed additional civil penalties.

Copies of referenced rules are enclosed. For further questions about this action please contact Nancy Couch with the Department's Enforcement Section in Portland at 229-6610.

Sincerely,



Langdon Marsh
Director

nc:b

U:\ENF\CPNOTICE\CASCADGL

Enclosures

cc: Northwest Region, DEQ
Air Quality Division, DEQ
Department of Justice
Environmental Protection Agency
Environmental Quality Commission
Multnomah County District Attorney

1 IV. ASSESSMENT OF CIVIL PENALTY

2 The Director imposes a \$1,400 civil penalty for violation number 1 cited in Section II
3 above.

4 The findings and determination of Respondent's civil penalty pursuant to OAR 340-12-
5 045 are attached and incorporated as Exhibit No. 1.

6 V. OPPORTUNITY FOR CONTESTED CASE HEARING

7 Respondent has the right to have a formal contested case hearing before the
8 Environmental Quality Commission (Commission) or its hearings officer regarding the matters
9 set out above, at which time Respondent may be represented by an attorney and subpoena and
10 cross-examine witnesses. **The request for hearing must be made in writing, must be received**
11 **by the Department's Rules Coordinator within twenty (20) days from the date of service of**
12 **this Notice, and must be accompanied by a written "Answer" to the charges contained in**
13 **this Notice.**

14 In the written Answer, Respondent shall admit or deny each allegation of fact contained
15 in this Notice, and shall affirmatively allege any and all affirmative claims or defenses to the
16 assessment of this civil penalty that Respondent may have and the reasoning in support thereof.
17 Except for good cause shown:

- 18 1. Factual matters not controverted shall be presumed admitted;
19 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or
20 defense;
21 3. New matters alleged in the Answer shall be presumed to be denied unless admitted in
22 subsequent pleading or stipulation by the Department or Commission.

23 Send the request for hearing and Answer to: **DEQ Rules Coordinator, Management**
24 **Services Division, 811 S.W. Sixth Avenue, Portland, Oregon 97204.** Following receipt of a
25 request for hearing and an Answer, Respondent will be notified of the date, time and place of
26 the hearing.

1 Failure to file a timely request for hearing and Answer may result in the entry of a
2 Default Order for the relief sought in this Notice.

3 Failure to appear at a scheduled hearing or meet a required deadline may result in a
4 dismissal of the request for hearing and also an entry of a Default Order.

5 The Department's case file at the time the Notice was issued may serve as the record for
6 purposes of entering the Default Order.

7 VI. OPPORTUNITY FOR INFORMAL DISCUSSION

8 In addition to filing a request for a contested case hearing, Respondent may also request
9 an informal discussion with the Department by attaching a written request to the hearing request
10 and Answer.

11 VII. PAYMENT OF CIVIL PENALTY

12 The civil penalty is due and payable ten (10) days after the Order imposing the civil
13 penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before
14 that time. Respondent's check or money order in the amount of \$1,400 should be made payable
15 to "State Treasurer, State of Oregon" and sent to the Business Office, Department of
16 Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.

17 JAN 9 1996

18 Date

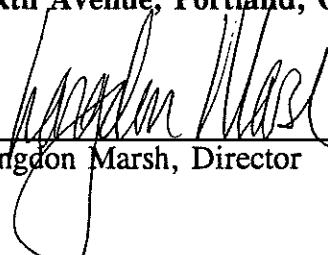
19 
20 Langdon Marsh, Director

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 1: Exceeded the Volatile Organic Compound (VOC) daily plant site emissions limit.

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-12-050(2)(a).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a)(ii).

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$1,000 for a Class II, moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(b).

"P" is Respondent's prior significant action(s) and receives a value of 0 because Respondent has no prior significant actions pursuant to OAR 340-12-030(14).

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant action(s) and receives a value of 0 because Respondent has no prior significant actions.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 2 because the violation occurred on more than one day.

"R" is the cause of the violation and receives a value of 2 because Respondent was negligent in causing the violation. Negligence is defined in OAR 340-12-030(11) as the failure to take reasonable care to avoid a foreseeable risk of committing an act or omission constituting a violation. As a permittee, Respondent knew or should have known of the emission limitations set forth in the Permit. In previous meetings with the Department, Respondent expressed its intent to comply with Condition 7 of the Permit. Respondent has previously been issued a Notice of Noncompliance on September 7, 1995, for violating a similar emission limitation. Therefore, Respondent was negligent by failing to take reasonable care to avoid a foreseeable risk of causing a violation by repeatedly exceeding emission limitations specifically set forth in the Permit.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation or the effects of the violation could not be corrected within the scope of the violation.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there is insufficient information on which to base a finding.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$1,000 + [(0.1 \times \$1,000) \times (0 + 0 + 2 + 2 + 0)] + \$0 \\ &= \$1,000 + [(\$100) \times (4)] + \$0 \\ &= \$1,000 + \$400 + \$0 \\ &= \$1,400 \end{aligned}$$

Nancy

DEPARTMENT OF ENVIRONMENTAL QUALITY
TRANSMITTAL ADVICE
CIVIL PENALTIES

| CHECK # | AMOUNT | FOR THE ACCOUNT OF (CHECK NAME) | CASE # | DOR FEE | BAL DUE |
|---------|------------------|---------------------------------------|----------------|---------|---------|
| → 6768 | 1,400.00 | Cascade General | AQP-NWR-95-327 | 0.00 | 0.00 |
| 167548 | 25,000.00 | Tillamook County Creamery Association | AQP-NWR-94-166 | 0.00 | 0.00 |
| | <u>26,400.00</u> | CIVIL PENALTY TOTAL | | | |

Asterisk indicates check covers more than one penalty.

012 d. c

Oregon

June 18, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

CERTIFIED MAIL P 494 534 415

Cascade General, Inc.
Jonathan A. Ater, Registered Agent
Ater, Wynne, Hewitt, Dodson & Skeritt
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618

Re: **Notice of Assessment of
Civil Penalty**
No. HW-NWR-97-111
**Notice of Assessment of
Civil Penalty**
No. WQIW-NWR-97-112A
Notice of Permit Violation
No. WQIW-NWR-97-112B
Multnomah County

Cascade General, Inc.(Cascade General) operates a Ship Repair Yard facility (Facility) located at 5555 N. Channel Avenue, in Portland, Oregon. Cascade General holds a National Pollutant Discharge Elimination System (NPDES) waste discharge permit and is a generator of hazardous waste. On April 18 and 21, 1997, a representative of the Department of Environmental Quality (Department or DEQ), Rebecca Paul, inspected the Facility to determine Cascade General's compliance with Oregon law and DEQ's hazardous waste management regulations.

The Department documented several violations at Cascade General's Facility. These violations included both water quality and hazardous waste violations. The water quality violations included unauthorized discharges into the waters of the state and violations of environmental Best Management Practices (BMPs) required by Cascade General's NPDES permit. The hazardous waste violations include failure to properly date and label containers of hazardous waste, failure to maintain personnel training documents, and failure to describe emergency response arrangements in Cascade General's contingency plan, as required of a large quantity generator. These violations are set forth in more detail below.

On May 1, 1997, the Department issued a Notice of Noncompliance (NON) to notify Cascade General of its violations. In the NON the Department also requested that Cascade General correct its violations and informed Cascade General that the inspection report would be forwarded to DEQ's Statewide Enforcement Section for consideration of possible civil penalties.

Ex. 112



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1



By letters dated April 19, 1997 and May 14, 1997, Cascade General's Environmental Manager, Bob Coates responded to the Department's inspection and the NON. In the April 19 letter, Mr. Coates acknowledged that Cascade General had illegally discharged approximately 200 gallons of wastewater into waters of the state. In the letter dated May 14, Mr. Coates pointed out what he believed to be factual discrepancies in the NON and also expressed a commitment to bring Cascade General into full compliance by indicating those violations that had been corrected and setting forth the timetable by which Cascade General would meet the deadlines for further compliance set by the NON.

Because of Cascade General's documented violations, I have enclosed two Notices of Assessment of Civil Penalty (NACP), and a Notice of Permit Violation (NPV). In Case No. WQIW-NWR-97-112A, I have assessed a civil penalty of \$3,600. In Case No HW-NWR-97-111, I have assessed civil penalties totaling \$4,200. The total civil penalty for the two cases is \$7,800. A summary of the civil penalties assessed for each type of violation follows.

Notice of Assessment of Civil Penalty
No. HW-NWR-97-111

In the enclosed NACP (HW-NWR-97-111), I have assessed civil penalties totaling \$4,200. During the two inspections of Cascade General's facility on April 18 and 21, 1997, the Department documented several hazardous waste management violations. I have assessed a penalty of \$1,200 for Cascade General's failure to date a drum in the waste storage area with an accumulation date. This is a Class I violation.

Some of the hazardous waste violations documented at Cascade General's facility during the April 1997 inspections are similar to violations documented at the facility in December 1992. At that time, Cascade General was warned that civil penalties would likely be assessed if any similar violations occurred in the future. The Department considers repeat violations to be serious violations of environmental law. Therefore, I have assessed a civil penalty against Cascade General for each of its repeated violations as follows: I assessed a \$600 civil penalty for failing to mark a container of hazardous waste with the words "hazardous waste," a \$1,200 civil penalty for failure to keep documents on the type and amount of introductory and continuing training given to, and completed by, facility personnel, and a \$1,200 civil penalty for failing to include a description of emergency response arrangements made with local authorities and emergency responders in Cascade General's contingency plan.

In determining the amount of each penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determinations are attached to the NACP as Exhibits 1 through 4.

Notice of Assessment of Civil Penalty
No. WQIW-NWR-97-112A

In the enclosed NACP (WQIW-NWR-97-112A), I have assessed a civil penalty of \$3,600 for discharging wastewater into waters of the state without a permit authorizing such discharge.

While inspecting Dry Dock #4 of the Facility, Ms. Paul witnessed a hose laying on the dry dock apron with one end hanging over the edge of the dry dock. Mr. Coates later acknowledged that Cascade General had illegally discharged approximately 200 gallons of wastewater into waters of the state from this hose. ORS 468B.050(1)(a) prohibits discharging of wastes into waters of the state without a NPDES permit. Cascade General's NPDES Permit does not allow a discharge of waste or process material from a hose on the dry dock. In determining the amount of the penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the NACP as Exhibit 1.

Summary of Civil Penalties:

Because Cascade General violated Oregon environmental law, Cascade General is liable for civil penalty assessments. In the enclosed NACPs (HW-NWR-97-111 and WQIW-NWR-97-112A), I have assessed a total of \$7,800 in civil penalties.

Appeal procedures are outlined in each of the enclosed NACPs. If Cascade General fails to either pay or appeal any penalty within twenty (20) days, a Default Order will be entered against Cascade General. If Cascade General wishes to discuss this matter, or if Cascade General believes there are mitigating factors which the Department might not have considered in assessing the civil penalty, Cascade General may request an informal discussion by attaching a request to the appeal. A request to discuss this matter with the Department will not waive any right to a contested case hearing.

Notice of Permit Violation

No. WQIW-NWR-97-112B

In addition to the NACPs, I am also sending Cascade General the enclosed NPV which requires Cascade General to address specific deficiencies in its application of Environmental Best Management Practices that have resulted in violations of the terms and conditions of Cascade General's Permit, and respond in writing to the Department within 5 days of receipt of the NPV.

As a result of the above referenced inspections, the Department has documented that Cascade General violated Schedule D, Condition 2 of Cascade General's Permit by failing to ensure that all applicable Environmental Best Management Practices (BMPs) are employed at all times. Specifically, Cascade General did not explain BMP procedures, responsibilities, and accountability to all employees, did not adequately educate all employees about illegal dumping in the shipyard, did not adequately manage the use and storage of abrasive blast grit so as to prevent material from entering surface water, failed to prevent abrasive blast grit material from contacting surface waters by placing floating containment booms around the vessel and the grit containment barge in a manner to effectively entrap any accidental surface contaminants, and did not prevent residues from high pressure wash water, hydroblasting, or surry blasting from discharging to surface waters by properly handling liquids collected in accordance with the appropriate environmental regulations. Violations of NPDES permit conditions are prohibited by Oregon Revised Statute 468B.025(2).

Cascade General's violations of BMPs and its NPDES permit obligations are viewed seriously by the Department. The Department relies on permittees to adequately train and educate all of its employees as to the applicable environmental regulations and procedures. Cascade General should specifically address employee training for its new personnel. Under Cascade General's current implementation of its BMPs, new employees are allowed for two weeks to work at jobs for which they may not be adequately trained. Having trained supervisors is not enough to meet the BMP condition that all employees be properly trained. When a permittee fails to follow permit conditions such as the BMPs, public health and the environment are at a greater risk of harm.

The enclosed NPV requires Cascade General to submit one of the following to the Department **within five (5) working days after receipt of the NPV:**

1. A written response, signed by the president, secretary, treasurer, or vice-president, or person charged with signing/certifying corporate documents, from the Permittee certifying that the permitted facility is complying with all terms and conditions of the Permit. The certification shall include a sufficient description of the information on which the Permittee is certifying compliance so as to enable the Department to determine that compliance has been achieved; OR
2. A written proposal to bring the facility into compliance with the Permit which shall include at least the following:
 - a. A detailed plan and time schedule for achieving compliance in the shortest practicable time; and
 - b. A description of the interim steps that will be taken to reduce the impact of the Permit violation(s) until the permitted facility is in compliance with the Permit; and
 - c. A statement that the Permittee has reviewed all other conditions and limitations of the Permit and no other violations of the Permit were discovered.

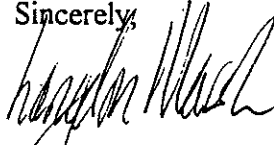
If Cascade General fails to appropriately respond to the NPV within five (5) days of receipt of the NPV, Cascade General will be subject to an additional civil penalty for the violations cited in Section III of the NPV. A copy of our enforcement procedures is enclosed. All submittals required by this NPV should be sent to Larry Schurr of the Department's Enforcement Section at 2020 S.W. Fourth Avenue, Portland, Oregon 97204.

We appreciate Cascade General's cooperation and efforts to correct its violations, and look forward to Cascade General's cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, additional civil penalties may be assessed.

Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects

(SEPs). If you have any questions about this action, please contact Larry Schurr with the Department's Enforcement Section in Portland at 229-6932.

Sincerely,



Langdon Marsh
Director

E:/CASCADE/COVER 5/27/97)

Enclosures

cc: Northwest Region, DEQ
Waste Management and Cleanup Division, DEQ
Water Quality Division, DEQ
Department of Justice
Environmental Protection Agency
Environmental Quality Commission
Multnomah County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:
CASCADE GENERAL, INC.,
an Oregon Corporation,

Respondent.

)
)
)
)
)
NOTICE OF ASSESSMENT
OF CIVIL PENALTY
No. HW-NWR-97-111
MULTNOMAH COUNTY

ORD 180761934

I. AUTHORITY

This Notice of Assessment of Civil Penalty (Notice) is issued by the Department of Environmental Quality (Department) pursuant to Oregon Revised Statutes (ORS) 468.126 through 468.140, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 11 and 12.

II. FINDINGS

1. Respondent, Cascade General, Inc., an Oregon Corporation, operates under contract with the Port of Portland, a ship repair yard facility located on Swan Island at 5555 N. Channel Avenue, Portland, Oregon.

2. Respondent is a large private company with a dedicated environmental staff and generates the following hazardous wastes: spent paint thinner, paint waste, aerosol spray cans, fluorescent light tubes, and sandblast grit.

3. Respondent is a large quantity generator of hazardous waste and has been assigned EPA identification # ORD 180761934.

4. Representatives of the Department conducted a compliance inspection at Respondent's facility on April 18, 1997, and revisited the facility on April 21, 1997.

III. VIOLATIONS

Based on the above noted inspection, Respondent has violated the following provisions of Oregon's hazardous waste laws and regulations applicable to the facility as set forth in ORS Chapter 466; OAR Chapter 340, Divisions 100 to 110 and 120 including regulations incorporated in OAR 340-100-002 adopted pursuant to ORS Chapter 466:

1 CLASS I VIOLATION:

2 1. On or about April 18, 1997, Respondent violated 40 CFR 262.34(a)(2), and OAR 340-
3 102-034(2) by failing to clearly mark a container of hazardous waste with the date that accumulation
4 into the container began. Specifically, Respondent failed to label a drum of waste paint (D001) in the
5 waste storage area with the accumulation start date. This is a Class I violation pursuant to OAR 340-
6 12-068(1)(x).

7 CLASS II VIOLATIONS:

8 2. On or about April 18, 1997, Respondent violated 40 CFR 262.34(a)(3), and OAR 340-
9 102-034(2) by failing to mark containers of waste with the words "Hazardous Waste." Specifically,
10 Respondent failed to mark eight drums of waste paint (D001) in a consolidation area with the words
11 "Hazardous Waste." This is a Class II violation pursuant to OAR-340-12-068(2).

12 3. On or about April 18, 1997, Respondent violated 40 CFR 262.34(a)(4), OAR 340-
13 102-034(2), and the personnel training requirements set forth in 40 CFR 265.16(d)(2)-(4) by failing to
14 maintain documents and records at the facility regarding employee training. Specifically, Respondent
15 failed to keep and maintain documents on the type and amount of introductory and continuing training
16 given to, and completed by, facility personnel. Further, Respondent could not provide written job
17 descriptions for each of the positions related to waste management. This is a Class II violation
18 pursuant to OAR 340-12-068(2).

19 4. On or about April 18, 1997, Respondent violated 40 CFR 262.34(a)(4), and OAR 340-
20 102-034(2), and the Contingency Plan and Emergency Procedures requirements set forth in 40 CFR
21 265.52(c) by failing to include in Respondent's contingency plan a description of arrangements agreed
22 to by local police departments, fire departments, hospitals, contractors, and local emergency response
23 teams. Specifically, Respondent failed to document emergency response arrangements with local
24 authorities and emergency responders in its contingency plan. The violation is a Class II violation
25 pursuant to OAR 340-12-068(2).

26 ///

27 ///

1 IV. COMPLIANCE ORDER

2 Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby
3 ORDERED to **immediately initiate action** to correct any continuing violation and come into full
4 compliance with applicable hazardous waste management regulations.

5 V. ASSESSMENT OF CIVIL PENALTIES

6 The Director imposes civil penalties for the violations cited in Section III as follows:

| <u>Violation</u> | <u>Penalty Amount</u> |
|------------------|-----------------------|
| 1 | \$ 1,200 |
| 2 | \$ 600 |
| 3 | \$ 1,200 |
| 4 | \$ 1,200 |

12
13 Respondent's total civil penalty for HW-NWR-97-111 is \$ 4,200.

14 The findings and determination of the amounts of Respondent's civil penalties, pursuant to
15 OAR 340-12-045, are attached and incorporated as Exhibits 1 through 4.

16 VI. OPPORTUNITY FOR CONTESTED CASE HEARING

17 Respondent has the right to have a formal contested case hearing before the Environmental
18 Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which
19 time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. **The
20 request for hearing must be made in writing, must be received by the Department's Rules
21 Coordinator within twenty (20) days from the date of service of this Notice, and must be
22 accompanied by a written "Answer" to the charges contained in this Notice.**

23 In the written Answer, Respondent shall admit or deny each allegation of fact contained in this
24 Notice, and shall affirmatively allege any and all affirmative claims or defenses to the assessment of this
25 civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause
26 shown:

- 27 1. Factual matters not controverted shall be presumed admitted;

EXHIBIT 1 to HW-NWR-97-111

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 1: Failure to clearly mark a container of hazardous waste with the date that accumulation into the container began.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-068(1)(x).

MAGNITUDE: The magnitude of the violation is minor pursuant to 340-12-090(3)(d)(iii) because the violation involved less than 500 gallons of hazardous waste.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$1000 for a Class I minor magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant action(s) and receives a value of 1 as Respondent has a prior violation as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -1 because Respondent took all feasible steps to correct the prior violation. Pursuant to 340-12-045 (1)(B)(i) taking all feasible steps to correct a violation normally results in a value of -2. However, pursuant to 340-12-045(1)(B) if the combination of "P" and "H" is a negative numeral, the finding for the combination of the two factors shall be zero. For this reason the "H" factor is assigned a value of -1.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of +2 because the violation was repeated.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent was previously cited for a similar violation and therefore knew or should have known to take reasonable care to avoid a foreseeable risk of committing the violation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of -2 because Respondent was cooperative and took reasonable efforts to correct the violation.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there was no economic benefit.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$1,000 + [(0.1 \times \$1,000) \times (1 - 1 + 2 + 2 - 2)] + \$0 \\ &= \$1,000 + [(\$100) \times (2)] + \$0 \\ &= \$1,000 + \$200 + \$0 \\ &= \$1,200 \end{aligned}$$

EXHIBIT 2 to HW-NWR-97-111

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 2: Failure to clearly mark container of hazardous waste with words "Hazardous Waste."

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-12-068(2).

MAGNITUDE: The magnitude of the violation is minor pursuant to 340-12-090(3)(d)(iii) because the violation involved less than 500 gallons of hazardous waste.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$500 for a Class II minor magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant action(s) and receives a value of 1 as Respondent has a prior violation as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -1 because Respondent took all feasible steps to correct the prior violation. Pursuant to 340-12-045 (1)(B)(i) taking all feasible steps to correct a violation normally results in a value of -2. However, pursuant to 340-12-045(1)(B) if the combination of "P" and "H" is a negative numeral, the finding for the combination of the two factors shall be zero. For this reason the "H" factor is assigned a value of -1.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of +2 because the violation was repeated.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent was previously cited for a similar violation and therefore knew or should have known to take reasonable care to avoid a foreseeable risk of committing the violation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of -2 because Respondent was cooperative and took reasonable efforts to correct the violation.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there was no economic benefit.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$500 + [(0.1 \times \$500) \times (1 - 1 + 2 + 2 - 2)] + \$0 \\ &= \$500 + [(\$50) \times (2)] + \$0 \\ &= \$500 + \$100 + \$0 \\ &= \$600 \end{aligned}$$

EXHIBIT 3 to HW-NWR-97-111

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 3: Failure to document the type and amount of introductory and continuing training given to, and completed by, facility personnel.

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-12-068(2).

MAGNITUDE: Absent a selected magnitude and other finding, the magnitude of the violation is moderate pursuant to 340-12-045(1)(a)(ii).

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$1,000 for a Class II moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(e).

"P" is Respondent's prior significant action(s) and receives a value of 1 as Respondent has a prior violation as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -1 because Respondent took all feasible steps to correct the prior violation. Pursuant to 340-12-045 (1)(B)(i) taking all feasible steps to correct a violation normally results in a value of -2. However, pursuant to 340-12-045(1)(B) if the combination of "P" and "H" is a negative numeral, the finding for the combination of the two factors shall be zero. For this reason the "H" factor is assigned a value of -1.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of +2 because the violation was repeated.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent was previously cited for a similar violation and therefore knew or should have known to take reasonable care to avoid a foreseeable risk of committing the violation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of -2 because Respondent was cooperative and took reasonable efforts to correct the violation.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 in that there is insufficient information of which to base a finding.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$1,000 + [(0.1 \times \$1,000) \times (1 - 1 + 2 + 2 - 2)] + \$0 \\ &= \$1,000 + [(\$100) \times (2)] + \$0 \\ &= \$1,000 + \$200 + \$0 \\ &= \$1,200 \end{aligned}$$

EXHIBIT 4 to HW-NWR-97-111

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION 4: Failure to describe emergency response arrangements made with local authorities and emergency responders in Respondent's contingency plan.

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-12-068(2).

MAGNITUDE: Absent a selected magnitude and other finding, the magnitude of the violation is moderate pursuant to 340-12-045(1)(a)(ii).

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$1,000 for a Class II moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(e).

"P" is Respondent's prior significant action(s) and receives a value of 1 as Respondent has a prior violation as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -1 because Respondent took all feasible steps to correct the prior violation. Pursuant to 340-12-045 (1)(B)(i) taking all feasible steps to correct a violation normally results in a value of -2. However, pursuant to 340-12-045(1)(B) if the combination of "P" and "H" is a negative numeral, the finding for the combination of the two factors shall be zero. For this reason the "H" factor is assigned a value of -1.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of +2 because the violation was repeated.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent was previously cited for a similar violation and therefore knew or should have known to take reasonable care to avoid a foreseeable risk of committing the violation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of -2 because Respondent was cooperative and took reasonable efforts to correct the violation.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 in that there is insufficient information of which to base a finding.

2009

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$1,000 + [(0.1 \times \$1,000) \times (1 - 1 + 2 + 2 - 2)] + \$0 \\ &= \$1,000 + [(\$100) \times (2)] + \$0 \\ &= \$1,000 + \$200 + \$0 \\ &= \$1,200 \end{aligned}$$

1 IV. OPPORTUNITY FOR CONTESTED CASE HEARING

2 Respondent has the right to have a formal contested case hearing before the Environmental
3 Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which
4 time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. **The**
5 **request for hearing must be made in writing, must be received by the Department's Rules**
6 **Coordinator within twenty (20) days from the date of service of this Notice, and must be**
7 **accompanied by a written "Answer" to the charges contained in this Notice.**

8 In the written Answer, Respondent shall admit or deny each allegation of fact contained in this
9 Notice, and shall affirmatively allege any and all affirmative claims or defenses to the assessment of this
10 civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause
11 shown:

- 12 1. Factual matters not controverted shall be presumed admitted;
13 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or
14 defense;
15 3. New matters alleged in the Answer shall be presumed to be denied unless admitted in
16 subsequent pleading or stipulation by the Department or Commission.

17 Send the request for hearing and Answer to: **DEQ Rules Coordinator, Office of the**
18 **Director, 811 S.W. Sixth Avenue, Portland, Oregon 97204.** Following receipt of a request for
19 hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

20 Failure to file a timely request for hearing and Answer may result in the entry of a Default
21 Order for the relief sought in this Notice.

22 Failure to appear at a scheduled hearing or meet a required deadline may result in a dismissal of
23 the request for hearing and also an entry of a Default Order.

24 The Department's case file at the time this Notice was issued may serve as the record for
25 purposes of entering the Default Order.

26 ///

27 ///

1 V. OPPORTUNITY FOR INFORMAL DISCUSSION

2 In addition to filing a request for a contested case hearing, Respondent may also request an
3 informal discussion with the Department by attaching a written request to the hearing request and
4 Answer.

5 VI. PAYMENT OF CIVIL PENALTY

6 The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty
7 becomes final by operation of law or on appeal. Respondent may pay the penalty before that time.
8 Respondent's check or money order in the amount of \$3,600 should be made payable to "State
9 Treasurer, State of Oregon" and sent to the **Business Office, Department of Environmental
10 Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

11
12
13 Date

6.16.97

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Langdon Marsh, Director

EXHIBIT 1 to WQIW-NWR-97-112A

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

VIOLATION NO. 1: Discharging wastes into waters of the state without a permit authorizing such discharge.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-055(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a)(ii). In the absence of a selected magnitude, the magnitude is determined to be moderate.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is \$3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant action(s) and receives a value of 1 as Respondent has a prior violation as follows:

Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -1 because Respondent took all feasible steps to correct the prior violation. Pursuant to 340-12-045 (1)(B)(i) taking all feasible steps to correct a violation normally results in a value of -2. However, pursuant to 340-12-045(1)(B) if the combination of "P" and "H" is a negative numeral, the finding for the combination of the two factors shall be zero. For this reason the "H" factor is assigned a value of -1.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because Respondent's violation existed for one day or less and did not recur on the same day.

"R" is the cause of the violation and receives a value of +2 because Respondent was negligent in causing the violation. Respondent failed to take reasonable care to avoid the foreseeable risk of discharging wastes into waters of the state. Respondent had a duty to conduct the sandblasting and chain locker cleaning operation without discharging waste into the adjacent river. Respondent failed to meet this duty by providing inadequate supervision of employees conducting the operation.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there is insufficient information on which to base any other finding.

PENALTY CALCULATION:

$$\begin{aligned} \text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$3,000 + [(0.1 \times \$3,000) \times (1 - 1 + 0 + 2 + 0)] + \$0 \\ &= \$3,000 + [\$300 \times 2] + \$0 \\ &= \$3,000 + \$600 + \$0 \\ &= \$3,600 \end{aligned}$$

1 of abrasive blast grit material, as required by BMP #12. Respondent failed to prevent abrasive
2 blast grit material from contacting surface waters by placing floating containment booms around
3 the vessel and the grit containment barge in a manner to effectively entrap any accidental surface
4 contaminants as required by BMP #16. Respondent did not prevent residues from high pressure
5 wash water, hydroblasting, or surry blasting from discharging to surface waters by properly
6 handling liquids collected in accordance with the appropriate environmental regulations, as
7 required by BMP #17. This is a Class II violation pursuant to OAR 340-12-055(2)(f).

8 IV. REQUIREMENTS UNDER THIS NOTICE

9 A penalty will be imposed for the violation(s) specified in Section III of this Notice unless
10 the Respondent submits one of the following to the Department within five working days after
11 receipt of this Notice:

12 1. A written response, signed by the president, secretary, treasurer, or vice-president,
13 or person charged with signing/certifying corporate documents, from the Respondent certifying
14 that the permitted facility is complying with all terms and conditions of the Permit. The
15 certification shall include a sufficient description of the information on which the Respondent is
16 certifying compliance so as to enable the Department to determine that compliance has been
17 achieved; OR

18 2. A written proposal to bring the facility into compliance with the Permit which shall
19 include at least the following:

20 a. A detailed plan and time schedule for achieving compliance in the shortest
21 practicable time; and

22 b. A description of the interim steps that will be taken to reduce the impact of
23 the Permit violation(s) until the permitted facility is in compliance with the Permit; and

24 c. A statement that the Respondent has reviewed all other conditions and
25 limitations of the Permit and no other violations of the Permit were discovered.

1 V. CONSEQUENCES OF ADDITIONAL VIOLATIONS OR FAILURE TO RESPOND

2 If the Respondent fails to meet the requirements of Section IV of this Notice, or if the
3 violation(s) cited in Section III continue, or if a Permit violation again occurs within 36 months of
4 Respondent's receipt of this Notice, the Department may assess a civil penalty against
5 Respondent. In the event that a civil penalty is imposed upon Respondent, it will be assessed by a
6 subsequent written notice pursuant to OAR Chapter 340, Division 12. Respondent will be given
7 an opportunity for a contested case hearing to contest the allegations and penalty assessed in that
8 Notice, pursuant to ORS 468.135, ORS Chapter 183, and OAR Chapter 340, Division 11.
9 Respondent is not entitled to a contested case hearing at this time.

10
11 6/16/97

12 Date

Langdon Marsh

Langdon Marsh, Director
Department of Environmental Quality

DEPARTMENT OF ENVIRONMENTAL QUALITY
 TRANSMITTAL ADVICE
 CIVIL PENALTY RECEIPTS

| CK # | TRAN AMNT | FOR THE ACCOUNT OF | CIVIL PENALTY # |
|------------|-----------------|--------------------|-------------------|
| CHECK NAME | | REASON FOR PAYMENT | INV # RCPT # |
| 8702 | 4,200.00 | CASCADE GENERAL | HW-NWR-97-111 |
| | | FULL PAYMENT | |
| 8703 | 3,600.00 | CASCADE GENERAL | WQIW-NWR-97-112-A |
| | | FULL PAYMENT | |
| | <u>7,800.00</u> | TOTAL | |



F A X C O V E R S H E E T

| | | | |
|-------|--------------------------------|--------|----------|
| DATE: | August 4, 1997 | TIME: | 8:37 AM |
| TO: | Ms. Rebecca Paul DEQ-NWR | PHONE: | 229-5433 |
| | | FAX: | 229-6945 |
| FROM: | Alan Sprott Cascade General | PHONE: | 247-1672 |
| | | FAX: | 247-1539 |
| RE: | Techtyl Oils | | |

Number of pages including cover sheet: 5

Message

Rebecca,

The attached is submitted per our meeting. Originals were mailed. Please call with questions.

Alan Sprott

Ex. 113



August 1, 1997

Ms. Rebecca Paul
Department of Environmental Quality
2020 SW Fourth Avenue
Portland, Oregon 97201

Subject: Management of Tectyl Oils
Cascade General, Inc.

This letter is submitted in accordance with the resolutions of our meeting on July 28 regarding Cascade General, Inc.'s (Cascade) management of Tectyl oils in May 1996. Your questions were related to documents recovered during the Department's recent inspection of records at the Oil Re-Refining Company, where the oils were blended into fuel. The specific concerns you raised during our meeting were: 1) that Cascade improperly characterized the material, and 2) that Cascade improperly managed a waste stream.

We have reviewed the records related to this matter; met with the management of Oil Re-Refining; researched the hazardous waste and used oil rules; discussed the issue with Mr. Chris Harris, attorney for the National Oil Recyclers Association; and contacted the EPA RCRA Hotline in order to address your concerns. Based on the findings of these efforts, it is our firm opinion the oils were properly managed by Cascade for the reasons described below.

First, the Department's concern presupposes the Tectyl oils were solid wastes. The Tectyl products were specialty oils purchased by the United States Navy for use on the USS Higgins, which was repaired in the shipyard in 1996. The oils were anti-corrosive lubricants used in a variety of ship systems.

At the completion of the repair, 41 unopened barrels of the Tectyl products remained in Cascade's inventory. Since the products were specialty blends, Cascade was unable to immediately use the oils in other applications and the manufacturer was unwilling to accept them for return. The Navy did not remove the oils from the shipyard, as is customary. The Tectyl oils in inventory, however, were still considered to be product, and therefore were not subject to solid or hazardous waste regulations.

Oil Re-Refining was contracted to transport the Tectyl products from the shipyard. In accordance with Oil Re-Refining's operating procedures and permit requirements, the Tectyl products were profiled for TCLP metals and ignitability. As you are aware, the

flash point of the oils was below 140°F. Nonetheless, this did not preclude the mixing of the products with used oil for subsequent management under the Used Oil Rules, as is explicitly provided for at 40 CFR 279.10(d)(1).

On the day Oil Re-Refining removed the Tectyl products, it mobilized a vacuum truck to the storage site on Cascade property, and pumped the products into a tank containing used oil. Attached are records provided by Oil Re-Refining documenting the presence of 600 gallons of used oil in the tank at the time the Tectyl products were vacuumed. Testing by Oil Re-Refining indicates the flash point of the mixture was greater than 240°F. Supporting documentation is attached.

The mixture of the Tectyl products and used oil in the vacuum truck was clearly subject to the to the Used Oil Rules. Furthermore, both state and federal regulations explicitly allow the mixing and management of ignitable wastes under the Used Oil Rules (OAR 340-111-010 and 40 CFR 279.10(b)(2)(iii)). It stands to reason that if ignitable wastes can be mixed and managed under the Used Oil Rules, so too can ignitable products.

Again, we feel the Tectyl products were characterized and managed by Cascade and Oil Re-Refining in accordance with applicable regulations, and trust our response addresses your concerns. If you would like to discuss this issue further or require additional information, please do not hesitate to contact the undersigned at 247-1672.

Sincerely,



T. Alan Spratt
Director of Environmental Services
CASCADE GENERAL, INC.

Attachments

cc: Wayne Cozad, Cascade General

**** RECEIVING RECORD ** No. 961008**

RECEIVED BY: Oil Re-Refining Company EPA# WAD980986012 PLANT: PORTLAND
4150 N. Suttle Road Phone (503) 286-8352 EMPLOYEE: MAT
Portland, OR 97217 Fax (503) 286-5027 PAGE: 1

RECEIVED FROM: Oil Re-Refining Co. Portland Customer ID# 94
4150 N. Suttle Rd. Phone: 286-8352
DATE: 05/30/96 Portland, OR 97217 Driver: EARL

| QTY. | UNIT | ITEM | MNF | %H2O | %SOLID | B/L# |
|------|------|---------------------------|-----|------|--------|-------|
| 1. | EACH | Clor-D-Tect Kit | N | % | % | 38054 |
| | GEN: | Campbell Crane CDT 500 | | | | |

| TOTAL EAC | UNIT | ITEM | MNF | %H2O | %SOLID | B/L# |
|-----------|------|--|-----|------|--------|-------|
| 1. | | | | | | |
| 500. | GAL. | USED OIL | N | % | % | 38054 |
| | GEN: | Campbell Crane CDT 500 | | | | |
| 2775. | GAL. | Used Oil | N | 0.8 | 0.8 | 38055 |
| | GEN: | Cascade General CDT 50PPM ANALYTICAL ATTACHED | | | | |

TOTAL GAL 3375.

Customer warrants that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 5 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D implementing the Federal Resource Conservation and Recovery Act, or by any State or local hazardous waste classification system. The customer warrants that the waste petroleum products being received are not listed as hazardous waste under 40 CFR part 261, Subpart C, and are not otherwise regulated under any applicable environmental laws or regulations.

Signed X _____

DATE: 07/30/97



VALVOLINE INDUSTRIAL COATINGS
491 RAILROAD STREET
ROCHESTER, PA 15074



Valvoline Industrial Coatings would like to take this opportunity to introduce our Company and products. In the 1930s, Valvoline began to investigate the production of rust preventive compounds for the US military. Up to this time, protective coatings were primarily formulated with straight oils, petrolatums or greases. Protection was limited at best, since these coatings provided only "physical" barriers to moisture.

Through research, Valvoline revealed that the application of thin, "polar" compounds substantially improved the effectiveness of rust preventive coatings. These compounds produced a "magnetic" attraction to metal which forced moisture away chemically and physically. As a result of this breakthrough research, Valvoline began to market and manufacture rust preventives in 1938 under the TECTYL name and in the 1940s, we became one of the first companies to patent corrosion preventive coatings. During World War II, we began supplying TECTYL products to the military.

We've come a long way since the 1930s. Through research and development we have been able to manufacture the most efficient coating systems to meet the long term requirements of our customers. We now offer a variety of solventborne and waterborne coatings for the general industrial, pipe, plastic, maritime, drum and waste container and transportation industries. We also manufacture a wide range of solventborne and waterborne colors and are able to match a color to meet your requirements.

Each coating offers high performance, superior value and is environmentally compliant. For more detailed information, refer to the Product Catalog, or contact us at our TECTYL sales office at 1-800-231-6022.

Ex. 114
(2 pages)



Tectyl Industrial Products is committed to manufacturing and marketing the highest quality corrosion preventive coatings possible to a variety of industries. Our product series have been conveniently organized by industry.

TABLE OF CONTENTS

Automotive/Transportation

- General Rustproofing | OEM Approvals
- Initial Fill/Storage Oils | Greases
- Transportation-Specific Coatings

Industrial

- Oil Film
- Firm/Semi-firm Solventborne
- Waterborne

Government Approvals

- Lubricants/Greases
- Corrosion Preventive Compounds
- Pipe Coatings | Plastic Coatings
- Maritime Coatings | Drum/Waste Container
- Wood Finishes | Approved Cutting Agents

**Additional Information Is Available.
If You Have Any Questions,
Call Our Sales Office At:**



Valvoline International
1-800-231-6022 (INSIDE NORTH AMERICA)
1-412-775-2638
1-412-728-6825 (FAX)

E-mail to Company

Ex. 115
(1 of 2)



Thomas Register
on the Internet

©Thomas Publishing Company, 1999

Thomas Register Product Headings: Coatings, Coatings: Industrial, Coatings: Anti-Corrosion, Coatings: Corrosion Resistant, Coatings: Dip, Coatings: Water Borne, Compounds: Corrosion Resistant, Coatings: Military Specification, Coatings: VOC Compliant, Coatings: Iron & Steel, Undercoatings, Coatings: Protective Maintenance, Coatings: Rust Preventive, Coatings: Metal Surface, Coatings: Metallic, Oils: Engine, Oils & Greases: Lubricating, Coatings: Automotive, Compounds: Metal Coating, Coatings: Protective Permanent, Compounds: Rust Resistant, Coatings: Marine, Inhibitors: Corrosion, Primers, Compounds: Undercoat Automotive, Coatings: Noise Reducing, Coatings: Thin Film, Finishes: Wood, Stains: Brick Concrete, Enamels: Cement Concrete, Finishes: Stains, Enamels: Water Based, Preservatives, Coatings: Topcoat, Coatings: Clear, Coatings: Removal, Coatings: Acrylic, Preservatives: Metal, Preservatives: Wood, Enamels: Aluminum, Enamels: Air Drying, Enamels: Baking, Enamels: Dipping, Enamels: Automotive, Enamels, Enamels: Iron, Enamels: Marine, Enamels: Metal, Enamels: Moisture & Chemical Resistant, Enamels: Oil Resistant, Enamels: Technical, Enamels: Sheet Steel, Enamels: Spraying, Enamels: Corrosion Resistant, Enamels: Wood, Lacquers, Latex Products, Compounds: Weather Resistant, Elastomers, Aerosols, Coatings: Floor, Coatings: Floor Non-Slip, Coatings: Fungus Resistant, Coatings: Gel, Coatings: Latex, Coatings: Maintenance, Coatings: Metallized, Coatings: Oil Resistant, Coating Services, Coatings: Abrasion Resistant, Coatings: Acid & Alkali Resistant, Coatings: Aerosol, Coatings: Aluminum, Coatings: Anti-Fouling, Coatings: Cement Concrete, Coatings: Condensation Resistant, Coatings: Conformal, Coatings: Electrostatic, Coatings: Protective Removable, Coatings: Powder, Coatings: Seal, Coatings: Steel, Coatings: Waterproof, Coatings: Water Based, Coatings: Urethane, Coatings: Transparent, Coatings: Tool, Coatings: Thick Film, Coatings: Tank, Finishes: Fire Resistant, Finishes: Floor, Finishes: Industrial, Finishes: Steel, Finishes: Metal, Stains: Preservative, Stains: Metal Color Coding, Resins: Coating, Paints: Wood Preserving, Paints: Floor

2004



1-800-231-6022 (INSIDE NORTH AMERICA)
1-412-775-2638
1-412-728-6825 (FAX)

Home

INDUSTRIAL
FIRM / SEMI- FIRM SOLVENTBORNE
TECTYL Products

127B

Category
Solventborne [firm]
single coat

Recommended Application Method
Airless spray, dip application

Solventborne, thixotropic, aluminum pigmented corrosion compound. The dry film is firm and non-tacky.

127CG

Category
Solventborne [firm]
single coat

Recommended Application Method
Airless spray

Solventborne, thixotropic, aluminum pigmented corrosion compound. The dry film is firm and non-tacky. Provides excellent weathering and corrosion protection for industrial applications.

Home

127G

Category
Solventborne [firm]
single coat

Recommended Application Method
Airless spray

Solventborne, thixotropic, aluminum pigmented corrosion preventive compound. The dry film is firm and non-tacky. Provides excellent weathering and corrosion protection for industrial applications.

140

Category
Solventborne [firm]
single coat

Recommended Application Method
Spray, dip

Water displacing, solventborne corrosion preventive compound. The dry film is firm, amber, waxy and translucent. Designed for long-term, indoor protection of ferrous and non-ferrous industrial parts.

Ex. 116

Home**151A**

Category
Solventborne
single coat

Recommended Application Method
Spray, dip, flowcoat

Fast-drying, solventborne corrosion preventive compound. The dry film is hard, non-tacky and clear. Excellent for use on aluminum and galvanized surfaces.

164

Category
Solventborne [firm]
single coat

Recommended Application Method
Spray, dip, flowcoat

Solventborne corrosion preventive compound. The dry film is firm and black. Designed for external protection of industrial machined parts for domestic and international shipments.

Home**185GW**

Category
Solventborne [semi - firm]
single coat

pigmented product
Recommended Application Method
Airless spray

Solventborne, thixotropic corrosion preventive compound. The dry film is semi-firm and has a semi-gloss appearance. Provides outstanding protection in marine, tropical and industrial environments. Possesses a dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes.

185GW Aluminum

Category
Solventborne [semi - firm]
single coat

Recommended Application Method
Airless spray

Solventborne, thixotropic corrosion preventive compound. The dry film is semi-firm and has a semi-gloss appearance. Provides outstanding protection in marine, tropical and industrial environments. Possesses a dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes.

Home**400C**

Category
Solventborne [firm]
single coat

Recommended Application Method
Spray, dip

Solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect industrial components and painted surfaces during domestic and international shipment.

400C Black

Category
Solventborne [firm]
single coat

Recommended Application Method
Spray, dip

Solventborne corrosion preventive compound. The dry film is firm, and black. Designed to protect industrial components and painted

surfaces during domestic and international shipment.

Home

400C- WD

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Water displacing, solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect industrial components and painted surfaces during domestic and international shipment.

400HF

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

High flash, solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect industrial components and painted surfaces during domestic and international shipment.

Home

435

Category

Solventborne [firm]

single coat

government specification

Recommended Application Method

Brush, swab, dip

Hot application corrosion preventive compound which provides an effective barrier against atmospheric corrosion. The film is firm, tan in color, and opaque. Approved under MIL-C-11796C, Classes 1 and 1A.

437

Category

Solventborne [semi - firm]

single coat

government specification

Recommended Application Method

Brush, swab, dip

Hot application corrosion preventive compound which provides an effective barrier against atmospheric corrosion. The film is semi-firm, tan in color, and opaque. Approved under MIL-C-11796C, Class 3.

Home

481H

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The film is hard, black and lustrous. Protects industrial parts in indoor and limited outdoor storage.

502C, Class I

Category

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. Semi-firm film is amber and translucent. Designed to protect ferrous and non-ferrous parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 2, for Class I and MIL-P-116J, Type P-2.

Home

502C, Class II

Category

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray, dip

Low VOC, solventborne, corrosion preventive compound. Semi-firm film is amber and translucent. Designed to protect ferrous and non-ferrous parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 2, for Class II and MIL-P-116J, Type P-2.

506

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Excellent for protection of metallic surfaces in long-term indoor or outdoor exposure and during domestic and overseas shipment.

Home

506 Black

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The dry film is firm and black. Excellent for protection of metallic surfaces in long-term indoor or outdoor exposure and during domestic and overseas shipment.

506EH

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

High solids, solventborne, general purpose corrosion preventive compound suitable for the widest range of application requirements for vehicle rustproofing, protection of machinery and parts in storage. Protects parts in indoor or outdoor storage, as well as during domestic and international shipments.

Home

506EH-WD

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

High solids, solventborne, general purpose corrosion preventive compound suitable for the widest range of application requirements for vehicle rustproofing, protection of machinery and parts in storage. Protects parts in indoor or outdoor storage, as well as during domestic and international shipments.

511HF

Category

Solventborne [semi- firm]

single coat

Recommended Application Method

Spray, dip or flush

High flash, solventborne, water displacing corrosion preventive compound. The film is oily, light amber, and translucent. Protects ferrous and non-ferrous industrial parts in indoor and covered storage.

Home**511M, Class I****Category**

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray, dip or flush

Solventborne, water displacing corrosion preventive compound. The semi-firm film is oily, light amber, and translucent. Designed to protect ferrous and non-ferrous industrial parts during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class I; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

511M, Class II**Category**

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray, dip or flush

Low VOC, solventborne, water displacing corrosion preventive compound. The semi-firm film is oily, light amber and translucent. Designed to protect ferrous and non-ferrous industrial parts during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class II; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

Home**517****Category**

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new and fielded transportation equipment. The cured film is black and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes. Approved under MIL-C-0083933A and MIL-C-62218A, Types I and II.

518**Category**

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new transportation equipment. The cured film is translucent and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes. Approved under MIL-C-62218A, Types I.

Home**630G****Category**

Solventborne [semi-firm]

single coat

Recommended Application Method

Warm spray

High solids, low VOC, solventborne, semi-firm corrosion preventive compound. Used to protect industrial parts in covered or indoor storage and shipment.

822B**Category**

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne, general purpose corrosion preventive compound. The dry film is black, firm and abrasion resistant. Excellent for long-term protection of metallic surfaces in indoor or outdoor storage and during domestic or international transit.

Home**846, Class I****Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray, dip

Solventborne, water displacing corrosion preventive compound. The dry film is firm, amber, transparent, and non-tacky. Approved under MIL-C-16173E, Grade 4, for Class I, and Mil-P-116J, Type P-19.

861SGD**Category**

oil film

single coat

Recommended Application Method

Spray, dip, flush, or roller

Oil based, solventborne corrosion preventive compound that cures to a very thin, transparent and slightly oily film. Primarily intended as a steel mill "slushing compound" for protecting galvanized steel during transit and storage.

Home**891, Class I****Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray or dip

Solventborne, firm film, black asphaltic corrosion preventive compound. Excellent for long-term protection of metallic surfaces in indoor or outdoor exposure and during international shipments. Approved under MIL-C-16173E, Grade 1, for Class 1, and MIL-P-1.

891, Class II**Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray or dip

Low VOC, solventborne, firm film, black asphaltic corrosion preventive compound. Excellent for long-term protection of metallic surfaces in indoor or outdoor exposure and during international shipments. Approved under MIL-C-16173E, Grade 1, for Class II, and MIL-P-116J, Type P-1.

Home**894, Class I****Category**

Solventborne [semi-firm]

single coat

government specification
Recommended Application Method
Spray or dip

Solventborne, water displacing corrosion preventive compound. The thinfilm is semi-firm, amber and translucent. Designed to protect ferrous and non-ferrous precision equipment, parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 3, for Class I, and MIL-P-116J, Type P-3.

894, Class II
Category
Solventborne [semi-firm]
single coat
government specification
Recommended Application Method
Spray or dip

Low VOC, solventborne, water displacing corrosion preventive compound. The thin film is semi-firm, amber and translucent. Designed to protect ferrous and non-ferrous precision equipment, parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 3, for Class II, and MIL-P-116J, Type P-3.

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**INDUSTRIAL
 OIL FILM
 TECTYL Products**

275

Category
 oil film
 single coat
 government specification
Recommended Application Method
 Spray, dip

Water displacing, solventborne corrosion preventive compound, lubricant and penetrant. The film is an ultralight, transparent oil that has fingerprint suppressor and removal capabilities. Approved under MIL-C-15074E. Provides protection for industrial parts.

282

Category
 oil film
 single coat
Recommended Application Method
 Spray, dip

Water displacing, solventborne, oil concentrate corrosion preventive compound, lubricant, and penetrant. The film is oily, transparent, and non-staining. To be used in diluted form to protect ferrous and non-ferrous industrial parts.

Home

283S-17HF

Category
 oil film
 single coat
Recommended Application Method
 Spray, dip

Water displacing, solventborne, oil based corrosion preventive compound, lubricant and penetrant. The film is an ultralight, transparent, non-staining oil. Used to protect industrial parts during long-term indoor or covered storage, and during domestic shipment.

Ex. 117
 (4 pages)

287

Category
 oil film
 single coat
Recommended Application Method
 Spray, dip

Corrosion preventive, washing oil, and stamping lubricant for automotive applications. Provides excellent indoor protection for ferrous and non-ferrous industrial parts. Approved for OEM use.

Home

287EP

Category
oil film
single coat

Recommended Application Method

Spray, dip

Corrosion preventive, washing oil, and stamping lubricant for automotive applications. Provides increased lubricity and extreme pressure capabilities for stampings and blanking operations, and provides indoor protection for ferrous and non-ferrous industrial parts. Approved for OEM use.

477D

Category
oil film
single coat

Recommended Application Method

Spray, dip, or flush

Oil concentrate corrosion preventive compound. The film is oily, transparent, and non-staining. Intended to be diluted with mineral oil or aliphatic solvent. The diluted version provides protection for ferrous and non-ferrous industrial parts.

Home

603

Category
oil film
single coat

Recommended Application Method

Dip

Polymeric, water emulsifiable corrosion preventive. Specially formulated for coating phosphated and painted parts such as hinges, bolts, screws, brackets, fasteners, etc. It contains a special additive system which provides a durable, self-healing, corrosion resistant film. The concentrated coating is an amber liquid. The cured film is clear and transparent. Approved GM specification.

700

Category
oil film
single coat

Recommended Application Method

Spray, dip

Oil base corrosion preventive compound with fingerprint suppressing capabilities. Designed to provide protection for finished and unfinished industrial parts in extended indoor storage and during international shipments. OEM approved.

Home

714

Category
oil film
single coat

Recommended Application Method

Spray, slush, dip or brush

Oil based corrosion preventive compound. The film is oily, light bodied, and transparent. Excellent for the protection of sheet steel, coils, bar, and wire in storage or covered transit.

749WD

Category
oil film
single coat

Recommended Application Method

Spray, dip or flowcoat

Water displacing corrosion preventive compound. The dry film is oily and transparent. Designed to protect industrial parts.

Home

754

Category

oil film

single coat

Recommended Application Method

Spray, slush, or dip

Oil based corrosion preventive compound. The film is oily, light bodied, and transparent. Excellent for the protection of industrial parts in storage or covered transit.

779

Category

oil film

single coat

Oil based, light viscosity high flash point absorbing oil formulated for the carbon electrode industry.

Home

810

Category

oil film

single coat

Recommended Application Method

Recirculating systems

Water emulsifiable, oil concentrate preventive compound. The film is thin and oily. Has excellent lubricity for a variety of general industrial metalworking applications.

862

Category

oil film

single coat

Recommended Application Method

Spray or flowcoat

Medium viscosity, oil based corrosion preventive compound. The film is oily and transparent. Provides excellent indoor or undercover protection for ferrous and non-ferrous industrial parts.

900

Category

oil film

single coat

government specification

Recommended Application Method

Spray, line lubricators or dip

Water displacing, low viscosity coating and corrosion preventive compound. Provides protection to ferrous and non-ferrous industrial parts during storage and covered transit. Meets Federal Specification VVL-800C.

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GOVERNMENT APPROVALS

LUBRICANTS / GREASES

TECTYL Products

250-2A-10

Category

oil film

single coat

government specification

Recommended Application Method

Torpedo engine oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt torpedo engines and associated components. Lubricating oil used during operation of the afterbody and the tailcone group of torpedoes. Product is designated as 10 weight, meeting NAVORD SYSCOM Specification WS-12911M.

802A

Category

oil film

single coat

government specification

Recommended Application Method

Spray, slush, dip

Lubricating oil and corrosion preventive compound. Used to protect transportation equipment assemblies. Approved under military specification MIL-L-3150C, Amd. 2, and MIL-P-116J, Type P-7.

Home

858C

Category

oil film

single coat

government specification

Recommended Application Method

Hand, grease gun or pump

Homogeneous grease and corrosion preventive. The film is amber and transparent. It can be used for lubrication and surface corrosion protection of industrial equipment operating over the temperature range of (-65 Deg. to 225 Deg. F) (-54 Deg. to 107 Deg. C). It is an NLGI Number 2 consistency grade grease, approved under MIL-G-10924D.

858F

Category

oil film

Ex. 118
3 pages

single coat

government specification

Recommended Application Method

Hand, grease gun or pump

Synthetic based, homogeneous, water resistant, multi-purpose grease and corrosion preventive. The film is amber and transparent. It can be used for lubrication and surface corrosion protection of all ground vehicles and equipment operating over the temperature range of (-75 Deg. to 400 Deg. F) (-59 Deg. to 204 Deg. C). It is an NLGI Number 2 consistency grade grease, approved under MIL-G-10924F.

Home

910

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under MIL-L-21260D, Grade 10W.

915W40

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under MIL-L-21260D, Grade 15W40.

Home

930

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under MIL-L-21260D, Grade 30.

940

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under MIL-L-21260D, Grade 40.

966

Category

oil film

single coat

government specification

Recommended Application Method

Torpedo engine oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt torpedo engines and associated components. Lubricating oil

used during operation of the afterbody and the tailcone group of torpedoes. Product is designated as 30 weight, meeting NAVORD SYSCOM Specification 6300735.

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**GOVERNMENT APPROVALS
CORROSION PREVENTIVE COMPOUNDS
TECTYL Products**

121B

Category

Solventborne [firm]

single coat

government specification

Recommended Application Method

Airless spray

Solventborne, thixotropic corrosion preventive compound suitable for complete undercoating of transportation equipment. Cured film is firm, black, resilient, abrasion resistant, and provides sound deadening. Approved under Federal Specification TT-C-520B. Lower viscosity versions are available.

275

Category

oil film

single coat

government specification

Recommended Application Method

Spray, dip

Water displacing, solventborne corrosion preventive compound, lubricant and penetrant. The film is an ultralight, transparent oil that has fingerprint suppressor and removal capabilities. Approved under MIL-C-15074E. Provides protection for industrial parts and transportation components.

Home

435

Category

Solventborne [firm]

single coat

government specification

Recommended Application Method

Brush, swab, dip

Hot application corrosion preventive compound which provides an effective barrier against atmospheric corrosion. The film is firm, tan in color, and opaque. Approved under MIL-C-11796C, Classes 1 and 1A.

437

Category

Solventborne [semi - firm]

Ex. 119
(5 pages)

22

single coat
government specification
Recommended Application Method
Brush, swab, dip

Hot application corrosion preventive compound which provides an effective barrier against atmospheric corrosion. The film is semi-firm, tan in color, and opaque. Approved under MIL-C-11796C, Class 3.

Home

502C, Class I
Category
Solventborne [semi - firm]
single coat
government specification
Recommended Application Method
Spray, dip

Solventborne, corrosion preventive compound. Semi-firm film is amber and translucent. Designed to protect ferrous and non-ferrous parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 2, for Class 1, and MIL-P-116J, Type P-2.

502C, Class II
Category
Solventborne [semi - firm]
single coat
government specification
Recommended Application Method
Spray, dip

Low VOC, solventborne, corrosion preventive compound. Semi-firm film is amber and translucent. Designed to protect ferrous and non-ferrous parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 2, for Class II and MIL-P-116J, Type P-2.

Home

511M, Class I
Category
Solventborne [semi - firm]
single coat
government specification
Recommended Application Method
Spray, dip, flush

Solventborne, water displacing corrosion preventive compound. The semi-firm film is oily, light amber, and translucent. Designed to protect ferrous and non-ferrous industrial parts and transportation components during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class I; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

511M, Class II
Category
Solventborne [semi - firm]
single coat
government specification
Recommended Application Method
Spray, dip, flush

Low VOC, solventborne, water displacing corrosion preventive compound. The semi-firm film is oily, light amber, and translucent. Designed to protect ferrous and non-ferrous industrial parts and transportation components during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class II; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

Home

517
Category
Solventborne [semi - firm]
single coat
government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new and fielded transportation equipment. The cured film is black and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes. Approved under MIL-C-0083933A and MIL-C-62218A, Types I and II.

518**Category**

Solventborne [semi - firm]

single coat

government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new transportation equipment. The cured film is translucent and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes. Approved under MIL-C-62218, Type I.

Home**846 Class I****Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray, dip

Solventborne, water displacing, corrosion preventive compound. The dry film is firm, amber, translucent, and non-tacky. Approved under MIL-C-16173E, Grade 4, for Class I, and MIL-P-116J, Type P-19.

891 Class I**Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray or dip

Solventborne, firm film, black asphaltic corrosion preventive compound. Excellent for long-term protection of metallic surfaces in indoor or outdoor exposure and during international shipments. Approved under MIL-C-16173E, Grade 1, for Class I, and MIL-P-116J, Type P-1.

Home**891 Class II****Category**

Solventborne [firm]

single coat

government specification

Recommended Application Method

Spray or dip

Low VOC, solventborne, firm film, black asphaltic corrosion preventive compound. Excellent for long-term protection of metallic surfaces in indoor or outdoor exposure and during international shipments. Approved under MIL-C-16173E, Grade 1, for Class II, and MIL-P-116J, Type P-1.

894 Class I**Category**

Solventborne [semi-firm]

single coat

government specification

Recommended Application Method

Spray or dip

Solventborne, water displacing, corrosion preventive compound. The thin film is semi-firm, amber, and translucent. Designed to protect ferrous and non-ferrous precision equipment, parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E,

Grade 3, for Class I, and MIL-P-116J, Type P-3.

Home

894 Class II

Category

Solventborne [semi-firm]

single coat

government specification

Recommended Application Method

Spray or dip

Low VOC, solventborne, water displacing, corrosion preventive compound. The thin film is semi-firm, amber, and translucent. Designed to protect ferrous and non-ferrous precision equipment, parts in indoor or covered storage and during shipment. Approved under MIL-C-16173E, Grade 3, for Class II, and MIL-P-116J, Type P-3.

900

Category

oil film

single coat

government specification

Recommended Application Method

Spray, line lubricators or dip

Solventborne, water displacing, low viscosity lubricating oil and corrosion preventive compound. Provides protection to ferrous and non-ferrous industrial parts during storage and covered transit. Meets Federal Specification VVL-800C.

Home

944

Category

oil film

single coat

government specification

Recommended Application Method

Spray, dip, brush

Solventborne lubricating oil and corrosion preventive compound meeting the requirements of NAVORD SYSCOM WS-12953E, high flash point specification. The film is oily and translucent. Effective water displacer. Used for the protection of torpedo engines and related assemblies.

959

Category

oil film

single coat

government specification

Recommended Application Method

Spray, dip, brush

Solventborne lubricating oil and corrosion preventive compound meeting the requirements of NAVORD SYSCOM WS-12953E. The film is oily and translucent. Effective water displacer. Used for the protection of torpedo engines and related assemblies.

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AUTOMOTIVE / TRANSPORTATION

INITIAL FILL/STORAGE OILS

TECTYL Products

823EM

Category

oil film

single coat

Recommended Application Method

Spray, circulation, dip

Internal combustion engine oil and corrosion preventive. Film is oily and translucent. Approved under General Motor's Electromotive Division, Approval Number 131-01-25.

859A

Category

oil film

single coat

government specification

Recommended Application Method

Oil / fuel additive

Internal combustion engine lubricating oil, contact and volatile corrosion inhibiting compound. For use as a preservative/additive for enclosed systems where volatile components provide protection above the oil level. Can be used as a contact preservative. Approved under Military Specification Mil-P-462002B, Grade 1.

Home

910

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under Military Specification MIL-L-21260D, Grade 10W.

915W40

Category

oil film

single coat

government specification

Ex. 120
(2 pages)

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under Military Specification MIL-L-21260D, Grade 15W40.

Home

930

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under Military Specification MIL-L-21260D, Grade 30.

940

Category

oil film

single coat

government specification

Recommended Application Method

Factory fill oil

Internal combustion engine oil and corrosion preventive for all new and rebuilt engines. The film is oily and translucent. As a preservative oil, protects engine parts during covered shipment and indoor storage. Approved under Military Specification MIL-L-21260D, Grade 40.

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**AUTOMOTIVE / TRANSPORTATION
 TRANSPORTATION-SPECIFIC COATINGS
 TECTYL Products**

135

Category
 Solventborne [firm]
 single coat

Recommended Application Method
 Airless spray

Solventborne, thixotropic, corrosion preventive compound for rustproofing transportation equipment. Cured film is firm and black.

149

Category
 Solventborne [firm]
 single coat

Recommended Application Method
 Airless spray

Low VOC, solventborne, thixotropic, aluminum pigmented corrosion preventive compound. The dry film is firm and non-tacky. Used for protection of transportation equipment.

Home

155FF

Category
 Solventborne [firm]
 single coat
 pigmented product

Recommended Application Method
 Airless spray

Ex. 121
 (6 pages)

Firm film, solventborne, thixotropic corrosion preventive compound designed for protection of ferrous metal against the formation of rust. Recommended for applications where a firm film coating with weathering properties is required.

275

Category
 oil film
 single coat
 government specification

Recommended Application Method
 Spray, dip

Water displacing, solventborne corrosion preventive compound, lubricant and penetrant. The film is an ultralight, transparent oil that has

fingerprint suppressor and removal capabilities. Approved under MIL-C-15074E. Provides protection for transportation components.

Home

282

Category

oil film

single coat

Recommended Application Method

Spray, dip

Water displacing, solventborne, oil concentrate corrosion preventive compound, lubricant, and penetrant. The film is oily, transparent and non-staining. To be used in diluted form to protect ferrous and non-ferrous transportation components.

329

Category

waterborne

top coat

black, clear

Recommended Application Method

Airless spray

High solids, waterborne corrosion preventive coating for ferrous metals. The cured film is hard and durable. Provides an effective barrier against corrosive environments for ferrous and non-ferrous fabrications and transportation equipment. Can be used as a single-coat system or as the topcoat in a two-part system.

Home

335

Category

waterborne

primer

black, clear

Recommended Application Method

Airless spray

High solids, waterborne corrosion preventive coating for ferrous and non-ferrous metals. The cured film is hard and durable. Designed to be used as a primer for fabricated steel and transportation equipment.

Home

351

Category

waterborne

single coat

Recommended Application Method

Airless spray

Waterborne, asphalt emulsion corrosion preventive compound suitable for complete undercoating of ferrous and non-ferrous metals of transportation equipment. The cured film is firm, black, resilient, matte textured, abrasion resistant, and provides sound deadening. Lower viscosity versions are available.

Home

400C

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect painted surfaces during domestic and international shipment. Used to protect transportation equipment assemblies.

400C Black

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The dry film is firm and black. Designed to protect painted surfaces during domestic and international shipment. Used to protect transportation equipment assemblies.

Home

400-WD

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Water displacing, solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect painted surfaces during domestic and international shipment. Used to protect transportation equipment assemblies.

400HF

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

High flash, solventborne corrosion preventive compound. The dry film is firm, amber, and translucent. Designed to protect painted surfaces during domestic and international shipment. Used to protect transportation equipment assemblies.

Home

481H

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The film is hard, black, and lustrous. Protects transportation equipment in indoor and limited outdoor storage.

506

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray, dip

Solventborne corrosion preventive compound. The dry film is firm, amber and translucent. Excellent for protection of metallic surfaces in long-term indoor or outdoor exposure and during domestic and overseas shipment.

Home

511HF

Category

Solventborne [semi- firm]

single coat

Recommended Application Method

Spray, dip

High flash, solventborne, water displacing corrosion preventive compound. The film is oily, light amber, and translucent. Protects ferrous and non-ferrous transportation equipment in indoor or covered storage.

511M, Class I

Category

Solventborne [semi- firm]

single coat

government specification

Recommended Application Method

Spray, dip or flush

Solventborne, water displacing corrosion preventive compound. The semi-firm film is oily, light amber, and translucent. Designed to protect ferrous and non-ferrous transportation components during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class I; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

Home

511M, Class II

Category

Solventborne [semi-firm]

single coat

government specification

Recommended Application Method

Spray, dip or flush

Low VOC, solventborne, water displacing corrosion preventive compound.

The semi-firm film is oily, light amber, and translucent. Designed to protect ferrous and non-ferrous transportation components during covered shipment and inside storage. Approved under MIL-C-16173E, Grade 5, for Class II; MIL-C-23411A(YD), Type II; and MIL-P-116J, Type P-21.

802A

Category

oil film

single coat

government specification

Recommended Application Method

Spray, slush, dip

Lubricating oil and corrosion preventive compound. Used to protect transportation equipment assemblies. Approved under Military Specification MIL-L-3150C, Amd. 2 and MIL-P-116J, Type P-7.

Home

1420

Category

waterborne

single coat

clear, black

Recommended Application Method

Airless spray, dip

Low VOC, air-dry, waterborne corrosion preventive coating. Provides long-term protection to ferrous and non-ferrous transportation components. Has excellent force dry properties for rapid application processes. High flash versions are available.

Home

1422S

Category

Solventborne [firm]

single coat

clear, black

Recommended Application Method

Air assist airless or airless spray, dip.

Low VOC, high-solids, solventborne corrosion preventive coating. Provides excellent protection to ferrous and non-ferrous metals with a single application. The cured film is hard and flexible. An industrial coating suitable for intermodal chassis, farm, road and construction equipment.

Home

1424 Low Gloss Black

Category

waterborne

single coat

Recommended Application Method

Dip

Low VOC, bake-cure, waterborne corrosion preventive coating. The cured film has excellent solvent and mar resistance. Provides long-term protection for ferrous and non-ferrous transportation equipment.

[Home](#)

2423

Category

waterborne

single coat

pigmented product

Recommended Application Method

Air assist airless or airless spray.

Low VOC, high solids, emulsion corrosion preventive coating. Provides excellent protection to ferrous and non-ferrous metals with a single application. The cured film is hard and flexible. An industrial coating suitable for transportation equipment and components. Designed as a primer but may also be used as a flat finish single coat system.

2473

Category

waterborne

single coat

Recommended Application Method

Air assist airless or airless spray.

Low VOC, high solids, emulsion corrosion preventive coating. Provides excellent protection to ferrous and non-ferrous metals with a single application. The cured film is hard and flexible. An industrial coating suitable for transportation equipment and components. Designed as a primer but may also be used as a flat finish single coat system.

[Home](#)

3473

Category

waterborne

primer

clear, black

Recommended Application Method

airless spray

Low VOC, high-solids, waterborne corrosion preventive coating for ferrous and non ferrous metals. The cured film is hard and flexible. Designed as a primer for long-term protection of fabricated steel and transportation components.

[Home](#)

6423

Category

waterborne

Recommended Application Method

airless spray

government specification

Waterborne, asphalt emulsion corrosion preventive compound suitable for complete undercoating of transportation equipment. The cured film is firm, black, resilient, matte textured, abrasion, resistant, and provides sound deadening. Approved under Federal specification TFC-520B

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**AUTOMOTIVE / TRANSPORTATION
 GENERAL RUSTPROOFING
 TECTYL Products**

107G

Category

Solventborne [firm]

single coat

Recommended Application Method

Airless spray

Solventborne, thixotropic corrosion preventive compound suitable for vehicle rustproofing. Cured film is black, firm, and resilient.

121B

Category

Solventborne [firm]

single coat

government specification

Recommended Application Method

Airless spray

Solventborne, thixotropic corrosion preventive compound suitable for complete undercoating of transportation equipment. Cured film is firm, black, resilient, abrasion resistant and provides sound deadening. Approved under Federal Specification TT-C-520B. Lower viscosity versions are available.

Home

122A

Category

Solventborne [firm]

single coat

Recommended Application Method

Airless spray

Solventborne, medium viscosity corrosion preventive compound recommended for the complete undercoating of transportation equipment. Cured film is firm, dark brown, and abrasion resistant.

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(4 pages)

127B

Category

Solventborne [firm]

single coat

Recommended Application Method

Airless spray, dip

Solventborne, thixotropic, aluminum pigmented corrosion preventive compound. The dry film is firm and non-tacky.

Home

127CG

Category

Solventborne [firm]

single coat

Recommended Application Method

Airless spray

Solventborne, thixotropic, aluminum pigmented corrosion preventive compound. The dry film is firm & non-tacky. Provides excellent weathering and corrosion protection. Recommended for use in the transportation industry as an undercoating and sound deadener.

127G

Category

Solventborne [firm]

single coat

Recommended Application Method

Airless spray

Solventborne, thixotropic, aluminum pigmented corrosion preventive compound. The dry film is firm & non-tacky. Provides excellent weathering and corrosion protection. Recommended for use in the transportation industry as an undercoating and sound deadener.

Home

151A

Category

Solventborne

single coat

Recommended Application Method

Spray, dip, flowcoat

Solventborne, fast-drying, corrosion preventive compound. The dry film is hard, non-tacky & clear. An excellent preservative for the storage or transit protection of finished & unfinished automotive parts. Excellent for use on aluminum and galvanized surfaces.

181G

Category

Solventborne [semi-firm]

single coat

Recommended Application Method

Airless spray

Solventborne corrosion preventive compound. The cured film is dark brown and has a semi-firm, cohesive film. Designed for rustproofing new and used transportation equipment.

Home

185GW

Category

Solventborne [semi-firm]

single coat

pigmented product

Recommended Application Method

Airless spray

Solventborne corrosion preventive compound. The dry film is semi-firm and has a semi-gloss appearance. Provides outstanding protection in marine, tropical and industrial environments, and is widely used for transportation equipment. Possesses a dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes.

185GW Aluminum

Category

Solventborne [semi-firm]

single coat

pigmented product

Recommended Application Method

Airless spray

Solventborne corrosion preventive compound. The dry film is semi-firm and has a semi-gloss appearance. Provides outstanding protection in marine, tropical and industrial environments, and is widely used for transportation equipment. Possesses a dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminals for insulating purposes.

Home

355

Category

waterborne

single coat

government specification

Recommended Application Method

Airless spray

Waterborne, asphalt emulsion corrosion preventive compound suitable for complete undercoating of transportation equipment. Cured film is firm, black, resilient, matte textured, abrasion resistant, and provides sound deadening. Approved under federal specification TT-C-520B.

506G

Category

Solventborne [firm]

single coat

Recommended Application Method

Spray

Solventborne corrosion preventive compound. Dry film is firm, amber and translucent. Widely used as a high performance rustproofing coating for transportation equipment. Thixotropic nature is capable of building high films.

Home

517

Category

Solventborne [semi-firm]

single coat

government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new and fielded transportation equipment. Cured film is black and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminal for insulating purposes. Approved under MIL-C-0083933A and MIL-C-62218A, Types I and II.

518

Category

Solventborne [semi-firm]

single coat

government specification

Recommended Application Method

Spray

Solventborne, thixotropic corrosion preventive compound designed for rustproofing new transportation equipment. The cured film is translucent and semi-firm. Possesses dielectric strength of 800 volts per dry mil of coating. Provides galvanic corrosion protection and can be applied on battery terminal for insulating purposes. Approved under MIL-C-62218, Types I.

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AUTOMOTIVE / TRANSPORTATION

GREASES

TECTYL Products

858C

Category

oil film

single coat

government specification

Recommended Application Method

Hand, grease gun, or pump

Homogeneous grease and corrosion preventive. The film is amber and transparent. It can be used for lubrication and surface corrosion protection of industrial equipment operating over the temperature range of -65 Deg. to 225 Deg. (-54 Deg. to 107 Deg. C). It is an NLGI Number 2 consistency grade grease, approved under MIL-G-10924D..

858F

Category

oil film

single coat

government specification

Recommended Application Method

Hand, grease gun, or pump

Synthetic based, homogeneous, water resistant, multi-purpose grease and corrosion preventive. The film is amber and transparent. It can be used for lubrication and surface corrosion protection of all ground vehicles and equipment operating over the temperature range of -75 Deg. to 400 Deg. F(-59 Deg. to 204 Deg. C). It is an NLGI Number 2 consistency grade grease, approved under MIL-G-10924F.

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(2 pages)

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RCRA-411 Ground-Water Monitoring: Appendix IX Sampling and Offsite Releases

The ground-water monitoring regulations at 40 *CFR* Part 264, Subpart F require owners/operators of facilities with permitted regulated units (i.e., hazardous waste landfills, waste piles, surface impoundments, or land treatment units) to establish a detection monitoring program. During detection monitoring, owners/operators observe indicator parameters to determine if there has been statistically significant evidence of a release of waste constituents from their regulated unit(s) [§ 264.98(a)]. Upon determining that such evidence of a release exists, the owner/operator is required to notify the regional administrator in writing within seven days and immediately sample the ground water for the constituents listed in Part 264, Appendix IX [§ 264.98(g)(1) and (2)]. According to § 264.98(g)(6), an owner/operator may demonstrate that the contamination originated from a source other than the facility's regulated unit(s). If an owner/operator were planning to demonstrate that the source of the release was offsite would he/she still be required to conduct sampling for Appendix IX constituents?

If the statistical methods specified in the facility's permit validate evidence of a release to ground water, § 264.98(g)(2) requires the owner/operator to immediately sample for Part 264, Appendix IX constituents. However, a single failure of a statistical test does not necessarily constitute evidence of a release from a regulated unit because of the high false positive rates associated with single test methods. Yet, while complete Appendix IX sampling would be required after the specified statistical method (the initial test and any retests) indicates a release of waste constituents from regulated units, the owner/operator may specify a statistical method which features test and retest phases and background levels that can indicate whether or not the release is from the facility's regulated unit(s). In some situations, a facility may be able to demonstrate that the contamination came from an offsite source before declaring evidence of a release statistically significant. For assistance, owners/operators can look to their implementing agency or ground-water statistics documents such as Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, PB89-151047 and Statistical Training Course for Groundwater Monitoring Data Analysis, EPA/530/R-93/003.

[March 1997; Regulatory Cross Reference: 264.98]

RCRA-412 Underground Storage Tank (UST) Integrity Assessments

Owners/operators of existing steel underground storage tanks (USTs) may use cathodic protection to meet the corrosion protection upgrading requirements of § 280.21(b). In order to ensure the integrity of the tank prior to installing the cathodic protection system, one of the methods listed in § 280.21(b)(2)(i-iv) must be performed. What options do owners/operators of USTs have for ensuring integrity?

For tanks 10 years of age or older, the integrity assessment must be either an internal inspection or a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment. One alternative method for integrity assessments that was available to many owners/operators of USTs was ASTM ES 40-94 (if approved by the implementing agency), often with a few restrictions. This standard, however, was adopted under an emergency process and was in effect only until November 15, 1996. Although ASTM ES 40-94 expired, EPA recommends that implementing agencies continue to follow their current policies regarding the use of alternative integrity assessment methods until more information and/or more guidance is available.

[March 1997; Regulatory Cross Reference: 280.21(b)(2)]

RCRA-413 Definition of Used Oil

The standards for the management of recycled used oil in 40 *CFR* Part 279 define used oil as "any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities." Does this definition include materials derived from crude oil, such as petroleum-based solvents or antifreeze?

Petroleum-based solvents and antifreeze are not included in the definition of used oil under Part 279. The definition of used oil is based on three criteria: origin, use, and contamination. A material must meet all three parts to be defined as used oil under Part 279.

First, the used oil must be derived from crude oil or synthetic oil (i.e., derived from coal, shale, or polymers). Examples of crude oil-derived oils and synthetic oils are motor oil, mineral oil, laminating surface agents and metalworking oils. The origin-based definition would not include animal and vegetable oils. Second, the oil must have been used as a lubricant, coolant, heat (noncontact) transfer fluid, hydraulic fluid, or for a similar use. Lubricants include, but are not limited to, used motor oil, metalworking lubricants, and emulsions. An example of a hydraulic fluid is transmission fluid. Heat transfer fluids can be materials such as coolants, heating media, refrigeration oils, and electrical insulation oils. Authorized states or regions determine what is considered a "similar use" on a site-specific basis according to whether the material is used and managed in a manner consistent with Part 279 (e.g., used as a buoyant). Third, the used oil must be contaminated by physical (e.g., high water content) or chemical (e.g., lead, halogens, or other hazardous constituents) impurities as a result of use.

Ex. 125

Petroleum-based solvents are not considered to be used oil because solvent use does not meet the use-based criterion. Petroleum-based solvent used for its solvent properties, that is to solubilize (dissolve) or mobilize other constituents, is not used as a lubricant, heat transfer fluid, hydraulic fluid, or similar use (see *57 FR* 41574; September 10, 1992). Antifreeze also is not regulated as used oil under Part 279. Although it is possible for antifreeze to meet all three criteria for used oil, EPA does not intend to regulate antifreeze as used oil and encourages it to be recycled separately.

[April 1997; Regulatory Cross Reference: 279.1 "Used Oil"]

RCRA-414 Treatment Standards for D008 Radioactive Lead Tanks and Containers

The land disposal restrictions (LDR) of 40 *CFR* Part 268 require that certain wastes meet treatment standards before land disposal. Treatment standards are either concentration-based or technology-based. A waste with a concentration-based standard may be treated to meet LDR using any method of effective treatment (except impermissible dilution), while a technology-based standard requires treatment by the specified technology. D008 radioactive lead solids (e.g., all forms of lead shielding, lead "pigs," and other elemental forms of lead) must be treated by the specific treatment standard of macroencapsulation (MACRO) (*55 FR* 22628; June 1, 1990). The MACRO treatment method requires application of surface coatings or jacketing of wastes to reduce surface exposure to leaching media. Macroencapsulation specifically may not be used on "any material that would be classified as a tank or container" (§ 268.42, Table 1). What is the LDR treatment standard for D008 radioactive lead solids that happen to be tanks or containers?

D008 radioactive lead solids that are tanks or containers must be treated using the MACRO treatment technology. The macroencapsulation treatment standard requires that the encapsulating material completely surround the waste and be unbroken (*57 FR* 37235; August 18, 1992). Placement of waste in a container or tank, however, is not considered macroencapsulation for purposes of compliance with LDR (§ 268.42, Table 1). This provision is not intended to preclude macroencapsulation of hazardous tanks and containers, but rather to prevent an owner/operator from merely placing waste in a tank or container in order to meet the standard. Although D008 radioactive lead solids must meet the macroencapsulation treatment standard, an owner/operator may use an alternative treatment method for compliance with LDR if it is shown that the method is equivalent in performance to the specified method (§ 268.42(b)).

[April 1997; Regulatory Cross References: 268.40 (D008 Radioactive Lead Solids Subcategory); 268.42, Table 1 (MACRO)]

RCRA-415 Generator Storage Requirements for Part 266, Subpart F Precious Metals

The regulations in 40 *CFR* Part 266, Subpart F outline the requirements for persons who generate, transport, or store recyclable materials utilized for precious metal recovery. Hazardous wastes which contain economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium are covered by these regulations when reclaimed and are considered recyclable materials. Generators managing these recyclable materials are required to notify EPA of their hazardous waste management activities, comply with the use of the manifest, and keep records to show the materials are not being accumulated speculatively (§ 266.70). If a generator is accumulating recyclable materials to be utilized for precious metal recovery, are they required to store the materials in RCRA-regulated management units (i.e., containers, tanks, or containment buildings)?

No. A generator accumulating materials that contain economically significant amounts of precious metals under Part 266, Subpart F is not required to store the materials in RCRA-regulated management units. EPA provided a partial exemption from Subtitle C for wastes containing precious metals because EPA assumes that these materials will be managed carefully due to their economic value. Since hazardous wastes containing economically significant amounts of precious metals are handled carefully from the point of generation to the point of recovery, the storage of these wastes prior to reclamation is not subject to full RCRA Subtitle C regulation (§ 261.6(a)(2)(iii)). Although the precious metals being reclaimed are not subject to accumulation storage provisions, generators are responsible for counting the waste when it is generated in order to determine how much hazardous waste they generate each month (*50 FR* 652; January 4, 1985).

[April 1997; Regulatory Cross Reference: 266.70]

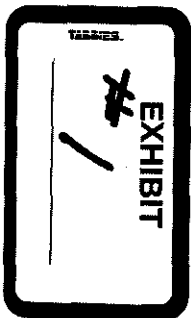
RCRA-416 Applicability of K052 Waste Code to Pipeline Terminals

The hazardous waste listing K052 applies to tank bottoms (leaded) from the petroleum refining industry (§ 261.32). A pipeline company generates leaded tank bottoms at bulk terminals and distribution points which are not part of a refinery. Are these leaded tank bottoms considered K052 waste?

No. The K052 listing is limited to only those leaded tank bottoms which are generated at or as part of a petroleum refinery. Leaded tank bottoms generated at pipeline terminals that are not directly part of a petroleum refinery are not currently listed and will be deemed hazardous only if they exhibit a characteristic of hazardous waste (letter from Lindsey to Keough; June 6, 1981). This interpretation is made clear by the background document, which defines the scope of the listing. That document

OAR 340-108-0002

(11) "Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.



OAR 340-111-0020(2)(c)

"Used Oil" means any oil that has been refined from crude oil, or any synthetic oil that has been used as a lubricant, coolant (non-contact heat transfer fluids), hydraulic fluid or for similar uses and as a result of such use is contaminated by physical or chemical impurities. Used oil includes, but is not limited to, used motor oil, gear oil, greases, machine cutting and coolant oils, hydraulic fluids, brake fluids, electrical insulation oils, heat transfer oils and refrigeration oils. Used oil does not include used oil mixed with hazardous waste except as allowed in 40 CFR 279.10(b), oil (crude or synthetic) based products used as solvents, antifreeze, wastewaters from which the oil has been recovered, and oil contaminated media or debris

40 CFR § 279.1

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.



-CITE-

42 USC Sec. 6935

01/06/97

-EXPCITE-

TITLE 42 - THE PUBLIC HEALTH AND WELFARE
CHAPTER 82 - SOLID WASTE DISPOSAL
SUBCHAPTER III - HAZARDOUS WASTE MANAGEMENT

-HEAD-

Sec. 6935. Restrictions on recycled oil

-STATUTE-

(a) In general

Not later than one year after October 15, 1980, the Administrator shall promulgate regulations establishing such performance standards and other requirements as may be necessary to protect the public health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil, consistent with the protection of human health and the environment.

(b) Identification or listing of used oil as hazardous waste

Not later than twelve months after November 8, 1984, the Administrator shall propose whether to list or identify used automobile and truck crankcase oil as hazardous waste under section 6921 of this title. Not later than twenty-four months after November 8, 1984, the Administrator shall make a final determination whether to list or identify used automobile and truck crankcase oil and other used oil as hazardous wastes under section 6921 of this title.

(c) Used oil which is recycled

generator which has such a permit under section 6925 of this title (or for which a valid permit is deemed to have been issued under subsection (d) of this section);

(ii) such used oil is not mixed by the generator with other types of hazardous wastes; and

(iii) the generator maintains such records relating to such used oil, including records of agreements or other arrangements for delivery of such used oil to any recycling facility referred to in clause (i)(I), as the Administrator deems necessary to protect human health and the environment.

(3) The regulations under this subsection regarding the transportation of used oil which is exempt from the standards promulgated under section (FOOTNOTE 1) 6921(d), 6922, and 6923 of this title under paragraph (1) shall require the transporters of such used oil to deliver such used oil to a facility which has a valid permit under section 6925 of this title or which is deemed to have a valid permit under subsection (d) of this section. The Administrator shall also establish other standards for such transporters as may be necessary to protect human health and the environment.

(d) Permits

(1) The owner or operator of a facility which recycles used oil which is exempt under subsection (c)(1) of this section, shall be deemed to have a permit under this subsection for all such treatment or recycling (and any associated tank or container storage) if such owner and operator comply with standards promulgated by the Administrator under section 6924 of this title; except that the Administrator may require such owners and operators to obtain an individual permit under section 6925(c) of this title if he determines that an individual permit is necessary to protect human health and the environment.

(2) Notwithstanding any other provision of law, any generator who recycles used oil which is exempt under subsection (c)(1) of this

through 266, 268, and parts 270 and 124 of this chapter, and the applicable notification requirements of section 3010 of RCRA. The time period of §262.34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1000 kilograms;

(3) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under part 270 of this chapter;

(ii) In interim status under parts 270 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under part 271 of this chapter;

(iv) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Part 258 of this chapter;

(v) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in §§257.5 through 257.30 of this chapter; or

(vi) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(vii) For universal waste managed under part 273 of this chapter, a universal waste handler or destination facility subject to the requirements of part 273 of this chapter.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in subpart C.

(1) If any person mixes a solid waste with a hazardous waste that exceeds a

quantity exclusion level of this section, the mixture is subject to full regulation.

(j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to part 279 of this chapter. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated.

[51 FR 10174, Mar. 24, 1986, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 53 FR 27163, July 19, 1988; 58 FR 26424, May 3, 1993; 60 FR 25541, May 11, 1995; 61 FR 34278, July 1, 1996; 63 FR 24968, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24968, May 6, 1998, in §261.5, paragraph (j) was amended by removing the phrase "if it is destined to be burned for energy recovery" from the end of the first and second sentences, effective July 6, 1998.

§261.6 Requirements for recyclable materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under subparts C through H of part 266 of this chapter and all applicable provisions in parts 270 and 124 of this chapter:

(i) Recyclable materials used in a manner constituting disposal (subpart C);

(ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subpart O of part 264 or 265 of this chapter (subpart H);

(iii) Recyclable materials from which precious metals are reclaimed (subpart F);

(iv) Spent lead-acid batteries that are being reclaimed (subpart G).

(3) The following recyclable materials are not subject to regulation under parts 262 through parts 266 or parts 268, 270 or 124 of this chapter, and are not subject to the notification requirements of section 3010 of RCRA:

(1) In claimed other elements

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(1) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in §262.58:

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in §§262.53, 262.56 (a)(1)-(4), (6), and (b), and 262.57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in subpart E of part 262, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(i) Scrap metal that is not excluded under §261.4(a)(13);

(ii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under §261.4(a)(12);

(iv)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under §279.11 of this chapter and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and

transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under §279.11 of this chapter; and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under §279.11 of this chapter; and

(v) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person who generated the waste, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in part 261, subpart C.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of parts 260 through 268 of this chapter, but is regulated under part 279 of this chapter. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD) (as defined in §262.58(a)(1)) for purpose of recovery is subject to the requirements of 40 CFR part 262, subpart H, if it is subject to either the Federal manifesting requirements of 40 CFR Part 262, to the universal waste management standards of 40 CFR Part 273, or to State requirements analogous to 40 CFR Part 273.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 262 and 263 of this chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section.

(c)(1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of subparts A through L, AA, BB, and CC of parts 264 and 265, and under parts 124, 266, 268, and 270 of this chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation except as provided in §261.6(d).)

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

(1) Notification requirements under section 3010 of RCRA;

(ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of this chapter.

(iii) Section 261.6(d) of this chapter.

(d) Owners or operators of facilities subject to RCRA permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of subparts AA and BB of part 264 or 265 of this chapter.

[50 FR 49203, Nov. 29, 1985, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 52 FR 11821, Apr. 13, 1987; 55 FR 25493, June 21, 1990; 56 FR 7207, Feb. 21, 1991; 56 FR 32692, July 17, 1991; 57 FR 41612, Sept. 10, 1992; 59 FR 38545, July 28, 1994; 60 FR 25541, May 11, 1995; 61 FR 16309, Apr. 12, 1996; 61 FR 59950, Nov. 25, 1996; 62 FR 26019, May 12, 1997; 63 FR 24968, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24968, May 6, 1998, in §261.6, paragraphs (a)(3)(iv)(A)-(C) were amended by revising the reference "266.40(e)" to read "279.11", effective July 6, 1998.

§261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under parts 261 through 265, or part 268, 270 or 124 of this chapter or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either (1) a container that is not empty or (ii) an

inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under parts 261 through 265, and parts 268, 270 and 124 of this chapter and to the notification requirements of section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in §§261.31, 261.32, or 261.33(e) of this chapter is empty if:

(1) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

(ii) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or

(iii)(A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in §§261.31, 261.32, or 261.33(e) is empty if:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or

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PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A—General

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|-------|--------------------------------|---|
| Sec. | | |
| 261.1 | Purpose and scope. | 261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators. |
| 261.2 | Definition of solid waste. | 261.6 Requirements for recyclable materials. |
| 261.3 | Definition of hazardous waste. | 261.7 Residues of hazardous waste in empty containers. |
| 261.4 | Exclusions. | 261.8 PCB wastes regulated under Toxic Substance Control Act. |
| | | 261.9 Requirements for Universal Waste. |

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§261.1

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Wastes

- 261.10 Criteria for identifying the characteristics of hazardous waste.
- 261.11 Criteria for listing hazardous waste.

Subpart C—Characteristics of Hazardous Waste

- 261.20 General.
- 261.21 Characteristic of ignitability.
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- 261.23 Characteristic of reactivity.
- 261.24 Toxicity characteristic.

Subpart D—Lists of Hazardous Wastes

- 261.30 General.
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- 261.32 Hazardous wastes from specific sources.
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- 261.35 Deletion of certain hazardous waste codes following equipment cleaning and replacement.
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- APPENDIX II TO PART 261—METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)
- APPENDIX III TO PART 261—CHEMICAL ANALYSIS TEST METHODS
- APPENDIX IV TO PART 261—[RESERVED FOR RADIOACTIVE WASTE TEST METHODS]
- APPENDIX V TO PART 261—[RESERVED FOR INFECTIOUS WASTE TREATMENT SPECIFICATIONS]
- APPENDIX VI TO PART 261—[RESERVED FOR ETIOLOGIC AGENTS]
- APPENDIX VII TO PART 261—BASIS FOR LISTING HAZARDOUS WASTE
- APPENDIX VIII TO PART 261—HAZARDOUS CONSTITUENTS
- APPENDIX IX TO PART 261—WASTES EXCLUDED UNDER §§260.20 AND 260.22

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y) and 6938.

SOURCE: 45 FR 33119, May 19, 1980, unless otherwise noted.

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of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in §261.5(c).

[45 FR 33119, May 19, 1980, as amended at 55 FR 18726, May 4, 1990; 57 FR 14, Jan. 2, 1992]

Subpart C—Characteristics of Hazardous Waste

§261.20 General.

(a) A solid waste, as defined in §261.2, which is not excluded from regulation as a hazardous waste under §261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subpart.

[Comment: §262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subpart.]

(b) A hazardous waste which is identified by a characteristic in this subpart is assigned every EPA Hazardous Waste Number that is applicable as set forth in this subpart. This number must be used in complying with the notification requirements of section 3010 of the Act and all applicable record-keeping and reporting requirements under parts 262 through 265, 268, and 270 of this chapter.

(c) For purposes of this subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in appendix I to be a representative sample within the meaning of part 260 of this chapter.

[Comment: Since the appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§260.20 and 260.21.]

[45 FR 33119, May 19, 1980, as amended at 51 FR 40636, Nov. 7, 1986; 55 FR 22684, June 1, 1990; 56 FR 3876, Jan. 31, 1991]

§261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see §260.11), or a Setaflash Closed Cup Tester, using the test method specified

in ASTM Standard D-3278-78 (incorporated by reference, see §260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990]

§261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993]

§261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

[45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990]

§261.24 Toxicity characteristic.

(a) A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is

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considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC

| EPA HW No. ¹ | Contaminant | CAS No. ² | Regulatory Level (mg/L) |
|-------------------------|------------------------------------|----------------------|-------------------------|
| D004 | Arsenic | 7440-38-2 | 5.0 |
| D005 | Barium | 7440-39-3 | 100.0 |
| D018 | Benzene | 71-43-2 | 0.5 |
| D006 | Cadmium | 7440-43-9 | 1.0 |
| D019 | Carbon tetrachloride | 56-23-6 | 0.5 |
| D020 | Chlordane | 57-74-9 | 0.03 |
| D021 | Chlorobenzene | 108-90-7 | 100.0 |
| D022 | Chloroform | 67-66-3 | 6.0 |
| D007 | Chromium | 7440-47-3 | 5.0 |
| D023 | o-Cresol | 95-48-7 | 4200.0 |
| D024 | m-Cresol | 108-39-4 | 4200.0 |
| D025 | p-Cresol | 108-44-6 | 4200.0 |
| D026 | Cresol ..... | ..... | 4200.0 |
| D016 | 2,4-D | 94-75-7 | 10.0 |
| D027 | 1,4-Dichlorobenzene | 106-46-7 | 7.5 |
| D028 | 1,2-Dichloroethane | 107-06-2 | 0.5 |
| D029 | 1,1-Dichloroethylene | 75-35-4 | 0.7 |
| D030 | 2,4-Dinitrotoluene | 121-14-2 | 0.13 |
| D012 | Endrin | 72-20-8 | 0.02 |
| D031 | Heptachlor (and its epoxide) | 76-44-8 | 0.008 |
| D032 | Hexachlorobenzene | 118-74-1 | 0.13 |
| D033 | Hexachlorobutadiene | 87-68-3 | 0.5 |
| D034 | Hexachloroethane | 67-72-1 | 3.0 |
| D008 | Lead | 7439-92-1 | 5.0 |
| D013 | Lindane | 58-89-9 | 0.4 |
| D009 | Mercury | 7439-97-6 | 0.2 |
| D014 | Methoxychlor | 72-43-6 | 10.0 |
| D035 | Methyl ethyl ketone | 78-93-3 | 200.0 |
| D036 | Nitrobenzene | 98-85-3 | 2.0 |
| D037 | Pentachlorophenol | 87-86-6 | 100.0 |
| D038 | Pyridine | 110-86-1 | 0.5 |
| D010 | Selenium | 7782-49-2 | 1.0 |
| D011 | Silver | 7440-22-4 | 5.0 |
| D039 | Tetrachloroethylene | 127-18-4 | 0.7 |
| D015 | Toxaphene | 8001-35-2 | 0.5 |
| D040 | Trichloroethylene | 79-01-6 | 0.5 |
| D041 | 2,4,5-Trichlorophenol | 95-95-4 | 400.0 |
| D042 | 2,4,6-Trichlorophenol | 88-06-2 | 2.0 |
| D017 | 2,4,5-TP (Silvex) | 93-72-1 | 1.0 |
| D043 | Vinyl chloride | 75-01-4 | 0.2 |

¹ Hazardous waste number.

² Chemical abstracts service number.

³ Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

⁴ If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

[55 FR 11862, Mar. 29, 1990, as amended at 55 FR 22684, June 1, 1990; 55 FR 26987, June 29, 1990; 58 FR 46049, Aug. 31, 1993]

Subpart D—Lists of Hazardous Wastes

§261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this subpart by employing one or more of the following Hazard Codes:

- Ignitable Waste (I)
- Corrosive Waste (C)
- Reactive Waste (R)
- Toxicity Characteristic Waste ... (E)
- Acute Hazardous Waste (H)
- Toxic Waste (T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under parts 262 through 265, 268, and part 270 of this chapter.

(d) The following hazardous wastes listed in §261.31 or §261.32 are subject to the exclusion limits for acutely hazardous wastes established in §261.5: EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986; 55 FR 11863, Mar. 29, 1990]

§261.31 Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§260.20 and 260.22 and listed in appendix IX.

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|--|-------------|
| Generic: | | |
| F001 | The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F002 | The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F003 | The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (H)* |
| F004 | The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F005 | The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (H, T) |
| F006 | Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. | (T) |
| F007 | Spent cyanide plating bath solutions from electroplating operations | (R, T) |
| F008 | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. | (R, T) |
| F009 | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. | (R, T) |
| F010 | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. | (R, T) |
| F011 | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations. | (R, T) |
| F012 | Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process. | (T) |
| F019 | Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. | (T) |
| F020 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol). | (H) |
| F021 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives. | (H) |
| F022 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions. | (H) |

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|---|-------------|
| F023 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.) | (H) |
| F024 | Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32.) | (T) |
| F025 | Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. | (T) |
| F026 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions. | (H) |
| F027 | Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.) | (H) |
| F028 | Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027. | (T) |
| F032 | Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| F034 | Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| F035 | Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| F037 | Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. | (T) |

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|--|-------------|
| F038 | Petroleum refinery secondary (emulsified) oil/water/solids separation sludge—Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. | (T) |
| F039 | Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.) | (T) |

(b) Listing Specific Definitions: (1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.(2) (1) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and (A) the units employ a minimum of 6 hp per million gallons of treatment volume; and either (B) the hydraulic retention time of the unit is no longer than 5 days; or (C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that: (A) the unit is an aggressive biological treatment unit as defined in this subsection; and (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

(3) (1) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the purposes of the F038 listing,

(A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and

(B) floats are considered to be generated at the moment they are formed in the top of the unit.

[46 FR 4617, Jan. 16, 1981, as amended at 60 FR 33913, June 29, 1995]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.31, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.32 Hazardous wastes from specific sources.

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in appendix IX.

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|---|-------------|
| Wood preservation: K001 | Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|--|-------------|
| Inorganic pigments: | | |
| K002 | Wastewater treatment sludge from the production of chrome yellow and orange pigments. | (T) |
| K003 | Wastewater treatment sludge from the production of molybdate orange pigments | (M) |
| K004 | Wastewater treatment sludge from the production of zinc yellow pigments | (M) |
| K005 | Wastewater treatment sludge from the production of chrome green pigments | (M) |
| K006 | Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated). | (M) |
| K007 | Wastewater treatment sludge from the production of iron blue pigments | (M) |
| K008 | Oven residue from the production of chrome oxide green pigments | (M) |
| Organic chemicals: | | |
| K009 | Distillation bottoms from the production of acetaldehyde from ethylene | (E) |
| K010 | Distillation side cuts from the production of acetaldehyde from ethylene | (E) |
| K011 | Bottom stream from the wastewater stripper in the production of acrylonitrile | (R, T) |
| K013 | Bottom stream from the acetonitrile column in the production of acrylonitrile | (R, T) |
| K014 | Bottoms from the acetonitrile purification column in the production of acrylonitrile | (E) |
| K015 | Still bottoms from the distillation of benzyl chloride | (E) |
| K016 | Heavy ends or distillation residues from the production of carbon tetrachloride | (E) |
| K017 | Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. | (E) |
| K018 | Heavy ends from the fractionation column in ethyl chloride production | (E) |
| K019 | Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. | (E) |
| K020 | Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production | (E) |
| K021 | Aqueous spent antimony catalyst waste from fluoromethanes production | (E) |
| K022 | Distillation bottom tars from the production of phenol/acetone from cumene | (E) |
| K023 | Distillation light ends from the production of phthalic anhydride from naphthalene | (E) |
| K024 | Distillation bottoms from the production of phthalic anhydride from naphthalene | (E) |
| K025 | Distillation bottoms from the production of nitrobenzene by the nitration of benzene ... | (E) |
| K026 | Stripping still tails from the production of methyl ethyl pyridines | (E) |
| K027 | Centrifuge and distillation residues from toluene diisocyanate production | (R, T) |
| K028 | Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. | (E) |
| K029 | Waste from the product steam stripper in the production of 1,1,1-trichloroethane | (E) |
| K030 | Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. | (E) |
| K063 | Distillation bottoms from aniline production | (E) |
| K065 | Distillation or fractionation column bottoms from the production of chlorobenzenes | (E) |
| K093 | Distillation light ends from the production of phthalic anhydride from ortho-xylene | (E) |
| K094 | Distillation bottoms from the production of phthalic anhydride from ortho-xylene | (E) |
| K095 | Distillation bottoms from the production of 1,1,1-trichloroethane | (E) |
| K096 | Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane | (E) |
| K103 | Process residues from aniline extraction from the production of aniline | (E) |
| K104 | Combined wastewater streams generated from nitrobenzene/aniline production | (E) |
| K105 | Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. | (E) |
| K107 | Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (C, T) |
| K108 | Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (I, T) |
| K109 | Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (T) |
| K110 | Condensed column overheads from intermediates separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (T) |
| K111 | Product washwaters from the production of dinitrotoluene via nitration of toluene | (C, T) |
| K112 | Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. | (T) |
| K113 | Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. | (T) |
| K114 | Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. | (T) |
| K115 | Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. | (T) |
| K116 | Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. | (T) |
| K117 | Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene. | (T) |
| K118 | Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. | (T) |
| K136 | Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. | (T) |
| K140 | Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol. | (T) |

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|---|-------------|
| K149 | Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.) | (T) |
| K150 | Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. | (T) |
| K151 | Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. | (T) |
| K156 | Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) | (T) |
| K157 | Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) | (T) |
| K158 | Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) | (T) |
| K159 | Organics from the treatment of thiocarbamate wastes | (T) |
| K161 | Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.) | (R,T) |
| Inorganic chemicals: | | |
| K071 | Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. | (T) |
| K073 | Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. | (T) |
| K106 | Wastewater treatment sludge from the mercury cell process in chlorine production | (T) |
| Pesticides: | | |
| K031 | By-product salts generated in the production of MSMA and cacodylic acid | (T) |
| K032 | Wastewater treatment sludge from the production of chlordane | (T) |
| K033 | Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. | (T) |
| K034 | Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. | (T) |
| K035 | Wastewater treatment sludges generated in the production of cresote | (T) |
| K036 | Still bottoms from toluene reclamation distillation in the production of disulfoton | (T) |
| K037 | Wastewater treatment sludges from the production of disulfoton | (T) |
| K038 | Wastewater from the washing and stripping of phorate production | (T) |
| K039 | Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. | (T) |
| K040 | Wastewater treatment sludge from the production of phorate | (T) |
| K041 | Wastewater treatment sludge from the production of toxaphene | (T) |
| K042 | Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. | (T) |
| K043 | 2,6-Dichlorophenol waste from the production of 2,4-D | (T) |
| K067 | Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. | (T) |
| K088 | Untreated process wastewater from the production of toxaphene | (T) |
| K089 | Untreated wastewater from the production of 2,4-D | (T) |
| K123 | Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt. | (T) |
| K124 | Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. | (C, T) |
| K125 | Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. | (T) |
| K126 | Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts. | (T) |
| K131 | Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. | (C, T) |
| K132 | Spent absorbent and wastewater separator solids from the production of methyl bromide. | (T) |
| Explosives: | | |
| K044 | Wastewater treatment sludges from the manufacturing and processing of explosives | (R) |
| K045 | Spent carbon from the treatment of wastewater containing explosives | (R) |
| K046 | Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. | (T) |
| K047 | Pink/red water from TNT operations | (R) |

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|--------------------------------------|---|-------------|
| Petroleum refining: | | |
| K048 | Dissolved air flotation (DAF) float from the petroleum refining industry | (T) |
| K049 | Slop oil emulsion solids from the petroleum refining industry | (T) |
| K050 | Heat exchanger bundle cleaning sludge from the petroleum refining industry | (T) |
| K051 | API separator sludge from the petroleum refining industry | (T) |
| K052 | Tank bottoms (lead) from the petroleum refining industry | (T) |
| Iron and steel: | | |
| K061 | Emission control dust/sludge from the primary production of steel in electric furnaces | (T) |
| K062 | Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). | (C,T) |
| Primary copper: | | |
| K064 | Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production. | (T) |
| Primary lead: | | |
| K065 | Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities. | (T) |
| Primary zinc: | | |
| K066 | Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production. | (T) |
| Primary aluminum: | | |
| K068 | Spent potliners from primary aluminum reduction | (T) |
| Ferrosilloys: | | |
| K090 | Emission control dust or sludge from ferrochromium-silicon production | (T) |
| K091 | Emission control dust or sludge from ferrochromium production | (T) |
| Secondary lead: | | |
| K069 | Emission control dust/sludge from secondary lead smelting. (NOTE: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register. | (T) |
| K100 | Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. | (T) |
| Veterinary pharmaceuticals: | | |
| K084 | Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. | (T) |
| K101 | Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. | (T) |
| K102 | Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. | (T) |
| Ink formulation: | | |
| K066 | Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. | (T) |
| Coking: | | |
| K060 | Ammonia still lime sludge from coking operations | (T) |
| K067 | Decanter tank tar sludge from coking operations | (T) |
| K141 | Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K067 (decanter tank tar sludges from coking operations). | (T) |
| K142 | Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. | (T) |
| K143 | Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal. | (T) |
| K144 | Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal. | (T) |
| K145 | Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal. | (T) |
| K147 | Tar storage tank residues from coal tar refining | (T) |
| K148 | Residues from coal tar distillation, including but not limited to, still bottoms | (T) |

[46 FR 4618, Jan. 16, 1981]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §261.32, see the List of CFR Sections Affected in the Finding Aids section of this volume.

EFFECTIVE DATE NOTE: At 63 FR 24625, May 4, 1998, in §261.32, the table was amended by adding, in numerical order, the entry for waste stream K140 to the subgroup "Organic chemicals", effective Nov. 4, 1998.

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in § 261.7(b) of this chapter.

[*Comment:* Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a

drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

[*Comment:* The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either § 261.31 or § 261.32 or will be identified as a hazardous waste by the characteristics set forth in subpart C of this part.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in § 261.5(e).

[*Comment:* For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| P023 | 107-20-0 | Acetaldehyde, chloro- |
| P002 | 591-08-2 | Acetamide, N-(aminothioxomethyl)- |
| P057 | 640-19-7 | Acetamide, 2-fluoro- |
| P058 | 82-74-8 | Acetic acid, fluoro-, sodium salt |
| P002 | 591-08-2 | 1-Acetyl-2-thiourea |
| P003 | 107-02-8 | Acrolein |
| P070 | 116-06-3 | Aldicarb |
| P203 | 1646-88-4 | Aldicarb sulfone. |
| P004 | 309-00-2 | Aldrin |
| P005 | 107-18-6 | Allyl alcohol |
| P006 | 20859-73-8 | Aluminum phosphide (R,T) |
| P007 | 2763-86-4 | 5-(Aminomethyl)-3-isoxazolid |
| P008 | 504-24-5 | 4-Aminopyridine |
| P009 | 131-74-8 | Ammonium picrate (R) |
| P119 | 7803-55-8 | Ammonium vanadate |
| P099 | 506-81-6 | Argentate(1-), bis(cyano-C)-, potassium |
| P010 | 7778-39-4 | Arsenic acid H ₃ AsO ₄ |
| P012 | 1327-53-3 | Arsenic oxide As ₂ O ₃ |
| P011 | 1303-28-2 | Arsenic oxide As ₂ O ₅ |
| P011 | 1303-28-2 | Arsenic pentoxide |
| P012 | 1327-53-3 | Arsenic trioxide |
| P036 | 692-42-2 | Arsine, diethyl- |
| P036 | 696-28-6 | Arsinous dichloride, phenyl- |
| P054 | 151-56-4 | Azirdine |
| P067 | 75-65-8 | Azirdine, 2-methyl- |
| P013 | 542-82-1 | Barium cyanide |
| P024 | 106-47-8 | Benzenamine, 4-chloro- |
| P077 | 100-01-6 | Benzenamine, 4-nitro- |
| P028 | 100-44-7 | Benzene, (chloromethyl)- |
| P042 | 51-43-4 | 1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)- |
| P046 | 122-09-8 | Benzeneethanamine, alpha,alpha-dimethyl- |
| P014 | 106-98-6 | Benzenethiol |
| P127 | 1563-66-2 | 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate. |
| P188 | 57-64-7 | Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo(2,3-b)indol-5-yl methylcarbamate ester (1:1). |
| P001 | 181-81-2 | 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3% |
| P028 | 100-44-7 | Benzyl chloride |
| P015 | 7440-41-7 | Beryllium powder |
| P017 | 596-31-2 | Bromoacetone |
| P018 | 357-57-3 | Brucine |
| P045 | 39196-18-4 | 2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-(methylamino)carbonyl oxime |
| P021 | 592-01-8 | Calcium cyanide |
| P021 | 592-01-8 | Calcium cyanide Ca(CN) ₂ |
| P189 | 55285-14-8 | Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester. |
| P191 | 644-64-4 | Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester. |
| P182 | 119-38-0 | Carbamic acid, dimethyl-, 3-methyl-1- (1-methyltetrahy)-1H- pyrazol-5-yl ester. |
| P190 | 1129-41-5 | Carbamic acid, methyl-, 3-methylphenyl ester. |
| P127 | 1563-66-2 | Carbofuran. |
| P022 | 75-15-0 | Carbon disulfide |
| P095 | 75-44-6 | Carbonic dichloride |
| P189 | 55285-14-8 | Carbosulfan. |
| P023 | 107-20-0 | Chloroacetaldehyde |
| P024 | 106-47-8 | p-Chloroaniline |
| P026 | 5344-82-1 | 1-(o-Chlorophenyl)thiourea |
| P027 | 542-76-7 | 3-Chloropropionitrile |
| P029 | 544-82-3 | Copper cyanide |
| P029 | 544-82-3 | Copper cyanide Cu(CN) |
| P202 | 64-00-8 | m-Cumenyl methylcarbamate. |
| P030 | ..... | Cyanides (soluble cyanide salts), not otherwise specified |
| P031 | 480-19-5 | Cyanogen |
| P033 | 506-77-4 | Cyanogen chloride |
| P033 | 506-77-4 | Cyanogen chloride (CN)Cl |
| P034 | 131-89-5 | 2-Cyclohexyl-4,6-dinitrophenol |
| P016 | 542-88-1 | Dichloromethyl ether |
| P036 | 696-28-6 | Dichlorophenylarsine |
| P037 | 60-57-1 | Dieldrin |
| P038 | 692-42-2 | Diethylarsine |
| P041 | 311-45-5 | Diethyl-p-nitrophenyl phosphate |
| P040 | 297-97-2 | O,O-Diethyl O-pyrazinyl phosphorothioate |
| P043 | 55-81-4 | Diisopropylfluorophosphate (DFP) |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| P004 | 309-00-2 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- |
| P060 | 465-73-6 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)- |
| P037 | 60-67-1 | 2,7,3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta,7alpha)- |
| P051 | 172-20-8 | 2,7,3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7alpha)-, & metabolites |
| P044 | 60-61-5 | Dimethoate |
| P048 | 122-09-8 | alpha,alpha-Dimethylphenethylamine |
| P191 | 644-84-4 | Dimetilan. |
| P047 | 1534-62-1 | 4,6-Dinitro-o-cresol, & salts |
| P048 | 51-28-5 | 2,4-Dinitrophenol |
| P020 | 88-85-7 | Dinoseb |
| P085 | 152-18-9 | Diphosphoramidate, octamethyl- |
| P111 | 107-49-3 | Diphosphoric acid, tetraethyl ester |
| P039 | 298-04-4 | Disulfoton |
| P049 | 541-63-7 | Dithiobiuret |
| P185 | 26419-73-8 | 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime. |
| P050 | 115-29-7 | Endosulfan |
| P088 | 145-73-3 | Endothal |
| P051 | 72-20-8 | Endrin |
| P051 | 72-20-8 | Endrin, & metabolites |
| P042 | 51-43-4 | Epinephrine |
| P031 | 480-19-5 | Ethanedinitrile |
| P194 | 23135-22-0 | Ethanimidothioic acid, 2-(dimethylamino)-N-[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester. |
| P066 | 16752-77-5 | Ethanimidothioic acid, N-[(methylamino)carbonyl]oxy]-, methyl ester |
| P101 | 107-12-0 | Ethyl cyanide |
| P054 | 151-56-4 | Ethyleneimine |
| P087 | 52-85-7 | Famphur |
| P056 | 7782-41-4 | Fluorine |
| P057 | 640-19-7 | Fluoroacetamide |
| P058 | 62-74-8 | Fluoroacetic acid, sodium salt |
| P188 | 23422-53-9 | Formetanate hydrochloride. |
| P197 | 17702-67-7 | Fomparanate. |
| P085 | 628-86-4 | Fulminic acid, mercury(2+) salt (R,T) |
| P059 | 76-44-8 | Heptachlor |
| P082 | 757-58-4 | Hexaethyl tetraphosphate |
| P116 | 79-19-6 | Hydrazinecarbothioamide |
| P068 | 60-34-4 | Hydrazine, methyl- |
| P063 | 74-90-8 | Hydrocyanic acid |
| P063 | 74-90-8 | Hydrogen cyanide |
| P066 | 7803-61-2 | Hydrogen phosphide |
| P080 | 465-73-6 | Isodrin |
| P182 | 119-38-0 | Isolan. |
| P202 | 64-00-6 | 3-Isopropylphenyl N-methylcarbamate. |
| P007 | 2783-96-4 | 3(2H)-Isoxazolone, 5-(aminomethyl)- |
| P196 | 15339-36-3 | Manganese, bis(dimethylcarbamodithioato-S,S')- |
| P198 | 15339-36-3 | Manganese dimethyldithiocarbamate. |
| P082 | 62-38-4 | Mercury, (acetato-O)phenyl- |
| P085 | 628-86-4 | Mercury fulminate (R,T) |
| P082 | 62-75-9 | Methanamine, N-methyl-N-nitroso- |
| P064 | 624-83-9 | Methane, isocyanato- |
| P016 | 542-88-1 | Methane, oxybis(chloro- |
| P112 | 508-14-8 | Methane, tetranitro- (R) |
| P118 | 75-70-7 | Methanethiol, trichloro- |
| P188 | 23422-53-9 | Methanimidamide, N,N-dimethyl-N'-3-[(methylamino)carbonyl]oxyphenyl]-, monohydrochloride. |
| P197 | 17702-67-7 | Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[(methylamino)carbonyl]oxyphenyl]- |
| P050 | 115-29-7 | 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9a-hexahydro-, 3-oxide |
| P059 | 76-44-8 | 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- |
| P189 | 2032-65-7 | Methiocarb. |
| P086 | 16752-77-5 | Methomyl |
| P088 | 60-34-4 | Methyl hydrazine |
| P084 | 624-83-9 | Methyl isocyanate |
| P089 | 75-86-6 | 2-Methylacetonitrile |
| P071 | 298-00-0 | Methyl parathion |
| P190 | 1129-41-6 | Metoicarb. |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|--|
| P128 | 315-8-4 | Mezocarbate. |
| P072 | 86-88-4 | alpha-Naphthylthiourea |
| P073 | 13463-39-3 | Nickel carbonyl |
| P073 | 13463-39-3 | Nickel carbonyl Ni(CO) ₄ (T-4) |
| P074 | 557-19-7 | Nickel cyanide |
| P074 | 557-19-7 | Nickel cyanide Ni(CN) ₂ |
| P075 | 154-11-6 | Nicotine, & salts |
| P076 | 10102-43-9 | Nitric oxide |
| P077 | 100-01-6 | p-Nitroaniline |
| P078 | 10102-44-0 | Nitrogen dioxide |
| P078 | 10102-43-9 | Nitrogen oxide NO |
| P078 | 10102-44-0 | Nitrogen oxide NO ₂ |
| P081 | 55-63-0 | Nitroglycerine (R) |
| P082 | 82-75-9 | N-Nitrosodimethylamine |
| P084 | 4549-40-0 | N-Nitrosomethylvinylamine |
| P085 | 152-18-9 | Octamethylpyrophosphoramide |
| P087 | 20816-12-0 | Osmium oxide OsO ₄ (T-4) |
| P087 | 20816-12-0 | Osmium tetroxide |
| P088 | 145-73-3 | 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid |
| P184 | 23135-22-0 | Oxamyl |
| P089 | 59-38-2 | Parathion |
| P034 | 131-89-6 | Phenol, 2-cyclohexyl-4,6-dinitro- |
| P048 | 51-28-5 | Phenol, 2,4-dinitro- |
| P047 | 1534-62-1 | Phenol, 2-methyl-4,6-dinitro-, & salts |
| P020 | 88-85-7 | Phenol, 2-(1-methylpropyl)-4,6-dinitro- |
| P009 | 131-74-8 | Phenol, 2,4,6-trinitro-, ammonium salt (R) |
| P128 | 315-18-4 | Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester). |
| P199 | 2032-65-7 | Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate |
| P202 | 64-00-8 | Phenol, 3-(1-methylethyl)-, methyl carbamate. |
| P201 | 2631-37-0 | Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate. |
| P082 | 82-38-4 | Phenylmercury acetate |
| P083 | 103-85-6 | Phenylthiourea |
| P094 | 298-02-2 | Phosgene |
| P086 | 75-44-6 | Phosgene |
| P086 | 7803-51-2 | Phosphine |
| P041 | 311-45-5 | Phosphoric acid, diethyl 4-nitrophenyl ester |
| P039 | 298-04-4 | Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester |
| P094 | 298-02-2 | Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester |
| P044 | 60-61-6 | Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester |
| P043 | 55-91-4 | Phosphorothioic acid, bis(1-methylethyl) ester |
| P089 | 56-38-2 | Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester |
| P040 | 297-97-2 | Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester |
| P087 | 52-85-7 | Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester |
| P071 | 298-00-0 | Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester |
| P204 | 57-47-6 | Physostigmine. |
| P188 | 57-84-7 | Physostigmine salicylate. |
| P110 | 78-00-2 | Plumbane, tetraethyl- |
| P088 | 151-60-8 | Potassium cyanide |
| P098 | 151-50-8 | Potassium cyanide K(CN) |
| P099 | 506-81-6 | Potassium silver cyanide |
| P201 | 2631-37-0 | Promecarb |
| P070 | 116-06-3 | Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime |
| P203 | 1848-88-4 | Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime. |
| P101 | 107-12-0 | Propanenitrile |
| P027 | 542-76-7 | Propanenitrile, 3-chloro- |
| P069 | 75-86-6 | Propanenitrile, 2-hydroxy-2-methyl- |
| P081 | 55-63-0 | 1,2,3-Propanetriol, trinitrate (R) |
| P017 | 596-31-2 | 2-Propanone, 1-bromo- |
| P102 | 107-19-7 | Propargyl alcohol |
| P003 | 107-02-8 | 2-Propenal |
| P005 | 107-18-8 | 2-Propen-1-ol |
| P067 | 75-55-8 | 1,2-Propylenimine |
| P102 | 107-19-7 | 2-Propyn-1-ol |
| P008 | 504-24-5 | 4-Pyridinamine |
| P075 | 154-11-6 | Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts |
| P204 | 57-47-6 | Pyrolo[2,3-b]indol-6-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-. |
| P114 | 12039-52-0 | Selenious acid, diethalium(1+) salt |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| P103 | 630-10-4 | Selenourea |
| P104 | 506-64-9 | Silver cyanide |
| P104 | 506-64-9 | Silver cyanide Ag(CN) |
| P105 | 29529-22-8 | Sodium azide |
| P106 | 143-33-9 | Sodium cyanide |
| P106 | 143-33-9 | Sodium cyanide Na(CN) |
| P108 | 157-24-9 | Strychnidin-10-one, & salts |
| P018 | 357-67-3 | Strychnidin-10-one, 2,3-dimethoxy- |
| P108 | 157-24-9 | Strychnine, & salts |
| P115 | 7446-18-6 | Sulfuric acid, dithallium(1+) salt |
| P109 | 3689-24-5 | Tetraethylthiopyrophosphate |
| P110 | 78-00-2 | Tetraethyl lead |
| P111 | 107-49-3 | Tetraethyl pyrophosphate |
| P112 | 509-14-8 | Tetranitromethane (R) |
| P082 | 757-58-4 | Tetraphosphoric acid, hexaethyl ester |
| P113 | 1314-32-5 | Thallic oxide |
| P113 | 1314-32-5 | Thallium oxide Tl ₂ O ₃ |
| P114 | 12039-62-0 | Thallium(I) selenite |
| P115 | 7446-18-6 | Thallium(I) sulfate |
| P109 | 3689-24-5 | Thiodiphosphoric acid, tetraethyl ester |
| P045 | 39196-18-4 | Thiofanox |
| P049 | 541-63-7 | Thioimidocarbonic diamide ((H ₂ N)C(S)) ₂ NH |
| P014 | 106-66-5 | Thiophenol |
| P116 | 79-19-6 | Thiosemicarbazide |
| P026 | 5344-62-1 | Thiourea, (2-chlorophenyl)- |
| P072 | 86-68-4 | Thiourea, 1-naphthalenyl- |
| P083 | 103-85-5 | Thiourea, phenyl- |
| P185 | 29419-73-8 | Tirpate. |
| P123 | 8001-35-2 | Toxaphene |
| P118 | 75-70-7 | Trichloromethanethiol |
| P119 | 7803-65-8 | Vanadic acid, ammonium salt |
| P120 | 1314-62-1 | Vanadium oxide V ₂ O ₅ |
| P120 | 1314-62-1 | Vanadium pentoxide |
| P084 | 4549-40-0 | Vinylamine, N-methyl-N-nitroso- |
| P001 | 181-81-2 | Warfarin, & salts, when present at concentrations greater than 0.3% |
| P205 | 137-30-4 | Zinc, bis(dimethylcarbamodithioato-S,S') |
| P121 | 557-21-1 | Zinc cyanide |
| P121 | 557-21-1 | Zinc cyanide Zn(CN) ₂ |
| P122 | 1314-64-7 | Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10% (R,T) |
| P205 | 137-30-4 | Ziram. |

¹ CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in § 261.5 (a) and (g).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| U094 | 30558-43-1 | A2213. |
| U001 | 75-07-0 | Acetaldehyde (I) |
| U034 | 75-67-8 | Acetaldehyde, trichloro- |
| U187 | 62-44-2 | Acetamide, N-(4-ethoxyphenyl)- |
| U005 | 53-06-3 | Acetamide, N-9H-fluoren-2-yl- |
| U240 | 194-75-7 | Acetic acid, (2,4-dichlorophenoxy)-, salts & esters |
| U112 | 141-78-8 | Acetic acid ethyl ester (I) |
| U144 | 301-04-2 | Acetic acid, lead(2+) salt |
| U214 | 563-68-8 | Acetic acid, thallium(1+) salt |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| see F027 | 93-78-6 | Acetic acid, (2,4,5-trichlorophenoxy)- |
| U002 | 67-84-1 | Acetone (I) |
| U003 | 75-05-8 | Acetonitrile (I,T) |
| U004 | 98-86-2 | Acetophenone |
| U005 | 53-96-3 | 2-Acetylaminofluorene |
| U006 | 75-36-6 | Acetyl chloride (C,R,T) |
| U007 | 79-06-1 | Acrylamide |
| U008 | 79-10-7 | Acrylic acid (I) |
| U009 | 107-13-1 | Acrylonitrile |
| U011 | 61-82-5 | Amitrole |
| U012 | 62-53-3 | Aniline (I,T) |
| U136 | 75-60-5 | Arsinic acid, dimethyl- |
| U014 | 492-80-8 | Auramine |
| U015 | 115-02-6 | Azasene |
| U010 | 50-07-7 | Azirino[2',3'≡3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[aminocarbonyloxy]methyl]-1,1a,2,6,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha,6beta,8aalpha,8balpha)]- |
| U280 | 101-27-9 | Barban. |
| U278 | 22781-23-3 | Bendiocarb. |
| U364 | 22861-82-8 | Bendiocarb phenol. |
| U271 | 17804-35-2 | Benomyl. |
| U157 | 58-49-6 | Benz[<i>j</i>]aceanthrylene, 1,2-dihydro-3-methyl- |
| U018 | 225-61-4 | Benz[<i>c</i>]acridine |
| U017 | 98-87-3 | Benzal chloride |
| U192 | 23950-58-5 | Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)- |
| U018 | 58-65-3 | Benz[<i>a</i>]anthracene |
| U094 | 57-87-8 | Benz[<i>a</i>]anthracene, 7,12-dimethyl- |
| U012 | 62-53-3 | Benzenamine (I,T) |
| U014 | 492-80-8 | Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl- |
| U049 | 3165-93-3 | Benzenamine, 4-chloro-2-methyl-, hydrochloride |
| U093 | 60-11-7 | Benzenamine, N,N-dimethyl-4-(phenylazo)- |
| U328 | 95-53-4 | Benzenamine, 2-methyl- |
| U353 | 106-49-0 | Benzenamine, 4-methyl- |
| U158 | 101-14-4 | Benzenamine, 4,4'-methylenebis[2-chloro- |
| U222 | 638-21-5 | Benzenamine, 2-methyl-, hydrochloride |
| U181 | 99-55-8 | Benzenamine, 2-methyl-5-nitro- |
| U019 | 71-43-2 | Benzene (I,T) |
| U039 | 510-15-6 | Benzenoacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester |
| U030 | 101-65-3 | Benzene, 1-bromo-4-phenoxy- |
| U035 | 305-03-3 | Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- |
| U037 | 108-90-7 | Benzene, chloro- |
| U221 | 25378-45-8 | Benzenediamine, ar-methyl- |
| U028 | 117-81-7 | 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester |
| U069 | 84-74-2 | 1,2-Benzenedicarboxylic acid, dibutyl ester |
| U088 | 84-86-2 | 1,2-Benzenedicarboxylic acid, diethyl ester |
| U102 | 131-11-3 | 1,2-Benzenedicarboxylic acid, dimethyl ester |
| U107 | 117-84-0 | 1,2-Benzenedicarboxylic acid, dioctyl ester |
| U070 | 95-50-1 | Benzene, 1,2-dichloro- |
| U071 | 541-73-1 | Benzene, 1,3-dichloro- |
| U072 | 108-46-7 | Benzene, 1,4-dichloro- |
| U060 | 72-54-8 | Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- |
| U017 | 98-87-3 | Benzene, (dichloromethyl)- |
| U223 | 28471-82-5 | Benzene, 1,3-diaocyanatomethyl- (R,T) |
| U239 | 1330-20-7 | Benzene, dimethyl- (I,T) |
| U201 | 108-46-3 | 1,3-Benzenediol |
| U127 | 118-74-1 | Benzene, hexachloro- |
| U058 | 110-82-7 | Benzene, hexahydro- (I) |
| U220 | 108-88-3 | Benzene, methyl- |
| U105 | 121-14-2 | Benzene, 1-methyl-2,4-dinitro- |
| U106 | 606-20-2 | Benzene, 2-methyl-1,3-dinitro- |
| U055 | 98-82-8 | Benzene, (1-methylethyl)- (I) |
| U169 | 98-95-3 | Benzene, nitro- |
| U183 | 608-83-5 | Benzene, pentachloro- |
| U185 | 82-68-8 | Benzene, pentachloronitro- |
| U020 | 98-09-9 | Benzenesulfonic acid chloride (C,R) |
| U020 | 98-09-9 | Benzenesulfonyl chloride (C,R) |
| U207 | 95-84-3 | Benzene, 1,2,4,5-tetrachloro- |
| U061 | 50-29-3 | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- |
| U247 | 72-43-6 | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- |
| U023 | 98-07-7 | Benzene, (trichloromethyl)- |
| U234 | 99-35-4 | Benzene, 1,3,5-trinitro- |
| U021 | 92-87-5 | Benzidine |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| U202 | 181-07-2 | 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts |
| U278 | 22781-23-3 | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate. |
| U384 | 22981-82-8 | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, |
| U203 | 84-69-7 | 1,3-Benzodioxole, 5-(2-propenyl)- |
| U141 | 120-68-1 | 1,3-Benzodioxole, 5-(1-propenyl)- |
| U367 | 1583-38-8 | 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl- |
| U090 | 84-68-8 | 1,3-Benzodioxole, 5-propyl- |
| U094 | 189-65-9 | Benzo[rs]pentaphene |
| U248 | 181-81-2 | 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less |
| U022 | 50-32-8 | Benzo[a]pyrene |
| U197 | 106-51-4 | p-Benzoquinone |
| U023 | 98-07-7 | Benzotrichloride (C,R,T) |
| U085 | 1484-53-5 | 2,2'-Bisoxirane |
| U021 | 92-87-5 | [1,1'-Biphenyl]-4,4'-diamine |
| U073 | 91-94-1 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro- |
| U061 | 118-90-4 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy- |
| U085 | 118-93-7 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl- |
| U225 | 75-25-2 | Bromofom |
| U030 | 101-55-3 | 4-Bromophenyl phenyl ether |
| U128 | 87-88-3 | 1,3-Butadiene, 1,1,2,3,4,4-hexachloro- |
| U172 | 924-16-3 | 1-Butanamine, N-butyl-N-nitroso- |
| U031 | 71-36-3 | 1-Butanol (I) |
| U189 | 78-93-3 | 2-Butanone (I,T) |
| U160 | 1338-23-4 | 2-Butanone, peroxide (R,T) |
| U063 | 4170-30-3 | 2-Butenal |
| U074 | 784-41-0 | 2-Butene, 1,4-dichloro- (I,T) |
| U143 | 303-34-4 | 2-Butanoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutonyl]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]- |
| U031 | 71-36-3 | n-Butyl alcohol (I) |
| U138 | 75-60-5 | Cacodylic acid |
| U032 | 13765-19-0 | Calcium chromate |
| U372 | 10605-21-7 | Carbamic acid, 1H-benzimidazol-2-yl, methyl ester. |
| U271 | 17804-35-2 | Carbamic acid, 1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester. |
| U280 | 101-27-9 | Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester. |
| U238 | 51-79-8 | Carbamic acid, ethyl ester |
| U178 | 615-63-2 | Carbamic acid, methylnitroso-, ethyl ester |
| U373 | 122-42-9 | Carbamic acid, phenyl-, 1-methylethyl ester. |
| U409 | 23564-05-8 | Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester. |
| U087 | 79-44-7 | Carbamic chloride, dimethyl- |
| U389 | 2303-17-5 | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester. |
| U387 | 52888-80-9 | Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester. |
| U114 | 111-64-6 | Carbamothioic acid, 1,2-ethanedithio-, salts & esters |
| U082 | 2303-16-4 | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester |
| U279 | 83-25-2 | Carbaryl. |
| U372 | 10805-21-7 | Carbendazim. |
| U367 | 1583-38-8 | Carbofuran phenol. |
| U215 | 6533-73-9 | Carbonic acid, dithallium(1+) salt |
| U033 | 353-60-4 | Carbonic difluoride |
| U188 | 79-22-1 | Carbonochloridic acid, methyl ester (I,T) |
| U033 | 353-60-4 | Carbon oxyfluoride (R,T) |
| U211 | 58-23-5 | Carbon tetrachloride |
| U034 | 75-87-8 | Chloral |
| U035 | 305-03-3 | Chlorambucil |
| U038 | 57-74-9 | Chloroane, alpha & gamma isomers |
| U028 | 494-03-1 | Chloromaphazin |
| U037 | 108-90-7 | Chlorobenzene |
| U036 | 510-15-8 | Chlorobenzilate |
| U039 | 59-60-7 | p-Chloro-m-cresol |
| U042 | 110-75-8 | 2-Chloroethyl vinyl ether |
| U044 | 87-88-3 | Chloroform |
| U046 | 107-30-2 | Chloromethyl methyl ether |
| U047 | 91-68-7 | beta-Chloronaphthalene |
| U048 | 85-67-8 | o-Chlorophenol |
| U049 | 3165-83-3 | 4-Chloro-o-toluidine, hydrochloride |
| U032 | 13765-19-0 | Chromic acid H ₂ CrO ₄ , calcium salt |
| U060 | 218-01-9 | Chrysene |
| U051 | ..... | Cresote |
| U082 | 1319-77-3 | Cresol (Cresylic acid) |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|--|
| U053 | 4170-30-3 | Crotonaldehyde |
| U055 | 98-82-8 | Cumene (I) |
| U246 | 506-88-3 | Cyanogen bromide (CN)Br |
| U197 | 106-61-4 | 2,5-Cyclohexadiene-1,4-dione |
| U056 | 110-82-7 | Cyclohexane (I) |
| U129 | 58-89-9 | Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)- |
| U057 | 108-84-1 | Cyclohexanone (I) |
| U130 | 77-47-4 | 1,3-Cyclopentadiene, 1,2,3,4,5-hexachloro- |
| U058 | 50-18-0 | Cyclophosphamide |
| U240 | 194-75-7 | 2,4-D, salts & esters |
| U059 | 20830-81-3 | Daunomycin |
| U060 | 72-54-8 | DDD |
| U061 | 50-29-3 | DDT |
| U062 | 2303-16-4 | Diallate |
| U063 | 53-70-3 | Dibenz(a,h)anthracene |
| U064 | 189-65-9 | Dibenz(a,i)pyrene |
| U066 | 96-12-8 | 1,2-Dibromo-3-chloropropane |
| U069 | 84-74-2 | Dibutyl phthalate |
| U070 | 95-60-1 | o-Dichlorobenzene |
| U071 | 541-73-1 | m-Dichlorobenzene |
| U072 | 106-46-7 | p-Dichlorobenzene |
| U073 | 91-84-1 | 3,3'-Dichlorobenzidine |
| U074 | 784-41-0 | 1,4-Dichloro-2-butene (I,T) |
| U075 | 75-71-8 | Dichlorodifluoromethane |
| U078 | 75-35-4 | 1,1-Dichloroethylene |
| U079 | 156-60-5 | 1,2-Dichloroethylene |
| U025 | 111-44-4 | Dichloroethyl ether |
| U027 | 108-60-1 | Dichloroacetyl ether |
| U024 | 111-91-1 | Dichloromethoxy ethane |
| U081 | 120-83-2 | 2,4-Dichlorophenol |
| U082 | 87-88-0 | 2,6-Dichlorophenol |
| U084 | 542-75-6 | 1,3-Dichloropropane |
| U085 | 1484-53-5 | 1,2,3,4-Di epoxybutane (I,T) |
| U108 | 123-91-1 | 1,4-Diethyleneoxide |
| U026 | 117-81-7 | Diethylhexyl phthalate |
| U096 | 5962-26-1 | Diethylene glycol, dicarbamate. |
| U086 | 1815-80-1 | N,N'-Diethylhydrazine |
| U087 | 3288-68-2 | O,O-Diethyl S-methyl dithiophosphate |
| U088 | 84-86-2 | Diethyl phthalate |
| U089 | 56-53-1 | Diethylstilbestrol |
| U090 | 94-58-6 | Dihydroacetone |
| U091 | 119-90-4 | 3,3'-Dimethoxybenzidine |
| U092 | 124-40-3 | Dimethylamine (I) |
| U093 | 60-11-7 | p-Dimethylaminoazobenzene |
| U094 | 57-97-6 | 7,12-Dimethylbenz(a)anthracene |
| U095 | 119-93-7 | 3,3'-Dimethylbenzidine |
| U096 | 80-16-9 | alpha,alpha-Dimethylbenzylhydroperoxide (R) |
| U097 | 79-44-7 | Dimethylcarbamoyl chloride |
| U098 | 57-14-7 | 1,1-Dimethylhydrazine |
| U099 | 540-73-8 | 1,2-Dimethylhydrazine |
| U101 | 105-67-9 | 2,4-Dimethylphenol |
| U102 | 131-11-3 | Dimethyl phthalate |
| U103 | 77-78-1 | Dimethyl sulfate |
| U105 | 121-14-2 | 2,4-Dinitrotoluene |
| U106 | 608-20-2 | 2,6-Dinitrotoluene |
| U107 | 117-84-0 | Di-n-octyl phthalate |
| U108 | 123-91-1 | 1,4-Dioxane |
| U109 | 122-66-7 | 1,2-Diphenylhydrazine |
| U110 | 142-84-7 | Dipropylamine (I) |
| U111 | 621-64-7 | Di-n-propylnitrosamine |
| U041 | 108-89-8 | Epichlorohydrin |
| U001 | 75-07-0 | Ethanal (I) |
| U404 | 121-44-8 | Ethanamine, N,N-diethyl- |
| U174 | 55-18-6 | Ethanamine, N-ethyl-N-nitroso- |
| U155 | 91-80-5 | 1,2-Ethanediamine, N,N-dimethyl-N'-pyridinyl-N'-(2-thienylmethyl)- |
| U087 | 106-83-4 | Ethane, 1,2-dibromo- |
| U076 | 75-34-3 | Ethane, 1,1-dichloro- |
| U077 | 107-06-2 | Ethane, 1,2-dichloro- |
| U131 | 67-72-1 | Ethane, hexachloro- |
| U024 | 111-91-1 | Ethane, 1,1'-(methylenebis(oxy))bis[2-chloro- |
| U117 | 60-29-7 | Ethane, 1,1'-oxybis-(I) |

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|---------------------|------------------------|---|
| U025 | 111-44-4 | Ethane, 1,1'-oxybis[2-chloro- |
| U184 | 76-01-7 | Ethane, pentachloro- |
| U208 | 630-20-6 | Ethane, 1,1,1,2-tetrachloro- |
| U209 | 79-34-6 | Ethane, 1,1,2,2-tetrachloro- |
| U218 | 62-55-5 | Ethanethioamide |
| U225 | 71-55-6 | Ethane, 1,1,1-trichloro- |
| U227 | 79-00-6 | Ethane, 1,1,2-trichloro- |
| U410 | 59599-29-0 | Ethanimidothioic acid, N,N'- [thio]bis[(methylimino)carbonyloxy]]bis-, dimethyl ester |
| U394 | 30558-43-1 | Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester. |
| U359 | 110-80-6 | Ethanol, 2-ethoxy- |
| U173 | 1116-64-7 | Ethanol, 2,2'-(nitrosoimino)bis- |
| U395 | 5952-26-1 | Ethanol, 2,2'-oxybis-, dicarbamate. |
| U004 | 98-86-2 | Ethanone, 1-phenyl- |
| U043 | 75-01-4 | Ethene, chloro- |
| U042 | 110-75-8 | Ethene, (2-chloroethoxy)- |
| U078 | 75-35-4 | Ethene, 1,1-dichloro- |
| U079 | 158-60-6 | Ethene, 1,2-dichloro-, (E)- |
| U210 | 127-18-4 | Ethene, tetrachloro- |
| U226 | 79-01-6 | Ethene, trichloro- |
| U112 | 141-78-6 | Ethyl acetate (I) |
| U113 | 140-89-6 | Ethyl acrylate (I) |
| U236 | 51-79-6 | Ethyl carbamate (urethane) |
| U117 | 80-29-7 | Ethyl ether (I) |
| U114 | 111-64-6 | Ethylenebis[thiocarbamic acid, salts & esters |
| U067 | 106-93-4 | Ethylene dibromide |
| U077 | 107-06-2 | Ethylene dichloride |
| U359 | 110-80-6 | Ethylene glycol monoethyl ether |
| U115 | 75-21-8 | Ethylene oxide (I,T) |
| U116 | 98-45-7 | Ethylenethiourea |
| U076 | 75-34-3 | Ethylidene dichloride |
| U118 | 97-63-2 | Ethyl methacrylate |
| U119 | 62-60-0 | Ethyl methanesulfonate |
| U120 | 206-44-0 | Fluoranthene |
| U122 | 50-00-0 | Formaldehyde |
| U123 | 64-18-6 | Formic acid (C,T) |
| U124 | 110-00-9 | Furan (I) |
| U125 | 98-01-1 | 2-Furancarboxaldehyde (I) |
| U147 | 108-31-6 | 2,5-Furandione |
| U215 | 109-99-9 | Furan, tetrahydro-(I) |
| U125 | 98-01-1 | Furfural (I) |
| U124 | 110-00-9 | Furfuran (I) |
| U206 | 18883-66-4 | Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D- |
| U206 | 18883-66-4 | D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]- |
| U126 | 765-34-4 | Glycidyaldehyde |
| U163 | 70-25-7 | Guanidins, N-methyl-N-nitro-N-nitroso- |
| U127 | 118-74-1 | Hexachlorobenzene |
| U126 | 87-68-3 | Hexachlorobutadiene |
| U130 | 77-47-4 | Hexachlorocyclopentadiene |
| U131 | 67-72-1 | Hexachloroethane |
| U132 | 70-30-4 | Hexachlorophene |
| U243 | 1888-71-7 | Hexachloropropene |
| U133 | 302-01-2 | Hydrazine (R,T) |
| U086 | 1615-80-1 | Hydrazine, 1,2-diethyl- |
| U086 | 57-14-7 | Hydrazine, 1,1-dimethyl- |
| U086 | 540-73-8 | Hydrazine, 1,2-dimethyl- |
| U109 | 122-66-7 | Hydrazine, 1,2-diphenyl- |
| U134 | 7664-39-3 | Hydrofluoric acid (C,T) |
| U134 | 7664-39-3 | Hydrogen fluoride (C,T) |
| U135 | 7783-06-4 | Hydrogen sulfide |
| U135 | 7783-06-4 | Hydrogen sulfide H ₂ S |
| U086 | 80-15-9 | Hydroperoxide, 1-methyl-1-phenylethyl- (R) |
| U116 | 98-45-7 | 2-Imidazolidinethione |
| U137 | 193-39-5 | Indano[1,2,3-cd]pyrene |
| U190 | 85-44-9 | 1,3-Isobenzofurandione |
| U140 | 78-83-1 | Isobutyl alcohol (I,T) |
| U141 | 120-58-1 | Isosafrole |
| U142 | 143-50-0 | Kepone |
| U143 | 303-34-4 | Lasiocarpine |
| U144 | 301-04-2 | Lead acetate |
| U146 | 1335-32-6 | Lead, bis(acetato-O)tetrahydroxytri- |
| U145 | 7446-27-7 | Lead phosphate |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|--|
| U146 | 1335-32-8 | Lead subacetate |
| U129 | 58-89-9 | Lindane |
| U163 | 70-25-7 | MNNG |
| U147 | 108-31-6 | Maleic anhydride |
| U148 | 123-33-1 | Maleic hydrazide |
| U149 | 109-77-3 | Malononitrile |
| U150 | 148-82-3 | Melphalan |
| U151 | 7439-97-6 | Mercury |
| U152 | 126-99-7 | Methacrylonitrile (I, T) |
| U082 | 124-40-3 | Methanamine, N-methyl- (I) |
| U029 | 74-83-9 | Methane, bromo- |
| U045 | 74-87-3 | Methane, chloro- (I, T) |
| U048 | 107-30-2 | Methane, chloromethoxy- |
| U068 | 74-85-3 | Methane, dibromo- |
| U060 | 75-09-2 | Methane, dichloro- |
| U075 | 75-71-8 | Methane, dichlorodifluoro- |
| U138 | 74-88-4 | Methane, iodo- |
| U119 | 62-50-0 | Methanesulfonic acid, ethyl ester |
| U211 | 56-23-5 | Methane, tetrachloro- |
| U153 | 74-93-1 | Methanethiol (I, T) |
| U225 | 75-25-2 | Methane, tribromo- |
| U044 | 87-85-3 | Methane, trichloro- |
| U121 | 75-89-4 | Methane, trichlorofluoro- |
| U036 | 57-74-9 | 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- |
| U154 | 67-58-1 | Methanol (I) |
| U155 | 91-80-5 | Methapyrene |
| U142 | 143-60-0 | 1,3,4-Methano-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro- |
| U247 | 72-43-5 | Methoxychlor |
| U154 | 67-58-1 | Methyl alcohol (I) |
| U029 | 74-83-9 | Methyl bromide |
| U186 | 504-60-9 | 1-Methylbutadiene (I) |
| U045 | 74-87-3 | Methyl chloride (I, T) |
| U158 | 79-22-1 | Methyl chloroacetate (I, T) |
| U228 | 71-85-6 | Methyl chloroform |
| U157 | 59-49-5 | 3-Methylcholanthrene |
| U158 | 101-14-4 | 4,4'-Methylenbis(2-chloroaniline) |
| U068 | 74-85-3 | Methylene bromide |
| U060 | 75-09-2 | Methylene chloride |
| U159 | 78-93-3 | Methyl ethyl ketone (MEK) (I, T) |
| U100 | 1338-23-4 | Methyl ethyl ketone peroxide (R, T) |
| U138 | 74-88-4 | Methyl iodide |
| U161 | 108-10-1 | Methyl isobutyl ketone (I) |
| U162 | 80-62-8 | Methyl methacrylate (I, T) |
| U161 | 108-10-1 | 4-Methyl-2-pentanone (I) |
| U164 | 58-04-2 | Methythiouracil |
| U010 | 50-07-7 | Mitomycin C |
| U059 | 20830-81-3 | 5,12-Naphthacenedione, 6-acetyl-10-((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)- |
| U167 | 134-32-7 | 1-Naphthalenamine |
| U168 | 91-59-8 | 2-Naphthalenamine |
| U026 | 494-03-1 | Naphthalenamine, N,N'-bis(2-chloroethyl)- |
| U165 | 91-20-3 | Naphthalene |
| U047 | 91-58-7 | Naphthalene, 2-chloro- |
| U166 | 130-15-4 | 1,4-Naphthalenedione |
| U236 | 72-57-1 | 2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt |
| U279 | 63-25-2 | 1-Naphthalenol, methylcarbamate. |
| U166 | 130-15-4 | 1,4-Naphthoquinone |
| U167 | 134-32-7 | alpha-Naphthylamine |
| U168 | 91-59-8 | beta-Naphthylamine |
| U217 | 10102-45-1 | Nitric acid, thallium(1+) salt |
| U169 | 99-85-3 | Nitrobenzene (I, T) |
| U170 | 100-02-7 | p-Nitrophenol |
| U171 | 79-48-9 | 2-Nitropropane (I, T) |
| U172 | 924-16-3 | N-Nitrosodi-n-butylamine |
| U173 | 1118-54-7 | N-Nitrosodiethanolamine |
| U174 | 55-18-5 | N-Nitrosodiethylamine |
| U176 | 759-73-9 | N-Nitroso-N-ethylurea |
| U177 | 684-93-5 | N-Nitroso-N-methylurea |
| U178 | 615-53-2 | N-Nitroso-N-methylurethane |
| U179 | 100-75-4 | N-Nitrosopiperidine |
| U180 | 930-55-2 | N-Nitrosopyrrolidine |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|--|
| U181 | 99-65-8 | 5-Nitro-o-toluidine |
| U193 | 1120-71-4 | 1,2-Oxathiolane, 2,2-dioxide |
| U058 | 50-18-0 | 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide |
| U115 | 75-21-8 | Oxirane (I,T) |
| U126 | 765-34-4 | Oxiranecarboxyaldehyde |
| U041 | 106-89-8 | Oxirane, (chloromethyl)- |
| 2 | 123-63-7 | Paraldehyde |
| U183 | 808-83-5 | Pentachlorobenzene |
| U184 | 76-01-7 | Pentachloroethane |
| U185 | 82-68-8 | Pentachloronitrobenzene (PCNB) |
| See | 87-86-5 | Pentachlorophenol |
| F027 | | |
| U181 | 108-10-1 | Pentanol, 4-methyl- |
| U186 | 504-60-9 | 1,3-Pentadiene (I) |
| U187 | 62-44-2 | Phenacetin |
| U188 | 108-95-2 | Phenol |
| U048 | 95-67-8 | Phenol, 2-chloro- |
| U039 | 58-60-7 | Phenol, 4-chloro-3-methyl- |
| U061 | 120-83-2 | Phenol, 2,4-dichloro- |
| U082 | 87-66-0 | Phenol, 2,6-dichloro- |
| U089 | 56-63-1 | Phenol, 4,4'-(1,2-diethyl-1,2-ethenediy)bis-, (E)- |
| U101 | 105-67-8 | Phenol, 2,4-dimethyl- |
| U082 | 1318-77-3 | Phenol, methyl- |
| U132 | 70-30-4 | Phenol, 2,2'-methylenebis(3,4,6-trichloro- |
| U411 | 114-26-1 | Phenol, 2-(1-methylethoxy)-, methylcarbamate. |
| U170 | 100-02-7 | Phenol, 4-nitro- |
| See | 87-86-5 | Phenol, pentachloro- |
| F027 | | |
| See | 58-90-2 | Phenol, 2,3,4,6-tetrachloro- |
| F027 | | |
| See | 96-85-4 | Phenol, 2,4,5-trichloro- |
| F027 | | |
| See | 88-06-2 | Phenol, 2,4,6-trichloro- |
| F027 | | |
| U150 | 148-82-3 | L-Phenylalanine, 4-[bis(2-chloroethyl)amino]- |
| U146 | 7446-27-7 | Phosphoric acid, lead(2+) salt (2:3) |
| U087 | 3288-68-2 | Phosphorodithioic acid, O,O-diethyl S-methyl ester |
| U189 | 1314-80-3 | Phosphorus sulfide (R) |
| U190 | 85-44-9 | Phthalic anhydride |
| U191 | 109-06-8 | 2-Picoline |
| U179 | 100-75-4 | Piperidine, 1-nitroso- |
| U182 | 23950-68-5 | Pronamide |
| U194 | 107-10-8 | 1-Propanamine (I,T) |
| U111 | 621-64-7 | 1-Propanamine, N-nitroso-N-propyl- |
| U110 | 142-84-7 | 1-Propanamine, N-propyl- (I) |
| U088 | 96-12-8 | Propene, 1,2-dibromo-3-chloro- |
| U083 | 78-87-5 | Propene, 1,2-dichloro- |
| U149 | 109-77-3 | Propenedinitrile |
| U171 | 79-46-8 | Propene, 2-nitro- (I,T) |
| U027 | 108-60-1 | Propene, 2,2'-oxybis(2-chloro- |
| U193 | 1120-71-4 | 1,3-Propene sulfone |
| See | 93-72-1 | Propenoic acid, 2-(2,4,5-trichlorophenoxy)- |
| F027 | | |
| U235 | 126-72-7 | 1-Propanol, 2,3-dibromo-, phosphate (3:1) |
| U140 | 78-63-1 | 1-Propanol, 2-methyl- (I,T) |
| U002 | 67-64-1 | 2-Propanone (I) |
| U007 | 79-06-1 | 2-Propanamide |
| U084 | 542-75-6 | 1-Propene, 1,3-dichloro- |
| U243 | 1888-71-7 | 1-Propene, 1,1,2,3,3,3-hexachloro- |
| U006 | 107-13-1 | 2-Propenenitrile |
| U182 | 126-86-7 | 2-Propenenitrile, 2-methyl- (I,T) |
| U008 | 79-10-7 | 2-Propenoic acid (I) |
| U113 | 140-88-5 | 2-Propenoic acid, ethyl ester (I) |
| U118 | 97-63-2 | 2-Propenoic acid, 2-methyl-, ethyl ester |
| U182 | 80-82-6 | 2-Propenoic acid, 2-methyl-, methyl ester (I,T) |
| U373 | 122-42-8 | Propham. |
| U411 | 114-26-1 | Propoxur. |
| U087 | 52888-80-9 | Prosulfocarb. |
| U194 | 107-10-8 | n-Propylamine (I,T) |
| U083 | 78-87-5 | Propylene dichloride |
| U148 | 123-33-1 | 3,6-Pyridazinedione, 1,2-dihydro- |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---------------------|------------------------|---|
| U198 | 110-86-1 | Pyridine |
| U191 | 109-06-8 | Pyridine, 2-methyl- |
| U237 | 66-75-1 | 2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]- |
| U184 | 56-04-2 | 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo- |
| U180 | 930-65-2 | Pyrrolidine, 1-nitroso- |
| U200 | 50-65-5 | Reserpine |
| U201 | 106-46-3 | Resorcinol |
| U202 | 181-07-2 | Saccharin, & salts |
| U203 | 94-69-7 | Safrole |
| U204 | 7783-00-8 | Selenious acid |
| U204 | 7783-00-8 | Selenium dioxide |
| U205 | 7488-66-4 | Selenium sulfide |
| U205 | 7488-66-4 | Selenium sulfide SeS ₂ (R,T) |
| U015 | 115-02-6 | L-Serine, diazoacetate (ester) |
| See | 93-72-1 | Silvex (2,4,5-TP) |
| F027 | | |
| U206 | 18883-66-4 | Streptozotocin |
| U103 | 77-78-1 | Sulfuric acid, dimethyl ester |
| U189 | 1314-80-3 | Sulfur phosphide (R) |
| See | 93-76-6 | 2,4,5-T |
| F027 | | |
| U207 | 95-84-3 | 1,2,4,5-Tetrachlorobenzene |
| U208 | 630-20-6 | 1,1,1,2-Tetrachloroethane |
| U209 | 79-34-6 | 1,1,2,2-Tetrachloroethane |
| U210 | 127-18-4 | Tetrachloroethylene |
| See | 58-80-2 | 2,3,4,6-Tetrachlorophenol |
| F027 | | |
| U213 | 109-99-9 | Tetrahydrofuran (I) |
| U214 | 583-69-8 | Thallium(I) acetate |
| U215 | 6533-73-9 | Thallium(I) carbonate |
| U216 | 7791-12-0 | Thallium(I) chloride |
| U216 | 7791-12-0 | Thallium chloride TlCl |
| U217 | 10102-45-1 | Thallium(I) nitrate |
| U218 | 62-56-6 | Thioacetamide |
| U410 | 59089-28-0 | Thiodicarb. |
| U153 | 74-83-1 | Thiomethanol (I,T) |
| U244 | 137-26-8 | Thioperoxydicarbonic diamide ((H ₂ N)C(S)) ₂ S ₂ , tetramethyl- |
| U409 | 23584-05-8 | Thiophanate-methyl. |
| U219 | 62-56-6 | Thiourea |
| U244 | 137-26-8 | Thiram |
| U220 | 109-88-3 | Toluene |
| U221 | 25378-45-8 | Toluenediamine |
| U223 | 28471-62-6 | Toluene diisocyanate (R,T) |
| U328 | 95-63-4 | o-Toluidine |
| U353 | 106-49-0 | p-Toluidine |
| U222 | 636-21-6 | o-Toluidine hydrochloride |
| U389 | 2303-17-5 | Triallate. |
| U011 | 61-82-6 | 1H-1,2,4-Triazol-3-amine |
| U408 | 118-79-6 | 2,4,6-Tribromophenol. |
| U227 | 79-00-6 | 1,1,2-Trichloroethane |
| U228 | 79-01-6 | Trichloroethylene |
| U121 | 75-69-4 | Trichloromonofluoromethane |
| See | 95-85-4 | 2,4,5-Trichlorophenol |
| F027 | | |
| See | 88-08-2 | 2,4,6-Trichlorophenol |
| F027 | | |
| U404 | 121-44-8 | Triethylamine. |
| U234 | 99-85-4 | 1,3,5-Trinitrobenzene (R,T) |
| U182 | 123-63-7 | 1,3,5-Trioxane, 2,4,6-trimethyl- |
| U235 | 128-72-7 | Tris(2,3-dibromopropyl) phosphate |
| U236 | 72-67-1 | Trypan blue |
| U237 | 66-75-1 | Uracil mustard |
| U176 | 759-73-9 | Urea, N-ethyl-N-nitroso- |
| U177 | 684-83-6 | Urea, N-methyl-N-nitroso- |
| U043 | 75-01-4 | Vinyl chloride |
| U248 | 181-81-2 | Warfarin, & salts, when present at concentrations of 0.3% or less |
| U239 | 1330-20-7 | Xylene (I) |
| U200 | 50-65-6 | Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)- |
| U249 | 1314-84-7 | Zinc phosphide Zn ₃ P ₂ , when present at concentrations of 10% or less |

¹ CAS Number given for parent compound only.

Environmental Protection Agency

§ 261.35

[45 FR 78529, 78541, Nov. 25, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.33, see the List of CFR Sections Affected in the Finding Aids section of this volume.

EFFECTIVE DATE NOTE: At 63 FR 24625, May 4, 1998, in § 261.33, paragraph (f), table was amended by adding, in alphanumeric order, the substance U408, effective Nov. 4, 1998.

§ 261.35 Deletion of certain hazardous waste codes following equipment cleaning and replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of paragraphs (b) and (c) of this section. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(1) Generators shall do one of the following:

(i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with this section;

(ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with this section;

or
(iii) Document cleaning and replacement in accordance with this section, carried out after termination of use of chlorophenolic preservations.

(2) **Cleaning Requirements.**

(i) Prepare and sign a written equipment cleaning plan that describes:

(A) The equipment to be cleaned;

(B) How the equipment will be cleaned;

(C) The solvent to be used in cleaning;

(D) How solvent rinses will be tested; and

(E) How cleaning residues will be disposed.

(ii) Equipment must be cleaned as follows:

(A) Remove all visible residues from process equipment;

(B) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(iii) **Analytical requirements.**

(A) Rinses must be tested in accordance with SW-846, Method 8290.

(B) "Not detected" means at or below the lower method calibration limit (MCL) in Method 8290, Table 1.

(iv) The generator must manage all residues from the cleaning process as F032 waste.

(3) **Replacement requirements.**

(i) Prepare and sign a written equipment replacement plan that describes:

(A) The equipment to be replaced;

(B) How the equipment will be replaced; and

(C) How the equipment will be disposed.

(ii) The generator must manage the discarded equipment as F032 waste.

(4) **Documentation requirements.**

(i) Document that previous equipment cleaning and/or replacement was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.

(c) The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

(1) The name and address of the facility;

(2) Formulations previously used and the date on which their use ceased in each process at the plant;

(3) Formulations currently used in each process at the plant;

(4) The equipment cleaning or replacement plan;

(5) The name and address of any persons who conducted the cleaning and replacement;

(6) The dates on which cleaning and replacement were accomplished;

(7) The dates of sampling and testing;

(8) A description of the sample handling and preparation techniques, including techniques used for extraction,

containerization, preservation, and chain-of-custody of the samples;

(9) A description of the tests performed, the date the tests were performed, and the results of the tests;

(10) The name and model numbers of the instrument(s) used in performing the tests;

(11) QA/QC documentation; and

(12) The following statement signed by the generator or his authorized representative:

I certify under penalty of law that all process equipment required to be cleaned or replaced under 40 CFR 261.35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

[55 FR 50482, Dec. 6, 1990, as amended at 56 FR 30195, July 1, 1991]

§ 261.38 Comparable/Syngas Fuel Exclusion.

Wastes that meet the following comparable/syngas fuel requirements are not solid wastes:

(a) *Comparable fuel specifications.*—(1) *Physical specifications.*—(1) *Heating value.* The heating value must exceed 5,000 BTU/lbs. (11,500 J/g).

(1) *Viscosity.* The viscosity must not exceed: 50 cs, as-fired.

(2) *Constituent specifications.* For compounds listed in table 1 to this section the specification levels and, where non-detect is the specification, minimum required detection limits are: (see Table 1).

(b) *Synthesis gas fuel specification.*—Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must:

(1) Have a minimum Btu value of 100 Btu/Scf;

(2) Contain less than 1 ppmv of total halogen;

(3) Contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N₂);

(4) Contain less than 200 ppmv of hydrogen sulfide; and

(5) Contain less than 1 ppmv of each hazardous constituent in the target list of Appendix VIII constituents of this part.

TABLE 1 TO § 261.38: DETECTION AND DETECTION LIMIT VALUES FOR COMPARABLE FUEL SPECIFICATION

| Chemical name | CAS No. | Concentration limit (mg/kg at 10,000 BTU/lb) | Minimum required detection limit (mg/kg) |
|--|-----------|---|--|
| Total Nitrogen as N | na | 4900 ..... | ..... |
| Total Halogens as Cl | na | 540 ..... | ..... |
| Total Organic Halogens as Cl | na | 25 or individual halogenated organics listed below. | ..... |
| Polychlorinated biphenyls, total [Aroclors, total] * | 1336-36-3 | Non-detect | 1.4 |
| Cyanide, total | 57-12-5 | Non-detect | 1.0 |
| Metals: | | | |
| Antimony, total | 7440-36-0 | 7.9 ..... | ..... |
| Arsenic, total | 7440-38-2 | 0.23 ..... | ..... |
| Barium, total | 7440-39-3 | 23 ..... | ..... |
| Beryllium, total | 7440-41-7 | 1.2 ..... | ..... |
| Cadmium, total | 7440-43-9 | 1.2 ..... | ..... |
| Chromium, total | 7440-47-3 | 2.3 ..... | ..... |
| Cobalt | 7440-48-4 | 4.8 ..... | ..... |
| Lead, total | 7439-92-1 | 31 ..... | ..... |
| Manganese | 7439-96-6 | 1.2 ..... | ..... |
| Mercury, total | 7439-97-6 | 0.24 ..... | ..... |
| Nickel, total | 7440-02-0 | 58 ..... | ..... |
| Selenium, total | 7782-49-2 | 0.15 ..... | ..... |
| Silver, total | 7440-22-4 | 2.3 ..... | ..... |
| Thallium, total | 7440-28-0 | 23 ..... | ..... |
| Hydrocarbons: | | | |
| Benzo(a)anthracene | 56-55-3 | 1100 ..... | ..... |
| Benzene | 71-43-2 | 4100 ..... | ..... |
| Benzo(b)fluoranthene | 205-99-2 | 960 ..... | ..... |
| Benzo(k)fluoranthene | 207-08-9 | 1900 ..... | ..... |
| Benzo(a)pyrene | 50-32-8 | 960 ..... | ..... |
| Chrysene | 218-01-9 | 1400 ..... | ..... |

TABLE 1 TO § 261.38: DETECTION AND DETECTION LIMIT VALUES FOR COMPARABLE FUEL SPECIFICATION—Continued

| Chemical name | CAS No. | Concentration limit (mg/kg at 10,000 BTU/lb) | Minimum required detection limit (mg/kg) |
|---|-----------|--|--|
| Dibenz[a,h]anthracene | 53-70-3 | 980 | |
| 7,12-Dimethylbenz[a]anthracene | 57-97-6 | 1900 | |
| Fluoranthene | 208-44-0 | 1900 | |
| Indeno[1,2,3-cd]pyrene | 193-39-6 | 980 | |
| 3-Methylcholanthrene | 56-49-6 | 1900 | |
| Naphthalene | 91-20-3 | 3200 | |
| Toluene | 108-88-3 | 38000 | |
| Oxyoles: | | | |
| Acetophenone | 96-86-2 | 1900 | |
| Acrolein | 107-02-8 | 37 | |
| Allyl alcohol | 107-18-6 | 30 | |
| Bis(2-ethylhexyl)phthalate [Di-2-ethylhexyl phthalate] | 117-81-7 | 1900 | |
| Butyl benzyl phthalate | 85-88-7 | 1900 | |
| o-Cresol [2-Methyl phenol] | 95-48-7 | 220 | |
| m-Cresol [3-Methyl phenol] | 108-39-4 | 220 | |
| p-Cresol [4-Methyl phenol] | 108-44-6 | 220 | |
| Di-n-butyl phthalate | 84-74-2 | 1900 | |
| Diethyl phthalate | 84-66-2 | 1900 | |
| 2,4-Dimethylphenol | 105-67-8 | 1900 | |
| Dimethyl phthalate | 131-11-3 | 1900 | |
| Di-n-octyl phthalate | 117-84-0 | 980 | |
| Endothall | 145-73-3 | 100 | |
| Ethyl methacrylate | 97-83-2 | 37 | |
| 2-Ethoxyethanol [Ethylene glycol monoethyl ether] | 110-80-5 | 100 | |
| Isobutyl alcohol | 78-83-1 | 37 | |
| Isocetole | 120-58-1 | 1900 | |
| Methyl ethyl ketone [2-Butanone] | 78-93-3 | 37 | |
| Methyl methacrylate | 80-62-6 | 37 | |
| 1,4-Naphthoquinone | 130-15-4 | 1900 | |
| Phenol | 108-85-2 | 1900 | |
| Propargyl alcohol [2-Propyn-1-ol] | 107-19-7 | 30 | |
| Selrole | 94-59-7 | 1900 | |
| Sulfated Organics: | | | |
| Carbon disulfide | 75-15-0 | Non-detect | 37 |
| Disulfoton | 298-04-4 | Non-detect | 1900 |
| Ethyl methanesulfonate | 62-50-0 | Non-detect | 1900 |
| Methyl methanesulfonate | 66-27-3 | Non-detect | 1900 |
| Phorate | 298-02-2 | Non-detect | 1900 |
| 1,3-Propane sulfone | 1120-71-4 | Non-detect | 100 |
| Tetraethylthiopyrophosphate [Sulfotep] | 3689-24-6 | Non-detect | 1900 |
| Thiophenol [Benzenethiol] | 108-98-6 | Non-detect | 30 |
| O,O,O-Triethyl phosphorothioate | 128-68-1 | Non-detect | 1900 |
| Nitrogenated Organics: | | | |
| Acetonitrile [Methyl cyanide] | 75-05-8 | Non-detect | 37 |
| 2-Acetylaminofluorene [2-AAF] | 53-86-3 | Non-detect | 1900 |
| Acrylonitrile | 107-13-1 | Non-detect | 37 |
| 4-Aminobiphenyl | 92-87-1 | Non-detect | 1900 |
| 4-Aminopyridine | 504-24-6 | Non-detect | 100 |
| Aniline | 62-53-3 | Non-detect | 1900 |
| Benzidine | 92-87-5 | Non-detect | 1900 |
| Dibenz[a,h]acridine | 224-42-0 | Non-detect | 1900 |
| O,O-Diethyl O-pyrazinyl phosphoro-thioate [Thionazin] | 297-97-2 | Non-detect | 1900 |
| Dimethoate | 60-51-5 | Non-detect | 1900 |
| p-(Dimethylamino)azobenzene [4-Dimethylaminoazobenzene] | 60-11-7 | Non-detect | 1900 |
| 3,3-Dimethylbenzidine | 119-93-7 | Non-detect | 1900 |
| c,s-Dimethylphenethylamine | 122-09-8 | Non-detect | 1900 |
| 3,3-Dimethoxybenzidine | 119-90-4 | Non-detect | 100 |
| 1,3-Dinitrobenzene [m-Dinitrobenzene] | 99-65-0 | Non-detect | 1900 |
| 4,6-Dinitro-o-cresol | 534-62-1 | Non-detect | 1900 |
| 2,4-Dinitrophenol | 51-28-5 | Non-detect | 1900 |
| 2,4-Dinitrotoluene | 121-14-2 | Non-detect | 1900 |
| 2,6-Dinitrotoluene | 608-20-2 | Non-detect | 1900 |
| Dinoseb [2-sec-Butyl-4,6-dinitrophenol] | 88-85-7 | Non-detect | 1900 |
| Diphenylamine | 122-39-4 | Non-detect | 1900 |
| Ethyl carbamate [Urethane] | 51-79-6 | Non-detect | 100 |
| Ethylenethiourea [2-Imidazolidinethione] | 98-45-7 | Non-detect | 110 |
| Famphur | 52-85-7 | Non-detect | 1900 |
| Methacrylonitrile | 128-68-7 | Non-detect | 37 |

TABLE 1 TO § 261.38: DETECTION AND DETECTION LIMIT VALUES FOR COMPARABLE FUEL SPECIFICATION—Continued

| Chemical name | CAS No. | Concentration limit (mg/kg at 10,000 BTU/b) | Minimum required detection limit (mg/kg) |
|---|------------|---|--|
| Methapyriene | 91-80-6 | Non-detect | 1900 |
| Methomyl | 16752-77-5 | Non-detect | 57 |
| 2-Methylacetonitrile (Acetone cyanohydrin) | 75-86-6 | Non-detect | 100 |
| Methyl parathion | 298-00-0 | Non-detect | 1900 |
| MNNG (N-Methyl-N-nitroso-N'-nitroguanidine) | 70-25-7 | Non-detect | 110 |
| 1-Naphthylamine, (α-Naphthylamine) | 134-32-7 | Non-detect | 1900 |
| 2-Naphthylamine, (β-Naphthylamine) | 91-59-8 | Non-detect | 1900 |
| Nicotine | 54-11-6 | Non-detect | 100 |
| 4-Nitroaniline, (p-Nitroaniline) | 100-01-6 | Non-detect | 1900 |
| Nitrobenzene | 98-95-3 | Non-detect | 1900 |
| p-Nitrophenol, (p-Nitrophenol) | 100-02-7 | Non-detect | 1900 |
| 5-Nitro-o-toluidine | 99-55-8 | Non-detect | 1900 |
| N-Nitrosodi-n-butylamine | 924-18-3 | Non-detect | 1900 |
| N-Nitrosodiethylamine | 55-18-6 | Non-detect | 1900 |
| N-Nitrosodiphenylamine, (Diphenylnitrosamine) | 86-30-8 | Non-detect | 1900 |
| N-Nitroso-N-methylethylamine | 10595-95-8 | Non-detect | 1900 |
| N-Nitrosomorpholine | 59-89-2 | Non-detect | 1900 |
| N-Nitrosopiperidine | 100-75-4 | Non-detect | 1900 |
| N-Nitrosopyrrolidine | 930-55-2 | Non-detect | 1900 |
| 2-Nitropropane | 79-46-9 | Non-detect | 30 |
| Parathion | 56-38-2 | Non-detect | 1900 |
| Phenacetin | 62-44-2 | Non-detect | 1900 |
| 1,4-Phenylenediamine, (p-Phenylenediamine) | 106-60-3 | Non-detect | 1900 |
| N-Phenylthiourea | 103-85-5 | Non-detect | 57 |
| 2-Picoline (alpha-Picoline) | 109-08-8 | Non-detect | 1900 |
| Propylthiuracil (β-Propyl-2-thiouracil) | 51-62-5 | Non-detect | 100 |
| Pyridine | 110-86-1 | Non-detect | 1900 |
| Strychnine | 57-24-9 | Non-detect | 100 |
| Thioacetamide | 62-55-5 | Non-detect | 57 |
| Thiofanox | 39190-18-4 | Non-detect | 100 |
| Thiourea | 62-58-8 | Non-detect | 57 |
| Toluene-2,4-diamine [2,4-Diaminotoluene] | 95-80-7 | Non-detect | 57 |
| Toluene-2,6-diamine [2,6-Diaminotoluene] | 823-40-6 | Non-detect | 57 |
| o-Toluidine | 95-63-4 | Non-detect | 2200 |
| p-Toluidine | 108-49-0 | Non-detect | 100 |
| 1,3,5-Trinitrobenzene, (sym-Trinitrobenzene) | 99-35-4 | Non-detect | 2000 |
| Halogenated Organics: | | | |
| Alkyl chloride | 107-05-1 | Non-detect | 37 |
| Aramite | 104-67-8 | Non-detect | 1900 |
| Benzal chloride (Dichloromethyl benzene) | 98-87-3 | Non-detect | 100 |
| Benzyl chloride | 100-44-77 | Non-detect | 100 |
| Bis(2-chloroethyl)ether (Dichloroethyl ether) | 111-44-4 | Non-detect | 1900 |
| Bromoform (Tribromomethane) | 75-25-2 | Non-detect | 37 |
| Bromomethane (Methyl bromide) | 74-83-9 | Non-detect | 37 |
| 4-Bromophenyl phenyl ether (p-Bromo diphenyl ether) | 101-55-3 | Non-detect | 1900 |
| Carbon tetrachloride | 56-23-5 | Non-detect | 37 |
| Chlordane | 57-74-9 | Non-detect | 14 |
| p-Chloroaniline | 106-47-8 | Non-detect | 1900 |
| Chlorobenzene | 108-90-7 | Non-detect | 37 |
| Chlorobenzilate | 510-15-8 | Non-detect | 1900 |
| p-Chloro-m-cresol | 59-50-7 | Non-detect | 1900 |
| 2-Chloroethyl vinyl ether | 110-75-8 | Non-detect | 37 |
| Chloroform | 67-66-3 | Non-detect | 37 |
| Chloromethane (Methyl chloride) | 74-87-3 | Non-detect | 37 |
| 2-Chlorophthalene (beta-Chlorophthalene) | 91-58-7 | Non-detect | 1900 |
| 2-Chlorophenol (o-Chlorophenol) | 95-57-8 | Non-detect | 1900 |
| Chloroprene (2-Chloro-1,3-butadiene) | 1126-89-8 | Non-detect | 37 |
| 2,4-D (2,4-Dichlorophenoxyacetic acid) | 94-75-7 | Non-detect | 7.0 |
| Diallate | 2303-16-4 | Non-detect | 1900 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | Non-detect | 37 |
| 1,2-Dichlorobenzene (o-Dichlorobenzene) | 95-50-1 | Non-detect | 1900 |
| 1,3-Dichlorobenzene (m-Dichlorobenzene) | 541-73-1 | Non-detect | 1900 |
| 1,4-Dichlorobenzene (p-Dichlorobenzene) | 106-46-7 | Non-detect | 1900 |
| 3,3'-Dichlorobenzidine | 91-84-1 | Non-detect | 1900 |
| Dichlorodifluoromethane (CFC-12) | 75-71-8 | Non-detect | 37 |
| 1,2-Dichloroethane (Ethylene dichloride) | 107-06-2 | Non-detect | 37 |
| 1,1-Dichloroethylene (Vinylidene chloride) | 75-35-4 | Non-detect | 37 |
| Dichloromethoxy ethane (Bis(2-chloroethoxy)methane) | 111-91-1 | Non-detect | 1900 |

TABLE 1 TO §261.38: DETECTION AND DETECTION LIMIT VALUES FOR COMPARABLE FUEL SPECIFICATION—Continued

| Chemical name | CAS No. | Concentration limit (mg/kg at 10,000 BTU/b) | Minimum required detection limit (mg/kg) |
|---|------------|---|--|
| 2,4-Dichlorophenol | 120-83-2 | Non-detect | 1900 |
| 2,6-Dichlorophenol | 87-85-0 | Non-detect | 1900 |
| 1,2-Dichloropropane (Propylene dichloride) | 78-87-5 | Non-detect | 37 |
| cis-1,3-Dichloropropylene | 10081-01-5 | Non-detect | 37 |
| trans-1,3-Dichloropropylene | 10081-02-6 | Non-detect | 37 |
| 1,3-Dichloro-2-propanol | 98-23-1 | Non-detect | 30 |
| Endosulfan I | 959-08-8 | Non-detect | 1.4 |
| Endosulfan II | 33213-65-9 | Non-detect | 1.4 |
| Endrin | 72-20-8 | Non-detect | 1.4 |
| Endrin aldehyde | 7421-83-4 | Non-detect | 1.4 |
| Endrin Ketone | 53494-70-5 | Non-detect | 1.4 |
| Epichlorohydrin [1-Chloro-2,3-epoxy propane] | 108-89-8 | Non-detect | 30 |
| Ethylene dichloride (1,1-Dichloroethane) | 75-34-3 | Non-detect | 37 |
| 2-Fluoroacetamide | 640-19-7 | Non-detect | 100 |
| Hepachlor | 78-44-8 | Non-detect | 1.4 |
| Hepachlor epoxide | 1024-57-3 | Non-detect | 2.8 |
| Hexachlorobenzene | 118-74-1 | Non-detect | 1900 |
| Hexachloro-1,3-butadiene (Hexachlorobutadiene) | 87-88-3 | Non-detect | 1900 |
| Hexachlorocyclopentadiene | 77-47-4 | Non-detect | 1900 |
| Hexachloroethane | 87-72-1 | Non-detect | 1900 |
| Hexachlorophene | 70-30-4 | Non-detect | 1000 |
| Hexachloropropene (Hexachloropropylene) | 1888-71-7 | Non-detect | 1900 |
| Isodrin | 485-73-6 | Non-detect | 1900 |
| Kapone (Chlorocone) | 143-60-0 | Non-detect | 3600 |
| Lindane (gamma-Hexachlorocyclohexane) [gamma-BHC] | 58-89-9 | non-detect | 1.4 |
| Methylene chloride (Dichloromethane) | 75-09-2 | non-detect | 37 |
| 4,4'-methylene-bis(2-chloroaniline) | 101-14-4 | non-detect | 100 |
| Methyl iodide (Iodomethane) | 74-88-4 | non-detect | 37 |
| Pentachlorobenzene | 608-93-5 | non-detect | 1900 |
| Pentachloroethane | 78-01-7 | non-detect | 37 |
| Pentachloronitrobenzene (PCNB) [Quintobenzene] [Quintozene] | 82-68-8 | non-detect | 1900 |
| Pentachlorophenol | 87-86-5 | non-detect | 1900 |
| Pronamide | 23950-58-5 | non-detect | 1900 |
| Silvex (2,4,5-Trichlorophenoxypropionic acid) | 93-72-1 | non-detect | 7.0 |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD] | 1746-01-6 | non-detect | 30 |
| 1,2,4,5-Tetrachlorobenzene | 95-84-3 | non-detect | 1900 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | non-detect | 37 |
| Tetrachloroethylene (Perchloroethylene) | 127-18-4 | non-detect | 37 |
| 2,3,4,6-Tetrachlorophenol | 58-90-2 | non-detect | 1900 |
| 1,2,4-Trichlorobenzene | 120-82-1 | non-detect | 1900 |
| 1,1,1-Trichloroethane (Methyl chloroform) | 71-55-6 | non-detect | 37 |
| 1,1,2-Trichloroethane (Vinyl trichloride) | 79-00-5 | non-detect | 37 |
| Trichloroethylene | 79-01-6 | non-detect | 37 |
| Trichlorofluoromethane (Trichloromonofluoromethane) | 75-69-4 | non-detect | 37 |
| 2,4,5-Trichlorophenol | 95-85-4 | non-detect | 1900 |
| 2,4,6-Trichlorophenol | 88-06-2 | non-detect | 1900 |
| 1,2,3-Trichloropropane | 96-18-4 | non-detect | 37 |
| Vinyl Chloride | 75-01-4 | non-detect | 37 |

* Absence of PCBs can also be demonstrated by using appropriate screening methods, e.g., immunoassay kit for PCB in oils (Method 4020) or colorimetric analysis for PCBs in oil (Method 9079).

† Some minimum required detection limits are above the total halogen limit of 540 ppm. The detection limits reflect what was achieved during EPA testing and analysis and also analytical complexity associated with measuring all halogen compounds on Appendix VIII at low levels. EPA recognizes that in practice the presence of these compounds will be functionally limited by the molecular weight and the total halogen limit of 540 ppm.

(c) *Implementation.*—Waste that meets the comparable or syngas fuel specifications provided by paragraphs (a) or (b) of this section (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in paragraphs (c)(3) or (4) of this section) is excluded from the definition

of solid waste provided that the following requirements are met:

(1) *Notices.*—For purposes of this section, the person claiming and qualifying for the exclusion is called the comparable/syngas fuel generator and the person burning the comparable/syngas fuel is called the comparable/syngas burner. The person who generates the

comparable fuel or syngas fuel must claim and certify to the exclusion.

(i) State RCRA and CAA Directors in Authorized States or Regional RCRA and CAA Directors in Unauthorized States.—

(A) The generator must submit a one-time notice to the Regional or State RCRA and CAA Directors, in whose jurisdiction the exclusion is being claimed and where the comparable/syngas fuel will be burned, certifying compliance with the conditions of the exclusion and providing documentation as required by paragraph (c)(1)(i)(C) of this section;

(B) If the generator is a company that generates comparable/syngas fuel at more than one facility, the generator shall specify at which sites the comparable/syngas fuel will be generated;

(C) A comparable/syngas fuel generator's notification to the Directors must contain the following items:

(1) The name, address, and RCRA ID number of the person/facility claiming the exclusion;

(2) The applicable EPA Hazardous Waste Codes for the hazardous waste;

(3) Name and address of the units, meeting the requirements of paragraph (c)(2) of this section, that will burn the comparable/syngas fuel; and

(4) The following statement is signed and submitted by the person claiming the exclusion or his authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of 40 CFR 261.38 have been met for all waste identified in this notification. Copies of the records and information required at 40 CFR 261.28(c)(10) are available at the comparable/syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(ii) Public notice.—Prior to burning an excluded comparable/syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be

burned, a notice entitled "Notification of Burning a Comparable/Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

(A) Name, address, and RCRA ID number of the generating facility;

(B) Name and address of the unit(s) that will burn the comparable/syngas fuel;

(C) A brief, general description of the manufacturing, treatment, or other process generating the comparable/syngas fuel;

(D) An estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and

(E) Name and mailing address of the Regional or State Directors to whom the claim was submitted.

(2) *Burning.*—The comparable/syngas fuel exclusion for fuels meeting the requirements of paragraphs (a) or (b) and (c)(1) of this section applies only if the fuel is burned in the following units that also shall be subject to Federal/State/local air emission requirements, including all applicable CAA MACT requirements:

(i) Industrial furnaces as defined in §260.10 of this chapter;

(ii) Boilers, as defined in §260.10 of this chapter, that are further defined as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(B) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;

(iii) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter or applicable CAA MACT standards.

(3) *Blending to meet the viscosity specification.*—A hazardous waste blended to meet the viscosity specification shall:

(i) As generated and prior to any blending, manipulation, or processing meet the constituent and heating value specifications of paragraphs (a)(1)(i) and (a)(2) of this section;

(ii) Be blended at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this chapter; and

(iii) Not violate the dilution prohibition of paragraph (c)(6) of this chapter.

(4) *Treatment to meet the comparable fuel exclusion specifications.*—(1) A hazardous waste may be treated to meet the exclusion specifications of paragraphs (a)(1) and (2) of this section provided the treatment:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this Chapter; and

(C) Does not violate the dilution prohibition of paragraph (c)(6) of this section.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a comparable fuel remain a hazardous waste.

(5) *Generation of a syngas fuel.*—(1) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of paragraph (b) of this section provided the processing:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this chapter or is an exempt recycling unit pursuant to § 261.6(c) of this chapter; and

(C) Does not violate the dilution prohibition of paragraph (c)(6) of this chapter.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a syngas fuel remain a hazardous waste.

(6) *Dilution prohibition for comparable and syngas fuels.*—No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifica-

tions of paragraph (a)(1)(i), (a)(2) or (b) of this section.

(7) *Waste analysis plans.* The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The plan shall be followed and retained at the facility excluding the waste.

(i) At a minimum, the plan must specify:

(A) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;

(B) The test methods which will be used to test for these parameters;

(C) The sampling method which will be used to obtain a representative sample of the waste to be analyzed;

(D) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(E) If process knowledge is used in the waste determination, any information prepared by the generator in making such determination.

(ii) The waste analysis plan shall also contain records of the following:

(A) The dates and times waste samples were obtained, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any clean-up and sample preparation methods;

(F) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(G) All laboratory results demonstrating that the exclusion specifications have been met for the waste; and

(H) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in paragraph (c)(11) of this section and also provides for the availability of the documentation to the claimant upon request.

(ii) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of paragraph (c)(7)(i) of this section to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

(8) *Comparable fuel sampling and analysis.* (i) General. For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on appendix VIII to this part, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

(A) A constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream, or constituents for which there is a treatment standard for the waste code in 40 CFR 268.40;

(B) A constituent detected in previous analysis of the waste;

(C) Constituents introduced into the process that generates the waste; or

(D) Constituents that are byproducts or side reactions to the process that generates the waste.

NOTE TO PARAGRAPH (C)(8): Any claim under this section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.

(ii) For each waste for which the exclusion is claimed where the generator of the comparable/syngas fuel is not the original generator of the hazardous waste, the generator of the comparable/syngas fuel may not use process knowledge pursuant to paragraph (c)(8)(i) of this section and must test to determine that all of the constituent specifications of paragraphs (a)(2) and (b) of this section have been met.

(iii) The comparable/syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate that:

(A) Each constituent of concern is not present in the waste above the specification level at the 95% upper confidence limit around the mean; and

(B) The analysis could have detected the presence of the constituent at or below the specification level at the 95% upper confidence limit around the mean.

(iv) Nothing in this paragraph preempts, overrides or otherwise negates the provision in §262.11 of this chapter, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

(vi) The generator must conduct sampling and analysis in accordance with their waste analysis plan developed under paragraph (c)(7) of this section.

(vii) Syngas fuel and comparable fuel that has not been blended in order to meet the kinematic viscosity specifications shall be analyzed as generated.

(viii) If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall:

(A) Analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and

(B) After blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable/syngas fuel specifications.

(ix) Excluded comparable/syngas fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.

(9) *Speculative accumulation.* Any persons handling a comparable/syngas fuel are subject to the speculative accumulation test under § 261.2(c)(4) of this chapter.

(10) *Records.* The generator must maintain records of the following information on-site:

(i) All information required to be submitted to the implementing authority as part of the notification of the claim:

(A) The owner/operator name, address, and RCRA facility ID number of the person claiming the exclusion;

(B) The applicable EPA Hazardous Waste Codes for each hazardous waste excluded as a fuel; and

(C) The certification signed by the person claiming the exclusion or his authorized representative.

(ii) A brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;

(iii) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;

(iv) Documentation for any claim that a constituent is not present in the hazardous waste as required under paragraph (c)(8)(i) of this section;

(v) The results of all analyses and all detection limits achieved as required under paragraph (c)(8) of this section;

(vi) If the excluded waste was generated through treatment or blending, documentation as required under paragraph (c)(3) or (4) of this section;

(vii) If the waste is to be shipped off-site, a certification from the burner as

required under paragraph (c)(12) of this section;

(viii) A waste analysis plan and the results of the sampling and analysis that includes the following:

(A) The dates and times waste samples were obtained, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any clean-up and sample preparation methods;

(F) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(G) All laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and

(H) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in paragraph (c)(11) of this section and also provides for the availability of the documentation to the claimant upon request; and

(ix) If the generator ships comparable/syngas fuel off-site for burning, the generator must retain for each shipment the following information on-site:

(A) The name and address of the facility receiving the comparable/syngas fuel for burning;

(B) The quantity of comparable/syngas fuel shipped and delivered;

(C) The date of shipment or delivery;

(D) A cross-reference to the record of comparable/syngas fuel analysis or other information used to make the determination that the comparable/syngas fuel meets the specifications as

required under paragraph (c)(8) of this section; and.

(E) A one-time certification by the burner as required under paragraph (c)(12) of this section.

(11) *Records retention.* Records must be maintained for the period of three years. A generator must maintain a current waste analysis plan during that three year period.

(12) *Burner certification.* Prior to submitting a notification to the State and Regional Directors, a comparable/syngas fuel generator who intends to ship their fuel off-site for burning must obtain a one-time written, signed statement from the burner:

(i) Certifying that the comparable/syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under paragraph (c)(2) of this section;

(ii) Identifying the name and address of the units that will burn the comparable/syngas fuel; and

(iii) Certifying that the state in which the burner is located is authorized to exclude wastes as comparable/syngas fuel under the provisions of this section.

(13) *Ineligible waste codes.* Wastes that are listed because of presence of dioxins or furans, as set out in Appendix VII of this part, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full RCRA hazardous waste management requirements.

[63 FR 33823, June 19, 1998]

APPENDICES TO PART 261

APPENDIX I TO PART 261— REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like

material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65

Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,"^{1a} U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 28 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs.—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,"^{1a}

This manual also contains additional information on application of these protocols.

APPENDIX II TO PART 261—METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

[58 FR 46049, Aug. 31, 1993]

APPENDIX III TO PART 261—CHEMICAL ANALYSIS TEST METHODS

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

[58 FR 46049, Aug. 31, 1993]

^{1a}These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

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(g) Regulation of the waste or category of waste under 40 CFR part 273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

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Subpart B—Applicability

279.10 Applicability.
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279.63 Rebuttable presumption for used oil.
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Subpart H—Standards for Used Oil Fuel Marketers

279.70 Applicability.
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279.75 Notices.

Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

279.80 Applicability.
279.81 Disposal.
279.82 Use as a dust suppressant.

AUTHORITY: Sections 1008, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930, 6934, and 6974); and sections 101(37) and 114(c) of CERCLA (42 U.S.C. 9601(37) and 9614(c)).

SOURCE: 57 FR 41612, Sept. 10, 1992, unless otherwise noted.

Subpart A—Definitions

§279.1 Definitions.

Terms that are defined in §§260.10, 261.1, and 280.12 of this chapter have the same meanings when used in this part.

Aboveground tank means a tank used to store or process used oil that is not an underground storage tank as defined in §280.12 of this chapter.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer used oil collection center means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing tank means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on

or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or

(2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank to be completed within a reasonable time.

Household "do-it-yourselfer" used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household "do-it-yourselfer" used oil generator means an individual who generates household "do-it-yourselfer" used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Petroleum refining facility means an establishment primarily engaged in producing gasoline, kerosine, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Re-refining distillation bottoms means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Used oil aggregation point means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used oil burner means a facility where used oil not meeting the specification requirements in §279.11 is burned for energy recovery in devices identified in §279.61(a).

Used oil collection center means any site or facility that is registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of §279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

Used oil fuel marketer means any person who conducts either of the following activities:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 of this part.

Used oil generator means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

Used oil processor/re-refiner means a facility that processes used oil.

or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or

(2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank to be completed within a reasonable time.

Household "do-it-yourselfer" used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household "do-it-yourselfer" used oil generator means an individual who generates household "do-it-yourselfer" used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Petroleum refining facility means an establishment primarily engaged in producing gasoline, kerosine, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Re-refining distillation bottoms means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Used oil aggregation point means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used oil burner means a facility where used oil not meeting the specification requirements in §279.11 is burned for energy recovery in devices identified in §279.61(a).

Used oil collection center means any site or facility that is registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of §279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

Used oil fuel marketer means any person who conducts either of the following activities:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 of this part.

Used oil generator means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

Used oil processor/re-refiner means a facility that processes used oil.

one or more of the characteristics of hazardous waste identified in subpart C are subject to:

(1) Except as provided in paragraph (b)(2)(iii) of this section, regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter rather than as used oil under this part, if the resultant mixture exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter; or

(ii) Except as specified in § 279.10(b)(2)(iii) regulation as used oil under this part, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under subpart C of part 261 of this chapter.

(iii) Regulation as used oil under this part, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under § 261.21 of this chapter.

(3) *Conditionally exempt small quantity generator hazardous waste.* Mixtures of used oil and conditionally exempt small quantity generator hazardous waste regulated under § 261.5 of this chapter are subject to regulation as used oil under this part.

(c) *Materials containing or otherwise contaminated with used oil.* (1) Except as provided in paragraph (c)(2) of this section, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

(1) Are not used oil and thus not subject to this part, and

(ii) If applicable are subject to the hazardous waste regulations of parts 124, 260 through 266, 268, and 270 of this chapter.

(2) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under this part.

(3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this part.

~~(d) Mixtures of used oil with products.~~

(1) Except as provided in paragraph (d)(2) of this section, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under this part.

(2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of subpart C of this part.

(e) *Materials derived from used oil.* (1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

(1) Not used oil and thus are not subject to this part, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter as provided in § 261.3(c)(2)(1) of this chapter.

(2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this part.

(3) Except as provided in paragraph (e)(4) of this section, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(1) Not used oil and thus are not subject to this Part, and

(ii) Are solid wastes and thus are subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter if the materials are listed or identified as hazardous wastes.

(4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this part.

(f) *Wastewater.* Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with *de minimis* quantities of used oil are not subject to the requirements of this part. For purposes of this paragraph, "*de minimis*" quantities of used oils are

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defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) *Used oil introduced into crude oil pipelines or a petroleum refining facility.*

(1) Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this part. The used oil is subject to the requirements of this part prior to the mixing of used oil with crude oil or natural gas liquids.

(2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this part.

(3) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this part provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(4) Except as provided in paragraph (g)(5) of this section, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of this part only if the used oil meets the specification of § 279.11. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system

as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this part. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the waste water treatment system).

(6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this part.

(h) *Used oil on vessels.* Used oil produced on vessels from normal shipboard operations is not subject to this part until it is transported ashore.

(i) *Used oil containing PCBs.* Used oil containing PCBs (as defined at 40 CFR 761.3) at any concentration less than 50 ppm is subject to the requirements of this part. Used oil subject to the requirements of this part may also be subject to the prohibitions and requirements found at 40 CFR part 761, including § 761.20(d) and (e). Used oil containing PCBs at concentrations of 50 ppm or greater is not subject to the requirements of this part, but is subject to regulation under 40 CFR part 761.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 59 FR 10559, Mar. 4, 1994; 59 FR 10559, Mar. 4, 1994; 61 FR 33693, June 28, 1996; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, § 279.10 was amended by revising paragraph (1), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

§ 279.10 Applicability.

* * * * *

(1) *Used oil containing PCBs.* In addition to the requirements of 40 CFR part 279, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements found at 40 CFR 761.20(e).

§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the

constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with §§ 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

TABLE 1—USED OIL NOT EXCEEDING ANY SPECIFICATION LEVEL IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY¹

| Constituent/property | Allowable level |
|----------------------|---------------------------------|
| Arsenic | 5 ppm maximum. |
| Cadmium | 2 ppm maximum. |
| Chromium | 10 ppm maximum. |
| Lead | 100 ppm maximum. |
| Flash point | 100 °F minimum. |
| Total halogens | 4,000 ppm maximum. ² |

NOTE: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).

¹ The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see § 279.10(b)).

² Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.12 Prohibitions.

(a) *Surface impoundment prohibition.* Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under parts 264 or 265 of this chapter.

(b) *Use as a dust suppressant.* The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in § 279.82(c).

(c) *Burning in particular units.* Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, includ-

ing the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23.

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

Subpart C—Standards for Used Oil Generators

§ 279.20 Applicability.

(a) *General.* Except as provided in paragraphs (a)(1) through (a)(4) of this section, this subpart applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(1) *Household "do-it-yourselfer" used oil generators.* Household "do-it-yourselfer" used oil generators are not subject to regulation under this part.

(2) *Vessels.* Vessels at sea or at port are not subject to this subpart. For purposes of this subpart, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are co-generators of the used oil and are both responsible for managing the waste in compliance with this subpart once the used oil is transported ashore. The co-generators may decide among them which party will fulfill the requirements of this subpart.

(3) *Diesel fuel.* Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this subpart.

(4) *Farmers.* Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are

not subject to the requirements of this part.

(b) *Other applicable provisions.* Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (5) of this section:

(1) Generators who transport used oil, except under the self-transport provisions of §279.24 (a) and (b), must also comply with subpart E of this part.

(2) (i) Except as provided in paragraph (b)(2)(ii) of this section, generators who process or re-refine used oil must also comply with subpart F of this part.

(ii) Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel.

(A) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

(B) Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act or other applicable Federal or state regulations governing the management or discharge of wastewaters;

(C) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(D) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to §279.10(c); or

(E) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to §279.23.

(3) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of §279.23, must also comply with subpart G of this part.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11

must also comply with subpart H of this part.

(5) Generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.21 Hazardous waste mixing.

(a) Mixtures of used oil and hazardous waste must be managed in accordance with §279.10(b).

(b) The rebuttable presumption for used oil of §279.10(b)(1)(ii) applies to used oil managed by generators. Under the rebuttable presumption for used oil of §279.10(b)(1)(ii), used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.22 Used oil storage.

Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this Subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units.* Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store used oil at generator facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Labels.* (1) Containers and aboveground tanks used to store used oil at generator facilities must be labeled or

marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be labeled or marked clearly with the words "Used Oil."

(d) *Response to releases.* Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, a generator must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, §279.22 was amended by revising paragraph (d), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

§ 279.22 Used oil storage.

* * * * *

(d) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280, subpart F of this chapter which has occurred after the effective date of the authorized used oil program for the State in which the release is located, a generator must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary to prevent future releases, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.23 On-site burning in space heaters.

Generators may burn used oil in used oil-fired space heaters provided that:

(a) The heater burns only used oil that the owner or operator generates

or used oil received from household do-it-yourself used oil generators;

(b) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(c) The combustion gases from the heater are vented to the ambient air.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.24 Off-site shipments.

Except as provided in paragraphs (a) through (c) of this section, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

(a) *Self-transportation of small amounts to approved collection centers.* Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

- (1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
- (2) The generator transports no more than 55 gallons of used oil at any time; and
- (3) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil.

(b) *Self-transportation of small amounts to aggregation points owned by the generator.* Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

- (1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
- (2) The generator transports no more than 55 gallons of used oil at any time; and
- (3) The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

(c) *Tolling arrangements.* Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the

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claimed oil is returned by the pro-
cessor/re-refiner to the generator for use
as a lubricant, cutting oil, or coolant.
The contract (known as a "tolling ar-
rangement") must indicate:

(1) The type of used oil and the fre-
quency of shipments;

(2) That the vehicle used to transport
the used oil to the processing/re-refin-
ing facility and to deliver recycled
used oil back to the generator is owned
and operated by the used oil processor/
re-refiner; and

(3) That reclaimed oil will be re-
turned to the generator.

Subpart D—Standards for Used Oil Collection Centers and Ag- gregation Points

§ 279.30 Do-it-yourselfer used oil col- lection centers.

(a) *Applicability.* This section applies
to owners or operators of all do-it-
yourselfer (DIY) used oil collection
centers. A DIY used oil collection cen-
ter is any site or facility that accepts/
aggregates and stores used oil collected
only from household do-it-yourselfers.

(b) *DIY used oil collection center re-
quirements.* Owners or operators of all
DIY used oil collection centers must
comply with the generator standards in
subpart C of this part.

§ 279.31 Used oil collection centers.

(a) *Applicability.* This section applies
to owners or operators of used oil col-
lection centers. A used oil collection
center is any site or facility that ac-
cepts/aggregates and stores used oil
collected from used oil generators reg-
ulated under subpart C of this part who
bring used oil to the collection center
in shipments of no more than 55 gal-
lons under the provisions of § 279.24(a).
Used oil collection centers may also
accept used oil from household do-it-
yourselfers.

(b) *Used oil collection center require-
ments.* Owners or operators of all used
oil collection centers must:

(1) Comply with the generator stand-
ards in subpart C of this part; and

(2) Be registered/licensed/permitted/
recognized by a state/county/municipal
government to manage used oil.

§ 279.32 Used oil aggregation points owned by the generator.

(a) *Applicability.* This section applies
to owners or operators of all used oil
aggregation points. A used oil aggrega-
tion point is any site or facility that
accepts, aggregates, and/or stores used
oil collected only from other used oil
generation sites owned or operated by
the owner or operator of the aggrega-
tion point, from which used oil is
transported to the aggregation point in
shipments of no more than 55 gallons
under the provisions of § 279.24(b). Used
oil aggregation points may also accept
used oil from household do-it-
yourselfers.

(b) *Used oil aggregation point require-
ments.* Owners or operators of all used
oil aggregation points must comply
with the generator standards in sub-
part C of this part.

Subpart E—Standards for Used Oil Transporter and Transfer Facilities

§ 279.40 Applicability.

(a) *General.* Except as provided in
paragraphs (a)(1) through (a)(4) of this
section, this subpart applies to all used
oil transporters. Used oil transporters
are persons who transport used oil, per-
sons who collect used oil from more
than one generator and transport the
collected oil, and owners and operators
of used oil transfer facilities.

(1) This subpart does not apply to on-
site transportation.

(2) This subpart does not apply to
generators who transport shipments of
used oil totalling 55 gallons or less
from the generator to a used oil collec-
tion center as specified in § 279.24(a).

(3) This subpart does not apply to
generators who transport shipments of
used oil totalling 55 gallons or less
from the generator to a used oil aggrega-
tion point owned or operated by the
same generator as specified in
§ 279.24(b).

(4) This subpart does not apply to
transportation of used oil from house-
hold do-it-yourselfers to a regulated
used oil generator, collection center,
aggregation point, processor/re-refiner,
or burner subject to the requirements
of this part. Except as provided in
paragraphs (a)(1) through (a)(3) of this

section, this subpart does, however, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(b) *Imports and exports.* Transporters who import used oil from abroad or export used oil outside of the United States are subject to the requirements of this subpart from the time the used oil enters and until the time it exits the United States.

(c) *Trucks used to transport hazardous waste.* Unless trucks previously used to transport hazardous waste are emptied as described in § 261.7 of this chapter prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the provisions of § 279.10(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) *Other applicable provisions.* Used oil transporters who conduct the following activities are also subject to other applicable provisions of this part as indicated in paragraphs (d)(1) through (5) of this section:

(1) Transporters who generate used oil must also comply with subpart C of this part;

(2) Transporters who process or re-refine used oil, except as provided in § 279.41, must also comply with subpart F of this part;

(3) Transporters who burn off-specification used oil for energy recovery must also comply with subpart G of this part;

(4) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part; and

(5) Transporters who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.41 Restrictions on transporters who are not also processors or re-refiners.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in paragraph (b) of this section, used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in subpart F of this part.

(b) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the processor/re-refiner requirements in subpart F of this part.

(c) Transporters of used oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in subpart F of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 10560, Mar. 4, 1994]

§ 279.42 Notification.

(a) *Identification numbers.* Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil transporter who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12 (To obtain ordering information for EPA Form 8700-12 call RCRA/Superfund Hotline at 1-800-424-9346 or 703-920-9810); or

(2) A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

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- (i) Transporter company name;
- (ii) Owner of the transporter company;
- (iii) Mailing address for the transporter;
- (iv) Name and telephone number for the transporter point of contact;
- (v) Type of transport activity (i.e., transport only, transport and transfer facility, transfer facility only);
- (vi) Location of all transfer facilities at which used oil is stored;
- (vii) Name and telephone number for a contact at each transfer facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 58 FR 33342, June 17, 1993]

§ 279.43 Used oil transportation.

(a) *Deliveries.* A used oil transporter must deliver all used oil received to:

- (1) Another used oil transporter, provided that the transporter has obtained an EPA identification number;
- (2) A used oil processing/re-refining facility who has obtained an EPA identification number;
- (3) An off-specification used oil burner facility who has obtained an EPA identification number; or
- (4) An on-specification used oil burner facility.

(b) *DOT Requirements.* Used oil transporters must comply with all applicable requirements under the U.S. Department of Transportation regulations in 49 CFR parts 171 through 180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR parts 171 through 180.

(c) *Used oil discharges.* (1) In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(2) If a discharge of used oil occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health or the environment, that official may authorize the removal of the used oil

by transporters who do not have EPA identification numbers.

(3) An air, rail, highway, or water transporter who has discharged used oil must:

(1) Give notice, if required by 49 CFR 171.15 to the National Response Center (800-424-8802 or 202-426-2675); and

(ii) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.

(4) A water transporter who has discharged used oil must give notice as required by 33 CFR 153.203.

(5) A transporter must clean up any used oil discharged that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.44 Rebuttable presumption for used oil.

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

- (1) Testing the used oil; or
- (2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of part 261 of

this chapter). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954. (202) 512-1800 (document number 955-001-00000-1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFC are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention.* Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the transporter for at least 3 years.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.45 Used oil storage at transfer facilities.

Used oil transporters are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil transporters are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Applicability.* This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to

regulation under subpart F of this chapter.

(b) *Storage units.* Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(c) *Condition of units.* Containers and aboveground tanks used to store used oil at transfer facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(d) *Secondary containment for containers.* Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

§ 279.45 Used oil storage at transfer facilities.

* * * * *

(h) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of part 280 subpart F which has occurred after the effective date of the authorized used oil program for the State in which the release is located, the owner/operator of a transfer facility must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the release used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.46 Tracking.

(a) Acceptance. Used oil transporters must keep a record of each used oil shipment accepted for transport. Records for each shipment must include:

- (1) The name and address of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
- (2) The EPA identification number (if applicable) of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
- (3) The quantity of used oil accepted;
- (4) The date of acceptance; and
- (5)(1) Except as provided in paragraph (a)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor/re-refiner who provided the used oil for transport.

(ii) Intermediate rail transporters are not required to sign the record of acceptance.

(b) Deliveries. Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor/re-refiner, or disposal facility. Records of each delivery must include:

- (1) The name and address of the receiving facility or transporter;
- (2) The EPA identification number of the receiving facility or transporter;
- (3) The quantity of used oil delivered;
- (4) The date of delivery;
- (5)(1) Except as provided in paragraph (b)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a

(f) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

- (i) Dikes, berms or retaining walls; and
- (ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
- (iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(g) Labels. (1) Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be labeled or marked clearly with the words "Used Oil."

(h) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, the owner/operator of a transfer facility must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, § 279.45 was amended by revising paragraph (h), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

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representative of the receiving facility or transporter.

(1) Intermediate rail transporters are not required to sign the record of delivery.

(c) *Exports of used oil.* Used oil transporters must maintain the records described in paragraphs (b)(1) through (b)(4) of this section for each shipment of used oil exported to any foreign country.

(d) *Record retention.* The records described in paragraphs (a), (b), and (c) of this section must be maintained for at least three years.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.47 Management of residues.

Transporters who generate residues from the storage or transport of used oil must manage the residues as specified in § 279.10(e).

Subpart F—Standards for Used Oil Processors and Re-Refiners

§ 279.50 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of this subpart do not apply to:

(1) Transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in § 279.41; or

(2) Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in § 279.61(b).

(b) *Other applicable provisions.* Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in

paragraphs (b)(1) through (b)(5) of this section.

(1) Processors/re-refiners who generate used oil must also comply with subpart C of this part;

(2) Processors/re-refiners who transport used oil must also comply with subpart E of this part;

(3) Except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) of this section, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with subpart G of this part. Processor/re-refiners burning used oil for energy recovery under the following conditions are not subject to subpart G of this part:

(1) The used oil is burned in an on-site space heater that meets the requirements of § 279.23; or

(1) The used oil is burned for purposes of processing used oil, which is considered burning incidentally to used oil processing;

(4) Processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part; and

(5) Processors/re-refiners who dispose of used oil, including the use of used oil as a dust suppressant, also must comply with subpart I of this part.

§ 279.51 Notification.

(a) *Identification numbers.* Used oil processors and re-refiners who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil processor or re-refiner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12 (To obtain EPA Form 8700-12 call RCRA/Superfund Hotline at 1-800-424-9346 or 703-920-9810); or

(2) A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

- (i) Processor or re-refiner company name;
- (ii) Owner of the processor or re-refiner company;
- (iii) Mailing address for the processor or re-refiner;
- (iv) Name and telephone number for the processor or re-refiner point of contact;
- (v) Type of used oil activity (i.e., process only, process and re-refine);
- (vi) Location of the processor or re-refiner facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.52 General facility standards.

(a) *Preparedness and prevention.* Owners and operators of used oil processors and re-refiners facilities must comply with the following requirements:

(1) *Maintenance and operation of facility.* Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

(2) *Required equipment.* All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could require a particular kind of equipment specified in paragraphs (a)(2)(1) through (iv) of this section:

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(iii) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

(iv) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(3) *Testing and maintenance of equipment.* All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) *Access to communications or alarm system.* (i) Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in paragraph (a)(2) of this section.

(ii) If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in paragraph (a)(2) of this section.

(5) *Required aisle space.* The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(6) *Arrangements with local authorities.* (i) The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

(A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(C) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(D) Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(i) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(b) *Contingency plan and emergency procedures.* Owners and operators of used oil processors and re-refiners facilities must comply with the following requirements:

(1) *Purpose and implementation of contingency plan.* (i) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of used oil which could threaten human health or the environment.

(2) *Content of contingency plan.* (i) The contingency plan must describe the actions facility personnel must take to comply with paragraphs (b) (1) and (6) of this section in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V of this title, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions

that are sufficient to comply with the requirements of this part.

(iii) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to paragraph (a)(6) of this section.

(iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (b)(5) of this section), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(v) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires).

(3) *Copies of contingency plan.* A copy of the contingency plan and all revisions to the plan must be:

(1) Maintained at the facility; and

(ii) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(4) *Amendment of contingency plan.* The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(1) Applicable regulations are revised;

(ii) The plan falls in an emergency;

(iii) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a

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way that materially increases the po-
 tential for fires, explosions, or releases
 of used oil, or changes the response
 necessary in an emergency;

(iv) The list of emergency coordina-
 tors changes; or

(v) The list of emergency equipment
 changes.

(5) *Emergency coordinator.* At all
 times, there must be at least one em-
 ployee either on the facility premises
 or on call (i.e., available to respond to
 an emergency by reaching the facility
 within a short period of time) with the
 responsibility for coordinating all
 emergency response measures. This
 emergency coordinator must be thor-
 oughly familiar with all aspects of the
 facility's contingency plan, all oper-
 ations and activities at the facility,
 the location and characteristic of used
 oil handled, the location of all records
 within the facility, and facility layout.
 In addition, this person must have the
 authority to commit the resources
 needed to carry out the contingency
 plan.

Guidance: The emergency coordina-
 tor's responsibilities are more fully
 spelled out in paragraph (b)(6) of this
 section. Applicable responsibilities for
 the emergency coordinator vary, de-
 pending on factors such as type and va-
 riety of used oil handled by the facil-
 ity, and type and complexity of the fa-
 cility.

(6) *Emergency procedures.* (i) Whenever
 there is an imminent or actual emer-
 gency situation, the emergency coordi-
 nator (or the designee when the emer-
 gency coordinator is on call) must im-
 mediately:

(A) Activate internal facility alarms
 or communication systems, where ap-
 plicable, to notify all facility person-
 nel; and

(B) Notify appropriate State or local
 agencies with designated response roles
 if their help is needed.

(ii) Whenever there is a release, fire,
 or explosion, the emergency coordina-
 tor must immediately identify the
 character, exact source, amount, and a
 real extent of any released materials.
 He may do this by observation or re-
 view of facility records of manifests
 and, if necessary, by chemical analysts.

(iii) Concurrently, the emergency co-
 ordinator must assess possible hazards

to human health or the environment
 that may result from the release, fire,
 or explosion. This assessment must
 consider both direct and indirect ef-
 fects of the release, fire, or explosion
 (e.g., the effects of any toxic, irritat-
 ing, or asphyxiating gases that are gen-
 erated, or the effects of any hazardous
 surface water run-offs from water of
 chemical agents used to control fire
 and heat-induced explosions).

(iv) If the emergency coordinator de-
 termines that the facility has had a re-
 lease, fire, or explosion which could
 threaten human health, or the environ-
 ment, outside the facility, he must re-
 port his findings as follows:

(A) If his assessment indicated that
 evacuation of local areas may be advis-
 able, he must immediately notify ap-
 propriate local authorities. He must be
 available to help appropriate officials
 decide whether local areas should be
 evacuated; and

(B) He must immediately notify ei-
 ther the government official des-
 ignated as the on-scene coordinator for
 the geographical area (in the applica-
 ble regional contingency plan under
 part 1510 of this title), or the National
 Response Center (using their 24-hour
 toll free number 800/424-8802). The re-
 port must include:

(1) Name and telephone number of re-
 porter;

(2) Name and address of facility;

(3) Time and type of incident (e.g., re-
 lease, fire);

(4) Name and quantity of material(s)
 involved, to the extent known;

(5) The extent of injuries, if any; and

(6) The possible hazards to human
 health, or the environment, outside the
 facility.

(v) During an emergency, the emer-
 gency coordinator must take all rea-
 sonable measures necessary to ensure
 that fires, explosions, and releases do
 not occur, recur, or spread to other
 used oil or hazardous waste at the fa-
 cility. These measures must include,
 where applicable, stopping processes
 and operation, collecting and contain-
 ing released used oil, and removing or
 isolating containers.

(vi) If the facility stops operation in
 response to a fire, explosion, or release,
 the emergency coordinator must mon-
 itor for leaks, pressure buildup, gas

§ 279.53

generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator must provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(A) No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed; and

(B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(C) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities that the facility is in compliance with paragraphs (b)(6)(viii)(A) and (B) of this section before operations are resumed in the affected area(s) of the facility.

(ix) The owner or operator must note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident (e.g., fire, explosion);

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to human health or the environment, where this is applicable;

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.53 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a processing/re-refining facility is

not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh PA 15250-7954, (202) 512-1800 (document number 955-001-00000-1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

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§279.54 Used oil management.

Used oil processor/re-refiners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil processors/re-refiners are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Management units.* Used oil processors/re-refiners may not store used oil in units other than tanks, containers, or units subject to regulation under part 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers.* Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or

retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for new aboveground tanks.* New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Labels.* (1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."

(g) *Response to releases.* Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, an owner/operator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(h) *Closure*—(1) *Aboveground tanks.* Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:

(i) At closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.

(ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (h)(1)(i) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (§265.310 of this chapter).

(2) *Containers.* Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oils or residues of used oil must be removed from the site:

(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under part 261 of this chapter.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, §279.54 was amended by revising paragraph (g), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

§ 279.54 *Used oil management.*

* * * * *

(g) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 260, subpart F of this chapter which has occurred after the effective date of the authorized used oil program for the State in which the release is located, an owner/operator must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

* * * * *

§ 279.55 *Analysis plan.*

Owners or operators of used oil processing and re-refining facilities must develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of §279.53 and, if applicable, §279.72. The owner or operator must keep the plan at the facility.

(a) *Rebuttable presumption for used oil in §279.53.* At a minimum, the plan must specify the following:

(1) Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods in appendix I of part 261 of this chapter; or

(B) A method shown to be equivalent under §§260.20 and 260.21 of this chapter;

(ii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iii) The methods used to analyze used oil for the parameters specified in §279.53; and

(3) The type of information that will be used to determine the halogen content of the used oil.

(b) *On-specification used oil fuel in §279.72.* At a minimum, the plan must specify the following if §279.72 is applicable:

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(1) Whether sample analyses or other information will be used to make this determination;

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods in appendix I of part 261 of this chapter; or

(B) A method shown to be equivalent under § 260.20 and 260.21 of this chapter;

(ii) Whether used oil will be sampled and analyzed prior to or after any processing/re-refining;

(iii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iv) The methods used to analyze used oil for the parameters specified in § 279.72; and

(3) The type of information that will be used to make the on-specification used oil fuel determination.

§ 279.56 Tracking.

(a) *Acceptance.* Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing/re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the processor/re-refiner;

(2) The name and address of the generator or processor/re-refining from whom the used oil was sent for processing/re-refining;

(3) The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) *Delivery.* Used oil processor/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/re-refiner, or disposal facility. These records may

take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(2) The name and address of the burner, processor/re-refiner or disposal facility who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(4) The EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(c) *Record retention.* The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.57 Operating record and reporting.

(a) *Operating record.* (1) The owner or operator must keep a written operating record at the facility.

(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) Records and results of used oil analyses performed as described in the analysis plan required under § 279.55; and

(ii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in § 279.52(b).

(b) *Reporting.* A used oil processor/re-refiner must report to the Regional Administrator, in the form of a letter, on a biennial basis (by March 1 of each even numbered year), the following information concerning used oil activities during the previous calendar year:

(1) The EPA identification number, name, and address of the processor/re-refiner;

(2) The calendar year covered by the report; and

(3) The quantities of used oil accepted for processing/re-refining and the

manner in which the used oil is processed/re-refined, including the specific processes employed.

§ 279.58 Off-site shipments of used oil.

Used oil processors/re-refiners who initiate shipments of used oil off-site must ship the used oil using a used oil transporter who has obtained an EPA identification number.

§ 279.59 Management of residues.

Owners and operators who generate residues from the storage, processing, or re-refining of used oil must manage the residues as specified in § 279.10(e).

Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

§ 279.60 Applicability.

(a) *General.* The requirements of this subpart apply to used oil burners except as specified in paragraphs (a)(1) and (a)(2) of this section. A used oil burner is a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a). Facilities burning used oil for energy recovery under the following conditions are not subject to this Subpart:

- (1) The used oil is burned by the generator in an on-site space heater under the provisions of § 279.23; or
- (2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(b) *Other applicable provisions.* Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated below.

- (1) Burners who generate used oil must also comply with subpart C of this part;
- (2) Burners who transport used oil must also comply with subpart E of this part;
- (3) Except as provided in § 279.61(b), burners who process or re-refine used oil must also comply with subpart F of this part;
- (4) Burners who direct shipments of off-specification used oil from their fa-

ility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part; and

(5) Burners who dispose of used oil, including the use of used oil as a dust suppressant, must comply with subpart I of this part.

(c) *Specification fuel.* This subpart does not apply to persons burning used oil that meets the used oil fuel specification of § 279.11, provided that the burner complies with the requirements of subpart H of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.61 Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

- (1) Industrial furnaces identified in § 260.10 of this chapter;
- (2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

- (i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;
- (ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
- (iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23; or

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

(b)(1) With the following exception, used oil burners may not process used oil unless they also comply with the requirements of subpart F of this part.

(2) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

§ 279.62 Notification

(a) *Identification numbers.* Used oil burners which have not previously

complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil burner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12 (To obtain EPA Form 8700-12 call RCRA/Superfund Hotline at 1-800-424-9346 or 703-920-9810); or

(2) A letter requesting an EPA identification number. Call the RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

- (1) Burner company name;
 - (i) Owner of the burner company;
 - (ii) Mailing address for the burner;
 - (iv) Name and telephone number for the burner point of contact;
 - (v) Type of used oil activity; and
 - (vi) Location of the burner facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.63 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:

- (1) Testing the used oil;
- (2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or
- (3) If the used oil has been received from a processor/refiner subject to regulation under subpart F of this part, using information provided by the processor/re-refiner.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste/because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut

the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954. 202-512-1800 (document number 955-001-00000-1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention.* Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the burner for at least 3 years.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.64 Used oil storage.

Used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil burners are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units.* Used oil burners may not store used oil in units other

than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store oil at burner facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers.* Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks.* New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(1) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Labels.* (1) Containers and aboveground tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be labeled or marked clearly with the words "Used Oil."

(g) *Response to releases.* Upon the detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, a burner must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, § 279.64 was amended by revising paragraph (g), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

§ 279.64 Used oil storage.

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(g) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280 subpart F which has occurred after the effective date of the authorized used oil program for

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- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§279.65 Tracking.

(a) *Acceptance.* Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

- (1) The name and address of the transporter who delivered the used oil to the burner;
- (2) The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;
- (3) The EPA identification number of the transporter who delivered the used oil to the burner;
- (4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;
- (5) The quantity of used oil accepted; and
- (6) The date of acceptance.

(b) *Record retention.* The records described in paragraph (a) of this section must be maintained for at least three years.

§279.66 Notices.

(a) *Certification.* Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

- (1) The burner has notified EPA stating the location and general description of his used oil management activities; and
- (2) The burner will burn the used oil only in an industrial furnace or boiler identified in §279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of

this section must be maintained for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

§279.67 Management of residues.

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in §279.10(e).

Subpart H—Standards for Used Oil Fuel Marketers

§279.70 Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of this subpart:

- (1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or
- (2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11.

(b) The following persons are not marketers subject to this subpart:

- (1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidentally burn used oil are not marketers subject to this Subpart;
- (2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of §279.11.

(c) Any person subject to the requirements of this Subpart must also comply with one of the following:

- (1) Subpart C of this part—Standards for Used Oil Generators;
- (2) Subpart E of this part—Standards for Used Oil Transporters and Transfer Facilities;
- (3) Subpart F of this part—Standards for Used Oil Processors and Re-refiners; or

(4) Subpart G of this part—Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.71 Prohibitions.

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in § 279.61(a).

§ 279.72 On-specification used oil fuel.

(a) *Analysis of used oil fuel.* A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of § 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

(b) *Record retention.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under § 279.11, must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.73 Notification.

(a) *Identification numbers.* A used oil fuel marketer subject to the requirements of this subpart who has not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12; or

(2) A letter requesting an EPA identification number. The letter should include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity (i.e., generator directing shipments of off-specification used oil to a burner).

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.74 Tracking.

(a) *Off-specification used oil delivery.* Any used oil marketer who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) *On-specification used oil delivery.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under § 279.11 must keep a record of each shipment of used oil to the facility to which it delivers the used oil. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered;

(3) The date of shipment or delivery; and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.72(a).

(c) *Record retention.* The records described in paragraphs (a) and (b) of this

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[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

EFFECTIVE DATE NOTE: At 63 FR 24969, May 6, 1998, § 279.74 was amended by revising paragraph (b), effective July 6, 1998. For the convenience of the user, the superseded text is set forth as follows:

§ 279.74 Tracking.

* * * * *

(b) *On-specification used oil delivery.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under § 279.11 must keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:

- (1) The name and address of the facility receiving the shipment;
- (2) The quantity of used oil fuel delivered;
- (3) The date of shipment or delivery; and
- (4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.72(a).

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§ 279.75 Notices.

(a) *Certification.* Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

- (1) The burner has notified EPA stating the location and general description of used oil management activities; and
- (2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of this section must be maintained for three years from the date the last ship-

ment of off-specification used oil is shipped to the burner.

Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

§ 279.80 Applicability.

The requirements of this subpart apply to all used oils that cannot be recycled and are therefore being disposed.

§ 279.81 Disposal.

(a) *Disposal of hazardous used oils.* Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this part must be managed in accordance with the hazardous waste management requirements of parts 260 through 266, 268, 270 and 124 of this chapter.

(b) *Disposal of nonhazardous used oils.* Used oils that are not hazardous wastes and cannot be recycled under this part must be disposed in accordance with the requirements of parts 257 and 258 of this chapter.

§ 279.82 Use as a dust suppressant.

(a) The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in paragraph (c) of this section.

(b) A State may petition (e.g., as part of its authorization petition submitted to EPA under § 271.5 of this chapter or by a separate submission) EPA to allow the use of used oil (that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability) as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as a dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

(c) *List of States.* [Reserved]

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40 CFR Parts 260, 261, 266, 271 and 279
Hazardous Waste Management System; Identification and
Listing of Hazardous Waste; Recycled Used Oil Management
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[FRL-4153-6]
RIN: 2050-AC17

57 FR 41566

September 10, 1992

ACTION: Final rule.

SUMMARY: The Agency is promulgating a final listing decision for used oils that are recycled and is simultaneously promulgating standards for the management of used oil under RCRA section 3014. EPA has made a final listing decision for used oils that are recycled based upon the technical criteria provided in sections 1004 and 3001 of RCRA. EPA determined that recycled used oil does not have to be listed as a hazardous waste since the used oil management standards issued in this rulemaking are adequately protective of human health and the environment. These standards cover used oil generators, transporters, processors and re-refiners, burners, and marketers. These standards are promulgated under the authority of section 3014 of RCRA and will be codified in a new part 279 of chapter 40 of the Code of Federal Regulations. When these management standards go into effect, service station dealers who collect used oil from do-it-yourself (DIY) generators and who are in compliance with the standard promulgated, may be eligible for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) section 114(c) liability exemption. EPA is continuing to evaluate the potential hazards associated with management of used oil. When this analysis is completed, the Agency will publish Notice(s) of Data Availability in the Federal Register over the next several months, as necessary. EPA will also, at that time, solicit opinion from the public on what, if any, additional steps may be necessary regarding used oil management.

EFFECTIVE DATE: March 8, 1993.

ADDRESSES: The regulatory docket for this rulemaking is available for public inspection at room 2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 from 9 a.m. to 4 p.m., Monday through Friday, except for Federal holidays. The docket number is F-92-UO2F-FFFFF. The public must make an appointment review docket materials by calling (202) 260-9327. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost \$.20 per page.

FOR FURTHER INFORMATION CONTACT: For general information contact the RCRA Hotline, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Telephone (800) 424-9346 (toll free) or, in the Washington, DC metropolitan area at (703) 920-9810.

For information on specific aspects of this rule, contact Ms. Rajani D. Joglekar, telephone (202) 260-3516, or Ms. Eydie Pines, telephone (202) 260-3509, U.S. EPA, 40 M Street SW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

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I. Authority

This regulatory decision and the regulations promulgated today are issued under the authority of sections 1004, 1006, 2002, 3001, 3014, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and as amended by the Used Oil Recycling Act, as amended, 42 U.S.C. 6901, 6905, 6912(a), 6921 through 6927, 6930, 6934, 6935, 6937 through 6939 and 6974.

II. Background

A. Authorities and Regulations Covering Used Oil Management

1. Statutory Authority

Section 3014 of RCRA requires EPA to establish standards applicable to recycled used oil that will protect public health and the environment and, to the extent possible within that context, not discourage used oil recycling. Section 3014 was added to the RCRA statute by the Used Oil Recycling Act (UORA) of 1980. The UORA required the Agency to establish performance standards and other requirements "as may be necessary to protect the public health and the environment from hazards associated with recycled oil" as long as such regulations "do not discourage the recovery or recycling of used oil."

The Hazardous and Solid Waste Amendments of 1984 (HSWA) reemphasized that the protection of human health and the environment was to be of primary concern in the regulation of hazardous waste. Specific to used oil, HSWA slightly altered the language of RCRA section 3014 to direct the Administrator to promulgate regulations may be necessary to protect human health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil consistent with the protection of human health and the environment. (Emphasis added to highlight HSWA language amending RCRA section 3014(a).)

EPA is therefore directed to promulgate standards for the handling and management of recycled oil. Section 1004 of RCRA, in defining the term "recycled oil," includes used oil being reused for any purpose, including used oil being re-refined or being processed into fuel. EPA believes that section 3014 also provides authority for establishing management standards that specifically include used oil being stored, collected or otherwise managed prior to recycling.

2. Regulatory Actions Related to Used Oil

On December 18, 1978, EPA initially proposed guidelines and regulations for the management of hazardous wastes as well as specific rules for the identification and listing of hazardous wastes under section 3001 of the Resource Conservation and Recovery Act (RCRA) (43 FR 58946). At that time, EPA proposed to list waste lubricating oil and waste hydraulic and cutting oil n1 as hazardous wastes on the basis of their toxicity. In addition, the Agency proposed recycling regulations to regulate (1) the incineration or burning of used lubricating, hydraulic, transformer transmission, or cutting oil that was hazardous and (2) the use of waste oils in a manner that constituted disposal. n2

n 1 The term "waste oil" included both used and unused oils that may no longer be used for their original purpose.

n 2 "Use in a manner constituting disposal" means the placement of hazardous waste directly onto the land in a manner constituting disposal or the use of the solid waste to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land [40 CFR 261.2(c)(1)]

In the May 19, 1980 regulations (45 FR 33084), EPA decided to defer promulgation of the recycling regulations for waste oils to consider fully whether waste- and use-specific standards may be implemented in lieu of imposing the full set of Subtit

C regulations on potentially recoverable and valuable materials. At the same time, E deferred the listing of waste oil for disposal so that the entire waste oil issue could be addressed at one time. Under the May 19, 1980 regulations, however, any was oil exhibiting one of the characteristics of hazardous waste (ignitability, corrosivity, reactivity, and toxicity) that was disposed, or accumulated, stored, or treated prior to disposal, became regulated as a hazardous waste subject to all applicable Subtitle C regulations.

As explained above, HSWA made protection of human health and the environment the prominent concern in the Agency's regulatory decisions for used oil and required EPA to propose whether to identify or list used automobile and truck crankcase oil by November 8, 1985. HSWA also required EPA to make a final determination as to whether to identify or list any or all used oils by November 8, 1986. On November 29, 1985 (FR 49258), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern from contamination during use and adulteration after use. Also on November 29, 1985, the Agency proposed management standards for recycled used oil (5 FR 49212) and issued final regulations, incorporated at 40 CFR part 266, subpart E, prohibiting the burning of off-specification used oil fuels n3 in non-industrial boilers and furnaces (50 FR 49164). Marketers of used oil fuel and industrial burner of off-specification fuel are required to notify EPA of their activities and to comply with certain notice and recordkeeping requirements. Used oils that meet the fuel oil specification are exempt from most of the 40 CFR part 266, subpart E regulations.

n 3 Used Oil that exceeds any of the following specification levels is considered to be "off-specification" used oil under 40 CFR 266.40(e): Arsenic -- 5 ppm, Cadmium -- 2 ppm, Chromium -- 10 ppm, Lead -- 100 ppm, Flash Point--100 deg.F minimum, Total Halogens -- 4,000 ppm.

On March 10, 1986 (51 FR 8206), the Agency published a Supplemental Notice requesting comments on additional aspects of the proposed listing of used oil as hazardous waste. In particular, commenters to the November 29, 1985, proposal suggested that EPA consider a regulatory option of only listing used oil as a hazardous waste when disposed, while promulgating special management standards for used oil that is recycled.

On November 19, 1986, EPA issued a decision not to list as a hazardous waste used oil that is recycled (51 FR 41900). The Agency determined that used oil being recycled should not be listed as a hazardous waste under RCRA. The EPA stated in the November 1986 decision that the Agency intended to issue recycled used oil management standards and was conducting studies necessary to determine what standards are appropriate under § 3014 of RCRA and to determine whether used oil being disposed of should be listed as a RCRA hazardous waste, or regulated under other statutes. At that time, it was the Agency's belief that the stigmatic effects associated with a hazardous waste listing might discourage the recycling of used oil, thereby resulting in increased disposal of used oil in uncontrolled manners. EPA stated that several residues, wastewaters, and sludges associated with the recycling of used oil may be evaluated to determine if a hazardous waste listing was necessary, even if used oil was not listed as a hazardous waste. EPA also outlined a plan that included making the determination whether to list used oil being disposed as hazardous waste and promulgation of special management standards for recycled oil.

EPA's decision not to list used oil as a hazardous waste based on the potential stigmatic effects was challenged by the Hazardous Waste Treatment Council, the Association of Petroleum Re-refiners, and the Natural Resources Defense Council. The petitioners claimed that (1) the language of RCRA indicated that in determining whether to list used oil as a hazardous waste, EPA may consider technical characteristics of hazardous waste, but not the "stigma" that a hazardous listing might involve, and (2) that Congress intended EPA to consider the effects of listing on the recycled oil industry only after the initial listing decision.

On October 7, 1988, the Court of Appeals for the District of Columbia found that EPA acted contrary to law in its determination not to list used oil under RCRA section 3001 based on the stigmatic effects. (See Hazardous Waste Treatment Council v. EPA, 861 F.2d 270 (D.C. Cir. 1988) [HWTC I].) The court ruled that EPA must determine

whether to list any used oils based on the technical criteria for waste listings specified in the statute.

After the 1988 court decision, EPA began to re-evaluate its basis for making a listing determination for used oil. EPA reviewed the statute, the proposed rule, and the many comments received on the proposed rule. Those comments indicated numerous concerns with the proposed listing approach. One of the most frequent concerns voiced by commenters was related to the quality and "representativeness" of the data used by EPA to characterize used oils in 1985. Numerous commenters indicated that "their oil were not represented by the data and, if they were represented, those oils were characterized after being mixed with other more contaminated oils or with other hazardous wastes. Many commenters submitted data demonstrating that the used oils they generate, particularly industrial used oils, did not contain high levels of toxicant of concern.

In addition, the Agency recognized that much of the information in the 1985 used oil composition data was more than five years old, as most of the information was collected prior to 1985. Since the time of that data gathering effort, used automotive oil composition may have been affected by the phase-down of lead in gasoline. The Agency also recognized the need to collect analytical data addressing specific classes of used oils as collected and stored at the point of generation (i.e., at the generator's facility).

Finally, the promulgation of the toxicity characteristic (TC) (55 FR 11798, March 29, 1990) is known to identify certain used oils as hazardous waste. Due to the possibility of changes in used oil composition since the Agency's 1985 proposed listing decision and the new TC, the Agency recognized that additional data on used oil characterization may be needed prior to making a final hazardous waste listing determination.

On September 23, 1991, EPA published a Supplemental Notice of Proposed Rulemaking for the identification and listing of used oil and for management standards for recycled used oil (56 FR 48000). The 1991 Supplemental Notice presented supplemental information gathered by EPA and provided to EPA by individuals commenting on previous notices on the listing of used oil and used oil management standards. As discussed above, numerous commenters on the 1985 proposal to list used oil as hazardous contended that the broad listing of all used oils unfairly subjects them to stringent Subtitle C regulations because their used oils are not hazardous. Based on those comments, the Agency collected a variety of additional information regarding various types of used oil, their management, and their potential health and environmental effects when mismanaged. The 1991 Supplemental Notice presented this new information to the public and requested comment on the information, particularly if and how the information suggests new concerns that EPA should consider in deciding whether to finalize all or part of its 1985 proposal to list used oil as a hazardous waste.

In addition, the 1991 Supplemental Notice expanded upon the November 29, 1985 (50 FR 49258) proposal to list used oils as hazardous and the March 10, 1986 (51 FR 8206) Supplemental Notice by discussing regulatory alternatives not previously presented in the Federal Register. Based on the public comments received relative to these two notices, the Agency investigated several important aspects of used oil regulation. The Supplemental Notice also contained a request for comments on additional issues related to the "mixture rule" (40 CFR 261.3(a)(2)(iii)), on test methods for determining halogen levels in used oils, and on new data on the composition of used oil and used oil processing residuals. For these aspects, the Agency identified alternative approaches that were not presented explicitly in the earlier notices. Those new alternatives were presented in the 1991 Supplemental Notice.

The 1991 Supplemental Notice also discussed the Agency's proposal to amend 40 CFR 261.32 by adding four waste streams from the reprocessing and re-refining of used oil to the list of hazardous wastes from specific sources. The wastes from the reprocessing and re-refining of used oil include process residuals from the gravitational or mechanical separation of solids, water, and oil (K152); spent polishing media used to finish used oil (K153); distillation bottoms from used oil processing and re-refining (K154); and treatment residues from primary wastewater treatment (K155).

The 1991 Supplemental Notice also included a description of some of the management standards (in addition to or in place of those proposed in 1985) that EPA considered in promulgating today's final rule.

On May 20, 1992, EPA proposed a Hazardous Waste Identification Rule describing two alternative approaches for hazardous waste identification under RCRA. The first proposed approach would establish concentration based exclusion criteria (CBEC) for listed hazardous wastes, waste mixtures, derivatives, and contaminated media. The second approach an expanded characteristic option (ECHO) would establish "characteristic" levels for listed hazardous wastes, waste mixtures, derivatives, and contaminated media. (57 FR 21450). Depending upon which approach the Agency finalizes the manner in which EPA regulates mixtures of used oil and hazardous waste may change.

B. Summary of May 20, 1992 Federal Register Notice (Final Listing Decision for Used Oils Destined for Disposal)

On May 20, 1992, EPA published a final rule that addressed the listing of used oil that are disposed, excluded non-terne plated used oil filters that have been drained to remove used oil from the definition of hazardous waste, and deferred a final listing determination on residuals from the processing and re-refining of used oil (FR 21524). Four separate actions were taken and are discussed below.

First, the Agency promulgated a final decision not to list used oils destined for disposal. This decision was based primarily upon the finding that all used oils do not typically and frequently meet the technical criteria for listing a waste as hazardous. In making the final listing determination for used oil destined for disposal, EPA also gave considerable attention to the current federal regulations governing the management of used oils that are disposed. EPA evaluated the technical criteria for listing in light of the current regulatory structure that controls the management of used oils and concluded that any plausible mismanagement of used oil that is destined for disposal is addressed by current requirements. Existing regulations that cover used oil destined for disposal are discussed briefly at the end of this section. In addition, if a used oil that is destined for disposal exhibits a characteristic, it is regulated as a hazardous waste under subtitle C.

Second, the Agency decided to defer a decision on listing and management standard for used oil that is recycled (this decision is included in today's rule).

Third, the Agency promulgated a final exemption from the definition of hazardous waste in § 261.4 for certain used oil filters. The filters that received the exemption are non-terne-plated used oil filters that have been hot-drained to remove used oil. (Terne is an alloy of tin and lead.) Hot-drained means draining used oil from a filter while the engine is at operating temperature, when oil flows easily. Based on data submitted to EPA, non-terne-plated, hot-drained used oil filters do not typically and frequently exhibit the Toxicity Characteristic.

Fourth, the Agency announced its deferral of a final decision on whether or not to list residuals from the processing and re-refining of used oil. The Agency stated that it will continue to evaluate the composition of used oil recycling residues and the management of these residues. The reason for continued evaluation of residuals is that recycling techniques and waste management practices that evolved during the past six years have resulted in residual composition changes.

C. Current Federal Regulations Governing Disposal of Used Oil

Currently, there are several regulatory programs in place to control the storage and transportation of used oil, to protect against releases to the ground, ground water, and surface waters, to protect against improper disposal of used oils, to prevent the burning of used oils with high levels of toxic constituents in certain units, and to control the management of used oils containing PCB's. Several of these programs have been proposed and/or promulgated since 1985, and some have been in place since before 1985. The Agency has decided that these current regulations are protective, but are not complete or sufficient to protect human health and the environment from potential mismanagement of used oils that are recycled. Therefore,

addition to the existing regulations, used oil handlers will have to comply with additional management standards that EPA is promulgating today, such as recordkeeping and analysis requirements, and a requirement for containment consisting of impervious floor and dikes/berms. The current regulatory programs are described below.

The storage of used oil in underground tanks is controlled under subtitle I of RC (40 CFR part 280). These regulations require that underground tanks be properly maintained, operated, protected from corrosion, and that any spills are properly cleaned up. Other existing storage tank standards are found under the Clean Water Act Spill Prevention Control and Countermeasures (SPCC) requirements. SPCC requirements regulate the storage of materials, including used oil, in aboveground and in underground tanks under certain circumstances. The Clean Water Act also requires reporting of releases of oil into navigable waters if a sheen appears on the water, any water quality standards are violated, or if a sludge is deposited beneath the surface of the water. The recently enacted Oil Pollution Act revised the SPCC requirements of the Clean Water Act.

Regulations promulgated pursuant to MARPOL 73/78, Annex I, act to control shipboard management of used oil and releases of used oil to navigable waters. Bilge slops are commonly generated waste on-board ships that contain used oil; MARPOL prevents this waste from being discharged into the sea in an unrestricted manner.

The transport of used oil is regulated under the Department of Transportation's Hazardous Materials Transportation Act (HMTA). Used oil that meets the criteria for being "combustible" or "flammable" is regulated under DOT requirements for classification, packaging, marking, labeling, shipping papers, placarding, recordkeeping and reporting.

The burning of used oil for energy recovery is subject to existing standards under RCRA (40 CFR part 266, subpart E). These standards include requirements for marketer of used oil, such as notification, analysis, recordkeeping, and invoices for each shipment. Off-specification used oil must be burned in industrial boilers or furnace only. The "specification" levels for used oil that will be burned for energy recover include levels for metals, halogens, and flash point. These existing standards promulgated in 1985 are recodified in part 279 today.

The manufacture, use, import, and disposal of polychlorinated biphenyls (PCBs) in used oils are controlled under the Toxic Substances Control Act (TSCA). TSCA control the manufacture, import, use, and disposal of oils containing over 50 ppm PCBs. In addition, TSCA requires reporting of any spill of material containing 50 ppm or greater PCBs, into sewers, drinking water, surface water, grazing lands, or vegetable gardens. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires reporting of any 1-pound spill of PCBs into the environment. Note that used oils containing less than 50 ppm of PCBs are covered under RCRA.

Used oils that are contaminated with CERCLA hazardous substances (e.g., due to the presence of elevated levels of lead) are subject to CERCLA release reporting requirements. Therefore, releases of used oil containing such contaminants (e.g., lead) into the environment in quantities greater than the reportable quantity for the contaminant must be reported to the National Response Center. The current RQs for CERCLA hazardous substances are listed in 40 CFR 302.4. In addition, under 40 CFR part 110, any discharge of oil that violates applicable water quality standards or causes film or sheen on a water surface must be reported to the National Response Center.

As mentioned previously, used oil handlers will have to comply with all existing regulations (including any applicable State and local regulations), and in addition, the new management standards for recycled oil promulgated today. For the reasons discussed in more detail below, EPA believes that this network of regulations will be sufficient to ensure protection of human health and the environment.

III. Summary of Major Comments to 1985 Proposal and 1991 Supplemental Notice

A. Comments Received in Response to the 1985 Proposed Rulemaking

1. Comments on 1985 Proposed Listing Decision

On November 29, 1985 (50 FR 49239), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern as a result of contamination during and adulteration after use. In 1985, the Agency also proposed special management standards for used oils that are recycled. Essentially, used oils that are disposed would have been subject to full subtitle C regulation, while recycled used oils could be managed in accordance with the proposed management standards developed and proposed under the authority of RCRA § 3014.

Many comments were received on the various aspects of the proposed listing of used oil, which are summarized as follows. Most commenters opposed the listing of used oil as a hazardous waste. The reasons given included that EPA's sampling was unrepresentative and flawed (i.e., used oil samples were taken from storage tanks at used oil facilities rather than from the point of generation), used oil is no more hazardous than virgin oil, and the belief that the levels of constituents EPA found used oils that were sampled and analyzed do not present a threat to human health. So commenters asserted that EPA's concern is not with used oil itself but the mixing of used oil with other constituents that may render the used oil hazardous only because of post-use adulteration. Therefore, instead of listing all used oils, commenters recommended that EPA should list used oils as hazardous only if other substances have been added after the oil's initial use.

A large number of commenters challenged the scope of the listing (i.e., definition) and provided a number of examples where certain used oils should not be included in the listing because they do not contain constituents of concern at concentrations exceeding health-based levels that would cause the used oil to be listed. Some commenters proposed that only those used oils that contain toxic constituents, such as lead, arsenic, cadmium, chromium, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, toluene, and naphthalene, should be included in the listing. A number of commenters requested that in the proposed definition of used oil, the phrase "but is not limited to" should be stricken because it creates tremendous uncertainty as to what constitutes a used oil. Commenters also challenged EPA and indicated that the Agency exceeded its statutory authority by including synthetic and other non-petroleum derived used oils in the definition of used oil. Commenters also requested that used oil destined for recycling be excluded from the definition of used oil. A few commenters also requested that food grade oils be excluded because the Food and Drug Administration regulates these oils and requires that they meet health standards based on human consumption because they may contact food products. A number of commenters requested that EPA exclude dielectric waste oil from the listing because electrical equipment is not a source of the contaminants of concern and that dielectric oils are already controlled by the Toxic Substances Control Act.

A number of commenters expressed concern regarding EPA's proposed regulatory scope of mixtures of used oil and other materials. The commenters were mixed on their support of EPA's proposed exclusion for rags contaminated with used oil. Those that supported the exemption stated that as long as a rag contains no free liquid, as determined by the paint filter test, it presents a minimal threat to human health or the environment. These commenters also expressed the belief that there should be no set concentration limit for used oil in rags, but the exclusion should be based on whether the rag contains free liquids. Those that opposed the exclusion indicated that contaminated rags can contain significant quantities of PCBs and other toxic constituents and therefore present a risk to health.

Many commenters supported EPA's proposal to exempt wastewaters containing de minimis amounts of used oil from the definition of hazardous waste. However, commenters stated that no set concentration limit should be established as a de minimis level. A few commenters opposed this exclusion on the grounds that it could present a threat to human health and the environment. Some commenters requested that the halogen level promulgated as part of the rebuttable presumption for used oil fuel be increased because de minimis amounts of solvents may inadvertently become mixed with used oil.

There was overwhelming support to exempt mixtures of sorptive minerals and used oil. However, some commenters requested that the word minerals be replaced with

materials. The commenters' rationale was that minerals are actually adsorbents, meaning attracted to the surface, whereas other materials, such as treated wood and paper fiber, are absorbents, meaning becoming part of the material and more difficult to remove. Thus, these commenters asserted, non-mineral sorbent materials also would pose no risk to the environment.

2. Major Comments on 1985 Proposed Management Standards for Recycled Used Oil

On November 29, 1985 (50 FR 49212), EPA proposed a comprehensive set of management standards for various entities handling used oils. These proposed standards were tailored after the hazardous waste management standards of subtitle C, and included requirements for notification, tracking, recordkeeping, preparedness and prevention, testing, storage, and closure. The handlers included generators, transporters, recyclers, marketers, burners, and road oilers.

a. Generator Standards. Concerning management standards for generators, commenters were generally supportive of EPA's proposed regulations except for the following comments relating to specific provisions. Commenters expressed concern that the quantity limit for small quantity generators was too low. Commenters also advocated change from determining a generator's regulatory status on a monthly basis to a 12-month average limit to account for periodic and/or seasonal variations in generation patterns. Commenters thought that the proposed 90-day time limit on accumulation did not provide enough time for generators to accumulate a full tank of used oil. Because some facilities generate small amounts of used oil, some commenters felt that a 180- or 270-day time limit would be more appropriate.

One commenter stated that the requirement to empty a leaking or otherwise unfit service tank within 24 hours is unreasonable and more strict than the hazardous waste requirements. One commenter stated that it is unreasonable to require that whenever a leak in a tank system occurs, the whole tank system must then be subject to the standards for new tank systems. An example of this inequity, provided by the commenters, could occur if the tank system develops a leak because of a faulty gasket and then the whole system has to be replaced rather than merely replacing the gasket. A few commenters expressed the opinion that the proposed standards for used oil storage tanks far exceed the necessary standards for protection of human health and the environment. Some commenters stated that requiring secondary containment for new installed tanks beyond the SPCC requirements amounted to regulatory overkill. One commenter requested EPA to provide clarification on the definition of tank because many tank-like structures may be pulled into the system although they may not warrant regulation. Many commenters expressed concern that the regulation of storage in underground tanks under RCRA § 3014 would be duplicative of the standards promulgated under Subtitle I of RCRA. Many commenters disagreed with EPA that ground-water monitoring provides a superior approach to leak detection.

b. Transporter Standards. Some commenters thought that the 10-day time limit for storing used oil at transfer facilities was an inadequate period of time for transporters to accumulate and consolidate sufficient quantities of used oil. One commenter requested that an exemption be provided for generators that transport used oil from isolated locations to a central storage site, which would reduce the regulatory burden on oil and gas production operations, contract drillers, gas processors, and pipeline operators.

Commenters expressed concern with the requirement proposed in 1985 that collectors provide recycling facilities with lists of their customers. This could lead to solicitation of the collector's customers by used oil recyclers, which could adversely impact the collectors.

c. Recycling Facility Standards. A few commenters requested that EPA allow for the co-management of used oil with hazardous waste under a permit-by-rule rather than requiring such facilities to apply for and obtain a modification to their existing Subtitle C operating permit. Commenters also challenged the fact that while EPA required analysis of halogens, there is no EPA-approved test method for halogens. So commenters also objected to the proposed requirement that facilities that manage both used oil and other hazardous wastes test their used oil for indicator parameters for each hazardous waste stream. Although many comments were received concerning testing

frequencies, commenters generally did not agree on any particular frequency or on whether or not the Agency should impose a set testing frequency.

EPA received many comments both for and against the proposed requirements that us oil recycling facilities that are not in compliance with the permit-by-rule provision on the effective date of the rule comply with the interim status provisions of 40 CFR part 265. A few commenters pointed out that corrective action for releases of used oil to the environment was not adequately addressed in the 1985 proposed rulemaking.

d. Dust Suppression. The commenters were generally in favor of banning used oil from dust suppression. One commenter requested that EPA consider a case-by-case approval of used oil as a dust suppressant provided the activity is permitted and waste analysis is conducted. A state agency recommended that the dust suppression ban be extended to refined oil and oil/water mixtures.

B. Comments Received in Response to 1991 Supplemental Notice

1. Listing Used Oil

The Supplemental Notice of September 23, 1991 (56 FR 48041), presented three options for identifying used oil as a hazardous waste. Option One was to list all used oils as proposed on November 29, 1985 (50 FR 49239), based on the potential for adulteration during use and environmental damage when mismanaged. Option Two was to list categories of used oil that were found to be "typically and frequently" hazardous because of the presence of lead, PAHs, arsenic, cadmium, chromium, and benzene. "Typically and frequently" was defined to mean that 50 percent or more of the sample in a used oil category exceeded the levels of concern. Under Option Three, the Agency proposed not to list used oils as hazardous, but rely on management standards developed under section 3014 of RCRA to control mismanagement of oil.

Commenters overwhelmingly supported Option Three, not to list used oil as a hazardous waste, but rely on management standards. Many of these commenters suggested that EPA should encourage recycling through education, collection, and management standards instead of a hazardous waste listing. Many commenters expressed concern that listing used oil would have a negative effect on the used oil recycling system. These commenters stated that due to excessive liability and disposal costs associated with handling hazardous wastes, they would be forced out of business or out of the used oil management system. They stated that this would result in having fewer collection centers resulting in decreased acceptance of DIY-generated used oil, and may lead to further mismanagement. A few commenters pointed out that their lease prohibits the handling of hazardous materials or wastes and the listing of used oil as a hazardous waste would thus force them out of business or require them to negotiate a costly new lease. Additionally, some commenters, primarily service stations and oil changers, are currently voluntarily accepting DIY-generated used oil. They stated that listing used oil as a hazardous waste would lead to the discontinuation of this service because of the potential liability and the increased cost of handling used oil.

Some commenters noted that DIY-generated used oil presents the biggest threat to human health and the environment because it is often disposed of improperly. Another view point shared by many commenters was that used oil is a resource that is recyclable as lube oil feedstock or as a fuel substitute, and EPA should not designate a valuable commodity as hazardous waste.

A few commenters stated that used oil should not be listed because it is no longer hazardous due to EPA's lead phase-down program. In addition, EPA's analyses of used oil were based on too few samples and these were unrepresentative of actual conditions. Some commenters expressed a reluctance to have EPA list used oil as a hazardous waste, but urged EPA, if used oil is to be listed, to list only those used oils that are disposed and not list used oils that are recycled.

A few commenters supported the proposal to list all used oils as hazardous waste. They stated that used oil has been historically mismanaged and presents a threat to human health and the environment. In addition, they referenced the "California experience" in support of listing. These commenters said that when California listed used oil as a hazardous waste, the resulting recycling program within the state

increased the amount of used oil entering the used oil management system.

2. De Minimis Mixtures

EPA proposed exempting wipers, sorptive minerals, and oil filters that have been drained of free-flowing used oil from the definition of hazardous waste, if used oil were listed as a hazardous waste. EPA expressed its belief that many of these materials may not pose a threat to human health and the environment because of the very small quantities of used oil involved. The Agency also proposed the "one-drop" standard for determining whether or not free-flowing used oil is present in the mixtures.

The commenters were nearly unanimous in support of EPA's proposal to exclude wipe and sorptive minerals contaminated with small amounts of used oil from the proposed listing. A number of commenters requested EPA to expand the definition of sorptive minerals beyond the current definition of clay and diatomaceous earth to include synthetic adsorbents and other natural filter/absorbent media. A few commenters requested clarification as to the status of laundered clean wipers that do not contain free flowing used oil. A few commenters requested a clarification concerning recycling of used oil mixtures with high BTU value and instances where used oil cannot be separated from the mixture for burning a mixture as a used oil fuel.

3. Controlling Disposal of Used Oil

EPA believes that certain used oils may require disposal because they can not be recycled. In cases where the used oil is not recyclable and the disposal of the used oil is not controlled under the current subtitle C regulations (e.g., because the used oil does not exhibit a hazardous waste characteristic), EPA wants to ensure that used oils are disposed of in an environmentally safe manner. EPA therefore requested comment on the appropriateness of developing guidelines for the disposal of used oil and the appropriateness of a total ban on the disposal of used oil.

Commenters supported EPA's proposal to develop specific guidelines for the disposal of nonhazardous oil under § 1008 of RCRA. Some commenters urged EPA not to impose a total ban on the disposal of nonhazardous oil. This is because some materials (e.g., contaminated soil) can not be disposed elsewhere in an economically acceptable fashion. Some commenters supported a total ban on disposal of used oil mainly to ensure protection of the ground water and as a method to promote recycling of all used oils.

4. DIY-Generated Used Oil

RCRA does not provide the authority to regulate household-generated waste prior to collection (e.g., DIY-generated oil and filters), nor does it give EPA the authority to mandate collection programs for DIY-generated used oil. Over the past five years, EPA has developed public informational brochures to encourage DIY generators to recycle their used oil. EPA may develop more educational materials for the public and the regulated community on used oil recycling alternatives. EPA therefore requested comments on how to improve the recycling of DIY-generated used oil.

Many suggestions were received on ways EPA could encourage the acceptance and recycling of DIY-generated used oil. A majority of commenters, however, said that listing used oil as a hazardous waste would discourage recycling of DIY-generated used oil, primarily because many facilities indicated that they would no longer accept DIY-generated used oil because of the liability associated with collecting and handling hazardous waste. A state government agency stated that a primary reason service stations are not accepting DIY-generated used oil is the uncertainty over the past few years of whether EPA will list used oil as a hazardous waste and thus, require generators that have used oil on hand to pay for its disposal. Commenters indicated that the primary reason for the poor recycling rate of DIY-generated used oil is because of the lack of collection centers. Some major suggestions included the implementation of a curbside pickup program for DIY-generated used oil, requiring an entity selling motor oil to collect DIY-generated used oil, ensuring that used oil collection facilities be exempted from CERCLA liability requiring retailers to list nearby used oil collection centers, and establishment of a deposit-refund system.

5. Criteria for Recycling Presumption

EPA proposed to establish a presumption that all used oils, once collected, would be recycled and, therefore, would be subject to the proposed used oil recycling standards. However, EPA is aware of certain categories of used oils (e.g., watery metalworking oils, oily bilge water) that may not be recyclable. Most used oils can be processed and treated to manufacture either burner fuel, lube oil base stock, or feedstock for refining. However, EPA gave consideration to providing an opportunity for used oil handlers to rebut the used oil recycling presumption and avoid compliance with the used oil recycling standards by documenting that their used oil is not recyclable in any manner. EPA requested comments on the suggested procedures for rebutting the recycling presumption and appropriate documentation.

The commenters were nearly unanimous in their support of the recycling presumption. However, the comments were mixed concerning the criteria for "recyclability" and the appropriate documentation. One commenter suggested that a one-time certification on the recyclability of a waste stream is adequate, assuming the facility's waste management plan does not change. Many of the commenters were supportive of the criteria EPA listed for determining recyclability, which included BTU content, water content, degree of emulsification, degree of viscosity, and the availability of economically and geographically acceptable recyclers. However, two commenters (refiners) stated that since none of the five criteria were examples of nonrecyclability and that all used oil can be recycled, whether used oil is actually recycled is strictly a matter of cost. One commenter questioned whether EPA had the authority to assume that all used oil was recyclable and, if not, to require certification and documentation.

Commenters were generally in agreement concerning the documentation requirements for the recycling presumption. There were only a few specific comments on the issue. One commenter suggested that a generator should not be allowed to determine recyclability but this should be the responsibility of a recycling facility. Another commenter suggested that documentation should be kept on-site and should not have to be sent to EPA.

6. Ban on Use as a Dust Suppressant

On November 29, 1985 (50 FR 49239), EPA proposed to ban the use of used oil as a dust suppressant (road oiling). The September 23, 1991, Supplemental Notice (56 FR 48041) stated that regardless of whether EPA lists used oils as a hazardous waste, EPA was still considering the ban of all used oils used for dust suppression. Specific comment was requested on how used oils could be used for dust suppression in an environmentally safe manner.

Most of the commenters supported the ban on using any used oil for dust suppression. Many of these commenters stated that used oil should not be used for road oiling given the potential adverse impact to water resources due to run-off. One commenter pointed out that surfactant additives in motor oil are generally anionic which prevents oil from bonding strongly to most negatively charged aggregate particles resulting in massive run-off. All of the state agencies commenting on this issue supported a ban.

Some commenters suggested that EPA should allow used oil to be used for dust suppression if it meets certain criteria such as not failing a characteristic test or the specification criteria for used oil fuel. Other commenters requested that nonhazardous used oil be allowed for road oiling. A few commenters urged the allowance of water contaminated with de minimus amounts of used oil to be used for dust suppression. On a related matter, some commenters wanted to know whether use of used oil for insect control or as a weed killer is allowed.

7. CERCLA Liability Issues

Section 114(c) of CERCLA contains the service station dealer's exemption from liability under the statute for used oil. To be eligible for the exemption, service stations are required to comply with the section 3014 of RCRA used oil management

standards and accept DIY-generated used oil. EPA requested comment on how to ensure that small quantity generators could be eligible for this exclusion if they were conditionally excluded from most of the regulatory requirements similar to subtitle

The commenters were in agreement that the service station exclusion contained in section 114(c) of CERCLA should be implemented. Many commenters encouraged EPA to include facilities that collect DIY-generated used oil (e.g., public facilities), regardless of whether they are service stations, to promote recycling of the DIY use oil segment. A commenter requested that EPA clarify that "quick oil change and lubrication facilities" are in the definition of "service station dealers" and that "used oil destined for recycling" should be included instead of just "recycled" used oil. One commenter requested that refiners and downstream users be included in the definition of service station to obtain the CERCLA liability exemption.

Many commenters expressed support for the elimination of generator category distinction (i.e., small quantity generators versus large quantity generators). In addition to the reduction in confusion and handling requirements for used oil, these commenters noted that all generators could then benefit from the CERCLA liability exemption.

8. Storage

EPA proposed different requirements for storage for different segments of the use oil industry to respond to the potential risks associated with used oil handling. EPA requested comment on storage standards to address the potential hazards associated with used oil. EPA did not propose requirements for underground tanks used to store used oil, because the Agency believes that the current requirements for USTs in 40 C part 280 appear to be adequate.

Most commenters supported EPA's basic intent to establish minimum technical standards for the storage of used oil. A number of commenters supported the requirement that all generators should comply with minimal technical standards and that there should be no exclusion for small quantity generators; however, some opposed this approach and supported a distinction between generators based on the amount of used oil generated. The majority of commenters requested that the proposed requirements for daily inspections should be reduced to weekly, biweekly, or monthly. A number of commenters were against the proposed 50-foot buffer zone requirement primarily because it would be impossible for quick lube facilities to implement this requirement due to the limited size of their facility and it would be inappropriate because of the low flash point of motor oil. An alternative that was suggested was for facilities to comply with the NFPA's "Flammable and Combustible Liquids Code" for buffer zones. One commenter suggested that satellite accumulation areas that are exempt from the storage standards be allowed. One commenter pointed out that a definition and requirement for a continuously fed tank is necessary.

9. Secondary Containment for Tanks

EPA requested comment on its proposal to require Spill Prevention, Control and Countermeasure (SPCC)-recommended secondary containment or to require RCRA subtitle secondary containment requirements for controlling releases and spills of used oil from aboveground storage tanks at used oil processing and re-refining facilities. The SPCC options include berms, dikes, or retaining walls along with an oil-impervious floor designed to contain used oil and avoid significant contamination of soil and nearby surface and ground water resources.

Most of the commenters agreed with EPA's proposal to require SPCC-recommended secondary containment but were not supportive of also requiring subtitle C secondary containment requirements for aboveground storage tanks. A few commenters noted that requiring compliance with subtitle C would not add a significant margin of safety compared to the cost of upgrading the tanks. Commenters argued that most of the aboveground storage tanks are already in compliance with SPCC and, with few exceptions, these requirements have been an acceptable vehicle for protecting human health and the environment. One commenter supported the measure to require owners/operators storing used oil in aboveground storage tanks to comply with both SPCC and subtitle C requirements. Their rationale was that such requirements address

different management issues and are not unreasonably burdensome.

10. Financial Responsibility

In the 1985 proposed rule, used oil recycling facilities were to be subject to the subtitle C financial responsibility requirements (50 FR 49256). Many comments that were received on this proposal suggested that such requirements would have detrimental effects on the used oil recycling market. In the September 1991 Supplemental Notice, EPA requested comment on deferring the requirements.

The commenters were nearly evenly divided on EPA's proposal to defer the financial responsibility requirements for used oil recycling facilities. Those commenters that supported the deferral indicated that because recyclable used oil has economic value there is an incentive to move as much oil as possible. These commenters also agreed with EPA's contention that requiring financial responsibility would impact the economic viability of used oil recyclers.

Those commenters that did not support EPA's proposal to defer the financial responsibility requirements questioned the practicality of requiring recyclers to comply with the closure and post-closure requirements while not requiring the financial mechanisms to ensure that these activities are done. A few commenters note that there are 63 used oil recycling sites listed on the National Priorities List, which indicates that financial responsibility requirements are necessary. A state agency urged EPA to require some level of financial responsibility because used oil, when mismanaged, presents as much risk to human health and the environment as any other hazardous waste.

11. Permit-By-Rule

In the 1985 proposed rule, EPA used the authority under section 3014 of RCRA to propose permitting requirements for used oil recycling facilities (50 FR 49225, 49257). RCRA section 3014(d) provides that owners and operators of used oil recycling facilities are deemed to have a permit for their recycling activities and associated tank and container storage, provided they comply with the used oil management standards promulgated by EPA. Thus EPA proposed that owners/operators of used oil recycling facilities would be eligible for a permit-by-rule eligibility, including those undertaken by facilities that recycle or store used oil in surface impoundment and facilities that manage other hazardous waste in addition to used oil (co-management facilities).

Most of the comments pertaining to the permit-by-rule proposal were not supportive of EPA's proposal based on many concerns. A number of commenters opposed EPA's proposal that only those facilities that did not manage other hazardous wastes should be eligible. Their contention was that section 3014 of RCRA did not expressly state that co-management facilities were ineligible. A few commenters were against the permit-by-rule concept altogether and favored a site-by-site permitting approach. A few commenters requested EPA to allow permit-by-rule only for facilities that handle nonhazardous oil and require those facilities that handled hazardous oil to comply with subtitle C. Some commenters were in support of EPA's proposed permit-by-rule requirements.

IV. Definition of Used Oil

EPA's 1985 proposal to list used oil as a hazardous waste included the following proposed definition of used oil:

"Used oil" means petroleum-derived or synthetic oil including, but not limited to oil which is used as a: (i) lubricant (engine, turbine, or gear); (ii) hydraulic fluid (including transmission fluid); (iii) metalworking fluid (including cutting, grinding, machining, rolling, stamping, quenching, and coating oils); (iv) insulating fluid or coolant, and which is contaminated through use or subsequent management.

During the 1985 comment period, many commenters criticized the vagueness of the proposed definition. One issue commenters raised was that it was unclear from the definition what constitutes "contamination." The use of the phrase "but not limited

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to" also was challenged. Commenters contended that such a phrase could be interpreted to include varieties of oil such as food grade oils within the definition of used oil. Commenters suggested that EPA specifically list in the definition the types of oils they intended to regulate.

Another point that commenters disputed about the definition of used oil was use of the term "or subsequent management." They pointed out that the statutory definition of used oil specifies contamination only "as a result of use," not via subsequent management. Used oils that become adulterated after use should be subject to management standards that discourage this practice. Commenters agreed that used oils contaminated with hazardous wastes should be subject to full subtitle C requirements.

Many commenters questioned the basis for including synthetic oils in the definition of used oil. The statutory definition of used oil does not explicitly include synthetic oils; therefore, commenters asserted that used synthetic oils should not be considered "used oils." Several comments were received regarding metalworking oils as well. Commenters requested that copper and aluminum wire drawing solutions be excluded from the definition of used oil. Copper drawing solution is an emulsion of 1 to 2 percent oil in water. Aluminum drawing solution is considered a neat oil (i.e., 100 percent oil). However, one commenter stated that aluminum drawing solution is nonhazardous and meets the EPA used oil fuel specification test.

EPA carefully evaluated the comments referring to synthetic oils, including those comments where the commenter submitted data. EPA has concluded that synthetic oils that are not petroleum-based (i.e., those produced from coal or oil shale), those that are petroleum-based but are water soluble (e.g., concentrates of metalworking oils/fluids), or those that are polymer-type, are all used as lubricants similar to petroleum-based lubricants, oils, and laminating surface agents. Upon use, synthetic oils become contaminated with physical or chemical impurities in a manner similar to petroleum-based lubricants. This contamination during (or as a result of) use is what makes used oil toxic or hazardous. Upon collection, these used oils are not distinguishable from non-synthetic used oils, except in the case of segregated, water-based metalworking oils/fluids. All used oils, in general, are managed in similar manners (e.g., burned for energy recovery, re-refined to produce lube oil feedstock, or reconstituted as recycled products). Therefore, EPA believes that all used oils, including used synthetic oils, should be regulated in a similar fashion and, hence, EPA has decided to include synthetic oils in the definition of used oil discussed below. For the large part, the definition of used oil includes used lubricants of all kinds that are used for a purpose of lubrication and become contaminated as a result of such use.

Today, EPA is promulgating a regulatory definition for "used oil" at 40 CFR 260.1 as follows:

Used oil means any oil that has been refined from crude oil, or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities.

This regulatory definition of used oil is drawn from the statutory definition of used oil found at section 1004(36) of RCRA and is similar to the current definition of used oil found at 40 CFR 266.40(b). EPA believes that this definition covers the majority of oils used as lubricants, coolants (non-contact heat transfer fluids), emulsions, or for similar uses and are likely to get contaminated through use. Therefore, specific types of used oils are not identified in the definition.

The definition includes all used oils derived from crude oil, as well as used synthetic oils that are contaminated by physical (e.g., high water content) or chemical (e.g., lead, halogens, or other toxic or hazardous constituents) impurities as a result of such use. However, with today's rule, EPA is interpreting the definition of used oil contained in the statute to include used synthetic oils, including those derived from coal or shale or from a polymer based starting material. The Agency explained its rationale for including synthetic oils in the definition of used oils in the preamble for the November 1985 proposed used oil listing (50 FR 49262). The Agency's position continues to be that synthetic oils should be included in the definition of used oil due to the fact that these oils are generally used for

the same purposes as petroleum-derived oils, are usually mixed and managed in the same manner after use, and present the same level of hazard as petroleum-based oils. In addition, the Agency believes that Congress could not envision how prevalent synthetic oils would become when it passed the UORA in 1980. Congress surely would not have intended a result where large amounts of vehicle engine oils are not covered by RCRA section 3014.

The commenter-submitted data concerning synthetic oils suggest that properties of synthetic oils that are polymer based are akin to oils produced from crude base stock and can be used effectively as crude oil substitutes. When used, they become contaminated with physical or chemical impurities and are not readily distinguishable from used oils that are crude oil based. Today's definition does not include oil-based products used as solvents refined from crude oil or manufactured from synthetic materials. The Agency has always viewed petroleum-based solvents as wastes separate and distinct from used oil. In the 1989 proposal for Land Disposal Restriction Standards, ignitable liquids encompass materials like solvents, paint thinners, contaminated oils, and various organic hydrocarbon. Some of these have been thought to contain organic constituents from the listed wastes F001-F005. (See 54 FR 48420, November 22, 1989.)

n 4 A letter from Mobil Corporation to EPA dated July 8, 1992. A report by Independent Lubricants Manufacturers Association, "Waste Minimization and Wastewater Treatment of Metalworking Fluids," 1990.

The definition of used oil promulgated today does not include used oil residues or sludges resulting from the storage, processing, or re-refining of used oils. EPA believes that the types and concentrations of hazardous constituents in used oil residues and sludges are different from those typically found in used oils, and therefore these residues and sludges warrant separate regulatory consideration. EPA is going to continue to study used oil residues and sludges, as well as all of the residuals from used oil re-refining activities. EPA may finalize the residual listing proposed in the 1991 Supplemental Notice or propose a listing determination for the specific used oil sludges and residuals in a future rulemaking. Residuals are covered under the existing RCRA regulations. Currently, these wastes are subject to the hazardous waste characteristics. If a residue, sludge, or residual resulting from used oil storage, processing, or re-refining exhibits one or more of the characteristics of hazardous waste, then it must be managed as a hazardous waste in accordance with all applicable Subtitle C requirements. However, as discussed later in this preamble, distillation bottoms derived from used oil re-refining are conditionally exempt from the used oil management standards promulgated today, as well as the Subtitle C hazardous waste regulations, when the distillation bottoms are used as ingredients in asphalt products. In the September 1991 Supplemental Notice, EPA proposed to list as hazardous waste several residuals from used oil processing and re-refining operations. Distillation bottoms were among the residuals that EPA proposed to list. Following the 1991 Notice, EPA received data from several commenters indicating that distillation bottoms from the processing and re-refining of used oil do not fail the toxicity characteristic. EPA has no other recent data on the composition or toxicity of these residuals. In addition, commenters have indicated that the use of distillation bottoms as ingredients in asphalt materials is a very common practice. Furthermore, distillation bottoms, when used as asphalt extender materials, also may be regulated under the Toxic Substances Control Act, as applicable. EPA believes, based on the Toxicity Characteristic (TC) data provided by commenters, that the distillation bottoms from re-refining of used oil do not exhibit the characteristic of toxicity. Therefore, the Agency has deferred a listing decision for these residuals and has provided a conditional exemption from the hazardous waste regulations of parts 262 through 266, 268, 270, and 279 and the part 279 standards for certain residuals that are incorporated into asphalt (40 CFR 279.10(e)(4)).

V. Listing Determination for Recycled Used Oil

A. General

Section 3001 of RCRA provides the Agency with the general statutory authority under RCRA for identification and listing of hazardous wastes. In 1984, HSWA amended section 3014 of RCRA by specifically requiring EPA to exercise its hazardous waste



**Oregon Administrative Rules
1998 Compilation**

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 100

HAZARDOUS WASTE MANAGEMENT

Hazardous Waste Management System: General

340-100-0001 thru 340-100-0022

Hazardous Waste Management System: General

[DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; DEQ 21-1984, f. & ef. 11-8-84; Superseded by DEQ 8-1985, f. & ef. 7-25-85]

340-100-0001

Purpose and Scope

- (1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.
- (2) The purpose of the management program contained in OAR Chapter 340, Divisions 100 to 110 and 120 is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous waste minimization, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.
- (3) OAR Chapter 340, Divisions 100 to 106 incorporated, by reference, hazardous waste management regulations of the federal program, included in **40 CFR Parts 260 to 266, 268, 270 and Subpart A of 124**, into Oregon Administrative Rules. Therefore, persons must consult these parts of **40 CFR** in addition to OAR Chapter 340, Divisions 100 to 106 and 120 to determine all applicable hazardous waste management requirements.
- (4) A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in

lieu of the federal program.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.105, 466.195 & Ch. 468

Stats. Implemented: ORS 465.006, 466.010, 466.015, 466.025, 466.030, 466.035, 466.086 & 466.180

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

340-100-0002

Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations

(1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, 108, 109, 111, 113 and 120, the rules and regulations governing the management of hazardous waste, including its generation, transportation, treatment, storage, recycling and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270, 273 and Subpart A and Subpart B of Part 124 promulgated through June 6, 1997 are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215.

NOTE: On March 3, 1992, in 57 Federal Register 7628, EPA promulgated a readoption of 40 CFR 261.3, the mixture and derived-from rules, because the rules had been vacated as result of federal litigation. The EQC did not adopt this amendment at that time because the State had independently and legally adopted mixture and derived-from rules under state law in 1984, and has indicated its intent to maintain the mixture and derived-from rules with each annual rulemaking update.

(2) Except as otherwise modified or specified by OAR Chapter 340, Division 111, the rules and regulations governing the standards for the management of used oil, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 279 promulgated through June 6, 1997, are adopted by reference into Oregon Administrative Rules and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

(**Comment:** The Department uses the federal preamble accompanying the federal regulations and federal guidance as a basis for regulatory decision making).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch 183.337, 465.009, 466.020 & 468.020

Stats. Implemented: ORS Ch. 466.015, 466.020, 466.025, 466.075 & 466.086

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 10-1987, f. & ef. 6-11-87; DEQ 23-1987, f. & ef. 12-16-87; DEQ 19-1988, f. & cert. ef. 7-13-88; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 11-1993, f. & cert. ef. 7-29-93; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 31-1994(Temp), f. 12-6-94, cert. ef. 12-19-94; DEQ 11-1995, f. & cert. ef. 5-19-95; DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 14-1997, f. & cert. ef. 7-23-97

340-100-0003

Public disclosure and confidentiality

(1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) All records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and

regulations are open for public inspection and copying except as provided in sections (3) to (7) of this rule. Provided however, that nothing in this rule is intended to alter any exemption from public disclosure or public inspection provided by any provision of ORS Chapter 192 or other Oregon law.

(3)(a) Records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and regulations may be claimed as trade secret by the submitted in accordance with ORS 192.410 through 192.505 and 466.090.

(b) The Department shall designate a Document Control Officer for the purpose of receiving, managing, and securing confidential information. The following information shall be secured by the Document Control officer:

(A) Claimed trade secret information until the claim is withdrawn by the submitter, determined not to be confidential under section (6) of this rule, or invalidated;

(B) information determined to be trade secret; and

(C) any other information determined by court order or other process to be confidential.

(c) All Uniform Hazardous Waste Manifest information submitted on any required report pursuant to the hazardous waste statutes, rules, and regulations is publicly available and is not subject to trade secret confidentiality claims.

(d) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) The following procedures shall be followed when a claim of trade secret is made:

(a) Each individual page of any submission that contains the claimed trade secret information must be clearly marked as "trade secret," "confidential," "confidential business information," or equivalent. If no claim by appropriate marking is made at the time of submission, the submitter may not afterwards make a claim of trade secret.

(b) A late submission of the trade secret substantiation will invalidate the trade secret claim. Written substantiation in accordance with paragraph 4(d) of this rule:

(A) Must accompany any information submitted pursuant to OAR 340-102-0012, 340-102-0041, 340-104-0075, 340-105-0010, 340-105-0013, 340-105-0014, 340-105-0020, 340-105-0021, 40 CFR 262.12, 264.11, 265.11 or 270.42, or

(B) For all other information submitted to the Department, written substantiation must be provided pursuant to subsection 5 of this rule.

(c) Trade secret information must meet the following criteria:

(A) Not the subject of a patent;

(B) Only known to a limited number of individuals within an organization;

(C) Used in a business which the organization conducts;

(D) Of potential or actual commercial value; and

(E) Capable of providing the user with a business advantage over competitors not having the information.

(d) Written substantiation of trade secret claims shall address the following:

- (A) Identify which portions of information are claimed trade secret.
- (B) Identify how long confidential treatment is desired for this information.
- (C) Identify any pertinent patent information.
- (D) Describe to what extent the information has been disclosed to others, who knows about the information, and what measures have been taken to guard against undesired disclosure of the information to others.
- (E) Describe the nature of the use of the information in business.
- (F) Describe why the information is considered to be commercially valuable.
- (G) Describe how the information provides a business advantage over competitors.
- (H) If any of the information has been provided to other government agencies, identify which one(s).
- (I) Include any other information that supports a claim of trade secret.

(e) A public version of the document containing the claimed trade secret information must be submitted at the time the trade secret substantiation is required as provided in subsection (4)(b)(A) and subsection (5)(a) of this rule.

(5)(a) Written trade secret substantiation as required under subsection (4)(b)(B) and a public version of the information as required by subsection (4)(e) shall be provided within 15 working days of receipt of any Department request for trade secret substantiation or the public version of the information. The Department may extend the time, either at the Department's initiative or the claimant's request, up to an additional 30 consecutive days in order to provide the substantiation and public version, if the complexity or volume of the claimed trade secret information is such that additional time is required for the claimant to complete the response. The Department shall request the written trade secret substantiation or the public information version if:

(A) A public records request is received which would reasonably include the information, if the information were not declared as trade secret, or

(B) It is likely that the Department eventually will be requested to disclose the information at some future time and thus have to determine whether the information is entitled to trade secret confidentiality. This includes information that relates to any permit, corrective action, or potential violation information.

(6) When evaluating a trade secret claim the Department shall review all information in its possession relating to the trade secret claim to determine whether the trade secret claim meets the requirements for trade secret as specified in paragraphs 4(c) and 4(d) of this rule. The Department shall provide written notification of any final trade secret decision and the reason for it to the person submitting the trade secret claim within 10 working days of the decision date.

(a) If the Department or the Attorney General determines that the information meets the requirements for trade secret, the information shall be maintained as confidential.

(b) If the Department determines that the information does not meet the requirements for trade secret, the Department shall request a review by the Attorney General. If the Attorney General determines that the information does not meet the requirements for trade secret, the Department may make the information available to the public no sooner than 5 working days after the date of the written notification to the person submitting the trade secret claim.

(c) A person claiming information as trade secret may request the Department to make a trade secret determination. The person must submit the written substantiation in accordance with paragraph 4(d) of

this rule and the public version in accordance with paragraph 4(e) of this rule. The Department shall make the determination within 30 days after receiving the request, written substantiation, and the public version.

(7) Records, reports, and information submitted pursuant to these rules shall be made available to the Environmental Protection Agency (EPA) upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

Note: It is suggested that claims of trade secret be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 466.020, 468.020 & Ch. 646

Stats. Implemented: ORS 192.410 - 192.505, 466.015, 466.075 & 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 12-1996, f. & cert. ef. 7-31-96

340-100-0004

Table of Contents, Divisions 100 to 120

The following Divisions including the incorporation of regulations in **40 CFR, Parts 260 to 266, 268, 270 and 124**, comprise the Oregon hazardous waste management program:

DIVISION -- SUBJECT

- 100 -- Hazardous Waste Management System: General
- 101 -- Identification and Listing of Hazardous Waste
- 102 -- Standards Applicable to Generators of Hazardous Waste
- 103 -- Standards Applicable to Transporters of Hazardous Waste
- 104 -- Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
- 105 -- Management Facility Permits
- 106 -- Permitting Procedures
- 108 -- Spills and Other Incidents
- 109 -- Management of Pesticide Wastes
- 110 -- Polychlorinated Biphenyls (PCBs)

120 -- Additional Siting and Permitting Requirements for Hazardous Waste and PCB Treatment and Disposal Facilities

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.105, 466.195 & Ch. 468

Stats. Implemented: ORS 466.020, 466.075, 466.105 & 466.195

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

340-100-0005

Public Availability of Information

- (1) Upon request, the Department shall make available Department records regarding facilities and sites for the treatment, storage, and disposal of hazardous waste, in accordance with ORS 192.410 through 192.500.
- (2) Within 20 days of receipt of a request for records, under section (1) of this rule, the Department shall either grant or deny the request. If the Department fails to act within 20 days, the request shall be deemed to be denied.
- (3) In the event that a request for records is denied, the Department shall notify the requestor, in writing, of the basis for the denial and of the requestor's right to appeal the denial to the Attorney General of the State of Oregon, as provided in ORS 192.450.
- (4) In the event that a claim of confidentiality has been made, under OAR 340-100-0003, and such claim cannot be resolved within 20 days of receipt of a request for records, the Department shall notify the requestor within that 20-day period that the request is denied until the claim of confidentiality can be resolved.
- (5) The Department shall consider the reduction or waiver of any fees required to provide copies of records, if the records are requested by the news media, a non-profit public interest group, or any other person or entity, and the requestor provides a written statement in support of reduction or waiver. The Department may reduce or waive fees, if the Department determines that reduction or waiver serves the public interest, taking into consideration the magnitude of the request, the Department's resources, whether the information would not be obtainable by the requestor without the reduction or waiver and any other factors relevant to the public interest.

Stat. Auth.: ORS Ch. 183, 466 & 468

Stats. Implemented: ORS 192.410 - 192.505 & 466.090

Hist.: DEQ 10-1987, f. & ef. 6-11-87

340-100-0010

Definitions

- (1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in **40 CFR 260.10**.

(2) When used in Divisions 100 to 110 and 120 of this chapter, the following terms have the meanings given below:

(a) "Administrator" means:

(A) The "Department", except as specified in paragraph (2)(a)(B) or (C) of this rule;

(B) The "Commission", when used in **40 CFR 261.10** and **261.11**; or

(C) The Administrator of the U.S. Environmental Protection Agency, when used in **40 CFR 262.50**.

(b) "Aquatic LC50 (median aquatic lethal concentration)" means that concentration of a substance which is expected in a specific time to kill 50 percent of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC50 is expressed in milligrams of the substance per liter of water;

(c) "Beneficiation of Ores and Minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process);

(d) "Collection". See "Storage";

(e) "Commission" means the Environmental Quality Commission;

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: The adoption of rules and issuance of orders thereon pursuant to ORS 466.020, 466.075 and 466.510; the making of findings to support declassification of hazardous wastes pursuant to ORS 466.015(3); the issuance of exemptions pursuant to ORS 466.095(2); the issuance of disposal site permits pursuant to ORS 466.140(2); and the holding of hearings pursuant to ORS 466.130, 466.140(2), 466.170, 466.185, and 466.190;

(g) "Director" means:

(A) The "Department", except as specified in paragraph (2)(g)(B) of this rule; or

(B) The "permitting body", as defined in section (2) of this rule, when used in **40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15** and **124.17**.

(h) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700;

(i) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality;

(j) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department;

(k) "Existing Hazardous Waste Management (HWM) Facility" or "Existing Facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:

(A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

- (B)(i) A continuous on-site, physical construction program has begun; or
- (ii) The owner or operator has entered into contractual obligations -- which cannot be canceled or modified without substantial loss -- for physical construction of the facility to be completed within a reasonable time.
- (l) "Extraction of Ores and Minerals" means the process of mining and removing ores and minerals from the earth;
- (m) "Generator" means the person who, by virtue of owner-ship, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste;
- (n) "Hazardous Substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101;
- (o) "Hazardous Waste" means a hazardous waste as defined in **40 CFR 261.3**;
- (p) "Identification Number" means the number assigned by DEQ to each generator, transporter, and treatment, storage and disposal facility;
- (q) "License". See "Permit";
- (r) "Management Facility" means a hazardous waste treatment, storage or disposal facility;
- (s) "Off-site" means any site which is not on-site;
- (t) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see **40 CFR 173.151**);
- (u) "Permitting Body" means:
- (A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits; or
- (B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.
- (v) "Permit" or "License" means the control document that contains the requirements of ORS Chapter 466 and OAR Chapter 340, Divisions 104 to 106 and 120. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit;
- (w) "RCRA" or "Resource Conservation and Recovery Act", when used to refer to a federal law, means Oregon law;
- (x) "RCRA Permit" means Oregon hazardous waste management facility permit;
- (y) "Regional Administrator" means:
- (A) The "Department", except as specified in paragraph (2)(y)(B) or (C) of this rule;
- (B) The "permitting body", as defined in section (2) of this rule when used in **40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17**;
- (C) The "Commission", when used in **40 CFR 260.30 through 260.41**.
- (z) "Residue" means solid waste as defined in 40 CFR 261.2;

(aa) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity;

(bb) "Spill" means unauthorized disposal;

(cc) "Storage" or "Collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste;

(dd) "Waste Management Unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the OAR Chapter 340, Division 104 regulations (principally the technical standards in Subparts K-N of 40 CFR Part 264) establish requirements that are to be implemented on a unit-by-unit basis.

(3) When used in Divisions 100 to 106 and 108 to 109 and 113 of this chapter, the following terms have the meanings given below:

(a) "Aeration" means a specific treatment for decontaminating an empty volatile substance container consisting of removing the closure and placing the container in an inverted position for at least 24 hours.

(b) "Beneficial Use" means the return of unused pesticide product (e.g., pesticide equipment rinsings, excess spray mixture) or empty pesticide container(s) without processing to the economic mainstream, as a substitute for raw materials in an industrial process or as a commercial product (e.g., melting a container for scrap metal).

(c) "Department" means the Department of Environmental Quality.

(d) "Empty Container" means a container from which:

(A) All the contents have been removed that can be removed using the practices commonly employed to remove materials from that type of container; and

(B)(i) No more than one inch of residue remains on the bottom of the container; or

(ii) No more than three percent of the total capacity of the container remains in the container if the container is less than or equal to 110 gallons in size; or

(iii) No more than 0.3% of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size; or

(iv) If the material is a compressed gas, the pressure in the container is atmospheric.

(e) "Household Use" means use by the home or dwelling owner in or around households (including single and multiple residences, hotels and motels).

(f) "Jet Rinsing" means a specific treatment for an empty container using the following procedure:

(A) A nozzle is inserted into the container, or the empty container is inverted over a nozzle such that all interior surfaces of the container can be rinsed; and

(B) The container is thoroughly rinsed using an appropriate solvent.

(g) "Multiple Rinsing" means a specific treatment for an empty container repeating the following procedure a minimum of three times:

(A) An appropriate solvent is placed in the container in an amount equal to at least 10% of the container volume; and

(B) The container is agitated to rinse all interior surfaces; and

(C) The container is opened and drained, allowing at least 30 seconds after drips start.

(h) "Pesticide" means any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling, or mitigating of insects, fungi, weeds, rodents, or predatory animals; including but not limited to defoliant, desiccants, fungicides, herbicides, insecticides, and nematocides as defined by ORS 634.006.

(i) "Pesticide Equipment" means any equipment, machinery or device used in pesticide manufacture, repackaging, formulation, bulking and mixing, use, cleaning up spills, or preparation for use or application of pesticides, including but not limited to aircraft, ground spraying equipment, hoppers, tanks, booms and hoses.

(j) "Pesticide Residue" is a hazardous waste that is generated from pesticide operations and pesticide management, such as, from pesticide use (except household use), manufacturing, repackaging, formulation, bulking and mixing, and spills. Pesticide residue includes, but is not limited to, unused commercial pesticides, tank or container bottoms or sludges, pesticide spray mixture, container rinsings and pesticide equipment washings, and substances generated from pesticide treatment, recycling, disposal, and rinsing spray and pesticide equipment. Pesticide residue does not include pesticide-containing materials that are used according to label instructions, and substances such as, but not limited to treated soil, treated wood, foodstuff, water, vegetation, and treated seeds where pesticides were applied according to label instructions .

(k) "Public-Use Airport" means an airport open to the flying public which may or may not be attended or have service available.

(l) "Reuse" means the return of a commodity to the economic mainstream for use in the same kind of application as before without change in its identity (e.g., a container used to repackage a pesticide formulation).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 465.009, 466.020, 468.020

Stats. Implemented: ORS Ch. 465.003, 465.009, 466.005, 466.075 & 466.105

Hist.: DEQ 7-1984, f. & cert. ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 12-1996, f. & cert. ef. 7-31-96; Renumbered from 340-109-0002

340-100-0020

Petitions, General

(1) Any person may petition the Department to approve an equivalent testing or analytical method or may petition the Commission to exclude a waste produced at a particular facility. This rule sets forth general requirements which apply to all such petitions.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.20**.

(3) After evaluating all public comments, the Department or Commission as appropriate will make a

decision to grant or deny the petition. Persons commenting on the petition will be notified and the decision placed in the public record.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459 & 468

Stats. Implemented: ORS 466.020 & 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-100-0021

Petitions for Equivalent Testing or Analytical Methods

(1) Any person seeking to add a testing or analytical method to OAR Chapter 340, Division 101, 104 or 105 shall petition under this rule and OAR 340-100-0020.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.21**.

(3) If the Department permits use of a new testing or analytical method, the method will be made available for public inspection in the manner indicated in OAR 340-100-0011(2).

NOTE: In most instances, the Department will not consider approving a testing or analytical method until it has been approved by EPA.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459 & 468

Stats. Implemented: ORS 466.020 & 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-100-0022

Petitions to Amend Division 101 to Exclude a Waste Produced at a Particular Facility

(1) Any person seeking to exclude a waste at a particular generating facility from the lists in **Subpart D of Part 261** shall petition under this rule and OAR 340-100-0020.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.22**.

(3) The Commission may (but shall not be required to) grant a temporary exclusion before making a final decision under **40 CFR 260.20(d)** whenever it finds that there is a substantial likelihood that an exclusion will be finally granted. The Commission will place any such temporary exclusion in the public record.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459 & 468

Stats. Implemented: ORS 466.020, 466.075 & 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

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**Oregon Administrative Rules
1998 Compilation**

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 101

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

340-101-0001 thru 340-101-0034

Identification and Listing of Hazardous Waste

[DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; Superseded by DEQ 8-1985, f. & ef. 7-25-85]

340-101-0001

Purpose and Scope

(1) The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 106, 108, 109, 111 and 113 of this Chapter.

(2) Persons must also consult 40 CFR Parts 124, 260 to 266, 268, 270, 273 and 279, which are incorporated by reference in OAR 340-100-0002, to determine all applicable hazardous waste management requirements.

[Publications: The Publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 459, 465.009, 466.020 & 468.020

Stats. Implemented: ORS Ch. 465.009, 466.075 & 466.105

Hist.: DEQ 7-1984, f. & ef. 4-26-84; Superseded by DEQ 8-1985, f. & ef. 7-25-85 DEQ 8-1985, f. & ef. 7-25-85; DEQ 12-1996, f. & cert. ef. 7-31-96

340-101-0004

Exclusions

(1) The provisions of **40 CFR 261.4(b)(7)** is deleted and replaced with section (2) of this rule.

(2) Residues from the extraction and beneficiation of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore, are not hazardous waste.

NOTE: The state program is more stringent than the federal program in that the latter also excludes residues from processing.

(3) Residue described in **40 CFR 261.4(b)(9)** is exempted from Divisions 100 - 106 and 109.

[Publications: The Publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 466.020

Hist.: DEQ 7-1984, f. & ef. 4-26-84; Superseded by DEQ 8-1985; DEQ 8-1985, f. & ef. 7-25-85; DEQ 6-1994, f. & cert. ef. 3-22-94

340-101-0033

Additional Hazardous Wastes

(1)(a) This section applies to residues that have been determined not to be hazardous waste under 40 CFR 261, Subparts C and D.

(b) This section does not apply to residues that have been identified as hazardous waste under 40 CFR 261, Subparts C and D.

(2) Except as provided in section (4) of this rule, the residues identified in subsections (2)(a) and (2)(b) of this rule are hazardous wastes and are added to and made a part of the list of hazardous wastes in 40 CFR 261.33.

(a) Any residue, including but not limited to manufacturing process wastes and unused chemicals that has either:

(A) A 3 percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e);

(B) A 10 percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f); or

(b) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of either:

(A) A residue identified in subsection (2)(a)(A) of this rule; or

(B) A residue identified in subsection (2)(a)(B) of this rule.

(3) A residue identified as a hazardous waste in subsections (2)(a) or (2)(b) of this rule, and not excluded under section (4) of this rule, has the hazardous waste letters "OR" followed by the corresponding hazardous waste number(s) in 40 CFR 261.33(e) and (f).

(4) The following residues are not additional hazardous wastes under section (2) of this rule:

(a) mixtures of pesticides identified in section (2) of this rule that are listed in 40 CFR 261.33(e) and (f);

(b) those substances or mixtures of substances with individual constituents only listed in both 40 CFR 261.24, Table 1, and 40 CFR 261.33(e) and (f); and

(c) U075 (Dichlorodifluoro-methane) and U121 (Trichloromonofluoromethane) when they are intended to be recycled.

NOTE: Pesticide mixtures excluded in Section (4)(a) of this rule are regulated as pesticide residue in Section (6) of this rule.

(5) The wastes identified in subsections (2)(a)(A) and 2 (b)(A) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 40 CFR 261.5(e).

(6) Any pesticide residue, except residue listed in Table 1 of 40 CFR 261.24 and which passes the evaluation requirement of 40 CFR 261.24(a), is a hazardous waste and is added to and made a part of the list of hazardous waste in 40 CFR 261.31 until it is first managed in accordance with the standards in OAR 340-109-0010(2)(a).

(7) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in subsection (7)(a) and 7(b) of this rule are added to and made a part of the list in 40 CFR 261.33(e);

(a) P998. . .Blister agents (such as Mustard agent)

(b) P999. . .Nerve agents (such as GB (Sarin) and VX).

(8) Hazardous waste identified in subsection (8)(a) and (b) of this rule are added to and made part of the list in 40 CFR 261.31.

(a) F998. . .Residues from demilitarization, treatment, and testing of blister agents (such as Mustard agent).

(b) F999. . .Residues from demilitarization, treatment, and testing of nerve agents (such as GB(Sarin) and VX).

(9) Except as otherwise specified in OAR 340-109-0010(4)(b) hazardous waste identified in this rule is not subject to 40 CFR Part 268.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of

Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 465.009, 466.020, 466.025, 466.075 & 468.020

Stats. Implemented: ORS Ch. 465.009, 466.020 & 466.075,

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; Superseded by DEQ 8-1985; DEQ 8-1985, f. & ef. 7-25-85; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 11-1992, f. & cert. ef. 6-9-92; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 12-1996, f. & cert. ef. 7-31-96

340-101-0040

Wastes Requiring Special Management

(1) **Abrasive Blast Waste Containing Pesticides.** Abrasive blast waste which contains pesticides that do not meet the criteria specified in 40 CFR Part 261, Subpart C, is not a federal hazardous waste for any other reason, and fails the "Department of Environmental Quality Aquatic Toxicity Test," whereby a representative sample of a pesticide residue exhibits a 96-hour aquatic toxicity LC_{50} equal to or less than 250 mg/l, are not subject to OAR Chapter 340, Divisions 100 to 106, 108, and 109 provided:

(a) The waste is prevented from entering the environment; and:

(Note: The practices described in **Appendix 1**, "Best Pollution Prevention Practices for Abrasive Blast Media Waste from Shipyard Repair Facilities", provide guidance. The guidance in **Appendix 1** or equivalent Best Pollution Prevention Practices should be used).

(b) The waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(1)(c); and,

(c) The waste is recycled, disposed of according to OAR 340-093-0190(1)(f), or disposed of at a hazardous waste facility or other facility authorized to receive such waste.

(2) **Pesticide Treated Wood.** Spent treated wood that is used or reused for a purpose for which the material would be treated is exempt from OAR 340-101-0040(2). Waste resulting from the use of newly pesticide-treated wood (including scrap lumber, shavings and sawdust; waste resulting from shaping pesticide-treated wood, such as sawdust, shavings and chips; and treated wood removed from service) that does not meet the criteria specified in 40 CFR Part 261, Subpart C; and is not a federal hazardous waste for any other reason; and is not otherwise excluded by 40 CFR 261.4(b)(9), and is not pesticide residue as defined in OAR 340-100-0010(3)(j) is not subject to Divisions 100 to 106, 108 and 109 provided:

(a) the waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(2)(b); and

(b) the waste is recycled or disposed of according to OAR 340-093-0190(1)(g) or is managed at a facility authorized to receive such waste.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

[ED. NOTE: The Appendix referenced in this rule is not printed in the OAR Compilation. Copies are available from the

Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.325](#) to [183.337](#), [465.009](#), [466.020](#), [466.090](#) & [468.020](#)

Stats. Implemented: ORS [466.020](#), [466.025](#), [466.075](#) & [466.100](#)

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 11-1995, f. & cert. ef. 5-19-95; DEQ 12-1996, f. & cert. ef. 7-31-96

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**Oregon Administrative Rules
1998 Compilation**

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 102

**STANDARDS APPLICABLE TO GENERATORS OF
HAZARDOUS WASTE**

340-102-0010 thru 340-102-0052

Standards Applicable to Generators of Hazardous Waste

[DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; DEQ 27-1984, f. & ef. 12-26-84;
Superseded by DEQ 8-1985, f. & ef. 7-25-85]

340-102-0010

Purpose, Scope and Applicability

- (1) The purpose of this Division is to establish standards for generators of hazardous waste.
- (2) Persons must also consult 40 CFR Parts 124, 260 to 266, 268, 270, 273 and ~~279~~ which are incorporated by reference in OAR 340-100-0002, to determine all applicable hazardous waste management requirements.
- (3) Any person identified in section (4) of this rule is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.
- (4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue other than unused commercial chemical product pesticide from:
 - (a) Pesticide manufacturing, repackaging, formulating, bulking, mixing, application, use, and cleaning up spilled material;
 - (b) Agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland);
 - (c) Industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards);

- (d) Structural pest control (for example, in human dwellings);
 - (e) Ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf);
 - (f) Forest pest control;
 - (g) Recreational pest control (for example, in parks or golf courses);
 - (h) Governmental pest control (for example, for clearing a right-of-way or vector, predator, and aquatic pest control);
 - (i) Seed treatment;
 - (j) Pesticide demonstration and research; or
 - (k) Wood treatment (for example, lumber, poles, ties and other wood products).
- (5) A person who generates a hazardous waste as defined by 40 CFR 261.3 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS 466.185 to 466.210, 459.992 and 466.995, 459.995, 466.880, 466.890, 466.895, 466.900 and OAR Chapter 340, Division 12.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 459, 465.009, 466.020, 465.009 & 468.020

Stats.Implemented: ORS 466.010, 466.015, 466.020, 466.075 & 466.195

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 12-1996, f. & cert. ef. 7-31-96

340-102-0011

Hazardous Waste Determination

- (1) The provisions of this rule replace the requirements of **40 CFR 262.11**.
- (2) A person who generates a residue as defined in OAR 340-100-0010 must determine if that residue is a hazardous waste using the following method:
 - (a) Persons should first determine if the waste is excluded from regulation under **40 CFR 261.4** or OAR 340-101-0004;
 - (b) ~~Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of OAR 340-101-0033;~~

NOTE: Even if the waste is listed, the generator still has an opportunity under OAR 340-100-0022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.

- (c) ~~Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is hazardous under Subpart C of 40 CFR Part 261 by either:~~

(A) Testing the waste according to the methods set forth in **Subpart C of 40 CFR 261**, or according to an equivalent method approved by the Department under OAR 340-100-0021.

NOTE: In most instances, the Department will not consider approving a test method until it has been approved by EPA.

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and **40 CFR Part 264, 265 and 268** for possible exclusions or restrictions pertaining to management of his/her specific waste.

NOTE:40 CFR 268.3 prohibits dilution of a hazardous waste to meet Land Disposal Restriction treatment standards. Diluting waste without a permit to meet any hazardous waste standard is prohibited.

(e) If the waste is not identified as hazardous by application of subsection (2)(b) and/or (c) of this rule, persons must determine if the waste is listed under OAR 340-101-0033.

(3) A person who generates a residue, as defined in OAR 340-100-0010(2)(z), must keep a copy of the documentation used to determine whether the residue is a hazardous waste, under section (2) of this rule, for a minimum of three years after the waste stream is no longer generated, or as prescribed in **40 CFR 262.40(c)**. If no documentation is created in making the wastestream determination, then no new documentation need be created.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 466.015, 466.020 & 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 6-1994, f. & cert. ef. 3-22-94

340-102-0012

Identification Number and Verification

In addition to the provisions of **40 CFR 262.12**, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and identification numbering system (Dun and Bradstreet) for generators who register in the future. Effective January 1, 1991, and annually thereafter, hazardous waste generators and hazardous waste management and recycling facilities shall verify registration information on a form provided by the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.165, 466.195 & Ch. 468

Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 13-1991, f. & cert. ef. 8-5-91

340-102-0034

Accumulation Time, Container and Tank Management Standards

(1) In addition to the requirements of **40 CFR 262.34**, a generator may accumulate hazardous waste on-site for 90 days or less without a permit provided that, if storing in excess of 100 containers, the waste is placed in a storage unit that meets the requirements of **40 CFR 264.175**.

(2) A generator shall comply with provisions found in **40 CFR, Part 262** and each applicable requirement of **40 CFR 262.34(a), (b), (c), (d), (e), and (f)**.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 23-1987, f. & ef. 12-16-87; DEQ 6-1994, f. & cert. ef. 3-22-94

340-102-0040

Recordkeeping

(1) The provisions of section (2) of this rule replace the requirements of 40 CFR 262.40(b).

(2) A generator must keep a copy of reports submitted to the Department under OAR 340-102-0041 and under 40 CFR 262.42(b) for a period of at least three years from the due date of the report.

(3) The record retention requirement of section (2) of this rule applies to the provisions of 40 CFR 262.44.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 459, 465.009, 466.020, 465.009, 468.020 & Ch. 468

Stats.Implemented: ORS Ch 466.075 & 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 13-1991, f. & cert. ef. 8-5-91; DEQ 12-1996, f. & cert. ef. 7-31-96

340-102-0041

Generator Reporting

(1) The provisions of this rule replace the requirements of **40 CFR 262.41**.

(2) A person producing at any time more than one kilogram of acutely hazardous waste, a total of more than 100 kilograms of hazardous waste in a calendar month, or who accumulates on-site at any time a total of more than 1,000 kilograms of hazardous waste, shall submit Quarterly Reports through the period ending December 31, 1991 to the Department. Effective January 1, 1992, and annually thereafter, a report shall be submitted to the Department, on a form provided by the Department, or by other means agreed to by the Department, by persons defined as small quantity hazardous waste generators, large quantity hazardous waste generators, and/or hazardous waste recyclers. The report shall contain information required by the Department covering activities from the preceding calendar year. Reports shall be submitted by March 1, or within 65 days of mailing by the Department, whichever is later. Upon written request and reasonable justification, the Department may grant an extension to the reporting deadline of up to 30 days. The annual report shall contain:

(a) Information required for purposes of notification of hazardous waste activity and/or annual verification of hazardous waste generator status;

(b) Information required for purposes of describing hazardous waste generator and waste management activity, including information pertaining to hazardous waste storage, treatment, disposal, and recycling

efforts and practices;

(c) Information required for the assessment of fees; and

(d) Information required for the Department's preparation and completion of the Biennial Report and Capacity Assurance Plan.

(3) Quarterly Reports are due within 45 days after the end of each calendar quarter for 1991 (the final quarterly report will be due February 15, 1992). The quarterly reporting requirement will sunset on December 31, 1991:

(a) The Quarterly Report shall include, but not be limited to the following information:

(A) A copy of the completed manifest or a listing of the information from each manifest for each shipment made during the calendar quarter;

(B) A listing of all additional hazardous waste generated during the quarter that was sent off-site without a manifest or was used, reused or reclaimed on-site, on a form provided by the Department. The listing shall include, but not be limited to:

(i) The generator's name and address;

(ii) The generator's U.S. EPA/DEQ Identification Number;

(iii) Identification of the calendar quarter in which the waste was generated;

(iv) The type and quantity of each waste generated, by EPA code number; and

(v) The disposition of each waste, including the identity of the receiving party for wastes shipped off-site and handling method; and

(C) If no hazardous waste was generated during the quarter, a statement to that effect, on a form provided by the Department.

(b) Reports submitted to the Department must be accompanied by the following certification signed and dated by the generator or his/her authorized representative: **"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment"**.

(4) Any generator who is receiving hazardous waste from off-site, generating or managing hazardous waste on-site, including recycling, except closed-loop recycling must submit an annual report covering those wastes and activities in accordance with the provisions of OAR 340-104-0075 and of 40 CFR, Part 266.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.

Stat. Auth.: ORS Ch. 183, 466.020, 466.075, 466.105, 466.165, 466.195 & Ch. 468

Stats. Implemented: ORS 466.075 & 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 10-1987, f. & ef. 6-11-87; DEQ 19-1988, f. & cert. ef. 7-13-88; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 13-1991, f. & cert. ef. 8-5-91

340-102-0050**International Shipments**

- (1) Any person who is required to comply with **40 CFR 262.50** through **262.58** shall also comply with section (2) of this rule.
- (2) When shipping hazardous waste outside the United States, the generator must notify the Department in writing in accordance with **40 CFR 262.53**.
- (3) These notices must be sent to Department of Environmental Quality, Hazardous Waste Section.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466 & 468

Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 19-1988, f. & cert. ef. 7-13-88

340-102-0060**Instructions for the Uniform Hazardous Waste Manifest**

- (1) In addition to the instructions in the **Appendix to 40 CFR Part 262**, relating to completion of the Uniform Hazardous Waste Manifest, generators shall also comply with sections (2), (3), (4) and (5) of this rule.
- (2) Enter a telephone number where an authorized agent of the first transporter may be reached in the event of an emergency, in:
 - (a) Item D of EPA Form 8700-22; and
 - (b) Item O of EPA Form 8700-22A, if applicable.
- (3) Enter a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency, in:
 - (a) Item F of EPA Form 8700-22; and
 - (b) Item Q of EPA Form 8700-22A, if applicable.
- (4) Enter a telephone number where an authorized agent of the facility may be reached in the event of an emergency in Item H of EPA Form 8700-22.
- (5) Enter the EPA Hazardous Waste Number in:
 - (a) Item I of EPA Form 8700-22; and
 - (b) Item R of EPA Form 8700-22A, if applicable.
- (6) The authorized disposal request number may be entered in:
 - (a) Item 15 of EPA Form 8700-22; and

(b) Item 32 of EPA Form 8700-22A, if applicable.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459 & 468

Stats. Implemented: ORS 466.020 & 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-102-0065

Hazardous Waste Generator Fees

(1) Each person generating more than 100 kilograms (220 pounds) of hazardous waste, or more than 1 kilogram (2.2 pounds) of acutely hazardous waste, in any calendar month, or accumulating more than 1,000 kilograms (2,200 pounds) of hazardous waste at any time in a calendar year, shall be subject to an annual hazardous waste generation fee. Fees shall be assessed annually for hazardous waste management activities in the previous year.

(2) A late charge equal to ten percent of the fee due shall be assessed if the fees are not received by the Department by the due date shown on the invoice. An additional late charge of ten percent of the invoice amount shall also be assessed each 30 days that the invoice remains unpaid. Invoices 90 days or more past due may be referred to the Department of Revenue for collection or collected in Small Claims Court. Accounts referred to the Department of Revenue for collection or collected in Small Claims Court shall be increased by 20 percent of the total due (original fee plus late charges) or \$100, whichever is greater, to recover a portion of the costs for referral or collection.

(3) A base hazardous waste generation fee, expressed in mills per kilogram, shall be fixed by rule by the Commission, based on reports from the Department on the total amount of hazardous waste generated in the state and the methods by which the waste was managed:

(a) The Department may use the base fee, or any lesser fee, to determine annual generation fee invoices. Any increase in the base fee must be fixed by rule by the Commission;

(b) Beginning with hazardous waste generated and managed during 1996, the base fee is fixed at 90 mills per kilogram (\$90 per metric ton).

(4) Each person's hazardous waste generation fee shall be calculated by multiplying the base fee by the weight of each hazardous waste stream and by the fee factors listed below for the management method reported in the annual generation report (OAR 340-102-0041) as follows:

(a) Management Method -- Fee Factor:

(A) Metals Recovery (For Reuse) -- 0.50;

(B) Solvents Recovery -- 0.50;

(C) Other Recovery -- 0.50;

(D) Incineration -- 1.00;

(E) Energy Recovery (Reuse as Fuel) -- 0.75;

- (F) Fuel Blending -- 0.75;
- (G) Aqueous Inorganic Treatment -- 1.00;
- (H) Aqueous Organic Treatment -- 1.00;
- (I) Aqueous Organic and Inorganic Treatment (Combined) -- 1.00
- (J) Sludge Treatment -- 1.00;
- (K) Stabilization -- 1.00;
- (L) Other Treatment -- 1.00;
- (M) Neutralization (off-site) -- 0.75;
- (N) Land Disposal -- 1.50;
- (O) Management Method Unknown or Not Reported -- 2.00.
- (b) RCRA-Exempt Management -- Fee Factor:
 - (A) Neutralization (on-site) -- 0.00;
 - (B) Permitted Discharge under Clean Water Act Section 402-- 0.00.

NOTE: In order to determine annual hazardous waste generation fees, the Department may use generator reports required by OAR 340-102-0041; facility reports required by OAR 340-104-0075; information derived from manifests required by 40 CFR 262.20; and any other relevant information. Unless density information is reported, the Department will use the following conversion factors: 1 metric ton = 1,000 kilograms = 2,205 pounds = 1.10 short tons = 1.31 cubic yards = 264.23 gallons = 4.80 drums (55 gallon).

(5) The maximum annual hazardous waste generation fee on any initial fee invoice shall be limited to \$22,500.

(6) Effective January 1, 1997, in addition to the annual hazardous waste generation fee, each hazardous waste generator shall be subject to an annual hazardous waste activity verification fee, upon billing by the Department, as follows:

- (a) Large Quantity Generator -- \$525;
- (b) Small Quantity Generator -- \$300;
- (c) Conditionally Exempt Small Quantity Generator -- No Fee.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS 466.165

Stats. Implemented: ORS 466.165

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 14-1987, f. & ef. 7-28-87; DEQ 11-1988, f. & cert. ef. 5-19-88; DEQ 19-1989(Temp), f. & cert. ef. 7-31-89 (and corrected 8-3-89); DEQ 33-1989, f. & cert. ef. 12-14-89; DEQ 13-1991, f. & cert. ef. 8-5-91; DEQ 11-1992, f. & cert. ef. 6-9-92; DEQ 2-1994, f. & cert. ef. 2-2-94; DEQ 14-197, f. & cert. ef. 7-23-97

340-102-0070

Farmers

In addition to the provisions of **40 CFR 262.70**, a farmer disposing of waste pesticides from his/her own use which are hazardous wastes shall comply with the requirements of Division 109 of these rules.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.105, 466.195 & Ch. 468

Stats. Implemented: ORS 466.020 & 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 19, 1988, f. & cert. ef. 7-13-88; Renumbered from 340-102-0051; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

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DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 108

OIL AND HAZARDOUS MATERIAL SPILLS AND RELEASES

General

340-108-0001

Purpose and Applicability

(1) The purpose of this division is to specify the reporting requirements, cleanup standards and liability that attaches to a spill or release or threatened spill or release involving oil or hazardous material.

(2) The rules of this division apply to any person owning or having control over any oil or hazardous material spilled or released or threatening to spill or release.

(3) Spills or releases or threatened spills or releases of hazardous waste occurring on the site of a generator shall be managed in accordance with the contingency plan and emergency procedures required by **Subpart C and D of 40 CFR 265** and this division.

(4) Spills or releases or threatened spills or releases of hazardous waste on the site of a hazardous waste treatment, storage or disposal facility shall be managed in accordance with the contingency plan and emergency procedures required by **Subparts C and D of 40 CFR Part 265**, or a permit issued pursuant to OAR Chapter 340, Divisions 105 and 106, and this division.

(5) Oil spilled in an area that may allow it to reach any waters of the state shall be managed in accordance with ORS Chapter 468; OAR Chapter 340, Division 47; and this division.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth: ORS Ch. 183, 459, 466 & 468

Stats. Implemented: ORS 466.625

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86

340-108-0002**Definitions**

As used in this division unless otherwise specified:

- (1) "Barrel" means 42 U.S. gallons of oil at 60 degrees Fahrenheit.
- (2) "Cleanup" includes, but is not limited to, the containment, collection, removal, treatment or disposal of oil or hazardous material; site restoration; and any investigation, monitoring, surveys, testing and other information gathering required or conducted by the Department.
- (3) "Cleanup Costs" means all costs associated with the cleanup of a spill or release or threatened spill or release incurred by the state, its political subdivision or any person with written approval from the Department when implementing ORS 466.205, 466.605 to 466.690, 466.880 (3) and (4) and 466.995 (3) or 468.800.
- (4) "Commission" means the Environmental Quality Commission.
- (5) "Contingency Plan" means a document setting out an organized, planned and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment and is prepared pursuant to **40 CFR Part 264- Subpart D or Part 265- Subpart D**.
- (6) "Department" means the Department of Environmental Quality.
- (7) "Director" means the Director of the Department of Environmental Quality.
- (8) "Having Control Over Any Oil or Hazardous Material" includes, but is not limited to, persons using, handling, processing, manufacturing, storing, treating, disposing or transporting oil or hazardous material.
- (9) "Hazardous Material" means:
 - (a) Radioactive Waste and material as defined in ORS 469.300 and 469.530;
 - (b) Substances and wastes listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments, adopted prior to May 1, 1987.
- (10) "Modified Spill Prevention Control and Countermeasure (SPCC) Plan" means the plan to prevent the spill of oil from a non-transportation related facility that has been modified to include those hazardous substances and hazardous wastes handled at the facility.
- (11) "Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.
- (12) "Person" includes, but is not limited to, an individual, trust, firm, joint stock company, corporation, partnership, association, municipal corporation, political subdivision, interstate body, the state and any agency or commission thereof and the Federal Government and any agency thereof.
- (13) "Reportable Quantity" is an amount of oil or hazardous material which if spilled or released, or threatens to spill or release, in quantities equal to or greater than those specified in OAR 340-108-0010 must be reported pursuant to OAR 340-108-0020.
- (14) "SPCC" means Spill Prevention, Control and Countermeasures Plan prepared in accordance with **Title 40 Code of Federal Regulations - Part 112 or Part 1510**.

(15) "Spill or Release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leaking or placing of any oil or hazardous material into the air or into or on any land or waters of the state, as defined in ORS 468.700, except as authorized by a permit issued under ORS Chapter 454, 459, 468 or 469, ORS 466.005 to 466.385, 466.880 (1) and (2), 466.890 and 466.995 (1) and (2) or federal law or while being stored or used for its intended purpose.

(16) "Threatened Spill or Release" means circumstances or events exist that indicate a spill or release of oil or hazardous material is likely and imminent.

(17) "Waters of the State" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

[ED. NOTE: The Appendix 1 and publications referenced in these rules are not printed in the Oregon Administrative Rules Compilation. Copies may be obtained through the Waste Management and Cleanup Division of the Department of Environmental Quality]

Stat. Auth: ORS Ch. 183, 459, 466 & 468

Stats. Implemented: ORS 466.605 & 466.630

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87

340-108-0010

Reportable Quantities

(1) Reportable quantity means:

(a) Any quantity of radioactive material, or radioactive waste;

(b) If spilled into waters of the state, or escape into waters of the state is likely, any quantity of oil that would produce a visible oily slick, oily solids, or coat aquatic life, habitat or property with oil, but excluding normal discharges from properly operating marine engines;

(c) If spilled on the surface of the land, any quantity of oil over one barrel (42 gallons); and

(d) An amount equal to or greater than the quantity listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987.

(e)(A) One (1) pound of nerve agents (such as GB (Sarin) or VX) if spilled or released on-site;

(B) Any quantity of nerve agents such as GB (Sarin) or VX if spilled or released off-site;

(C) An ambient air concentration for nerve agents monitored at the chemical storage perimeter or depot perimeter which is equal to or greater than $3 \times 10^{-6} \text{mg/m}^3$ for GB and VX; or

(D) An ambient air concentration for nerve agents monitored at or near a point of release equal to or greater than $2 \times 10^{-2} \text{mg/m}^3$ GB or $4 \times 10^{-2} \text{mg/m}^3$ VX. (i.e igloo monitoring).

(f) One (1) pound (0.454 kg) of pesticide residue as defined by 340-101-0033(5)(a).

(2) Spills or releases of mixtures or solutions containing any of the hazardous materials listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987 are subject to the reporting requirements of this rule if the total quantity of all the hazardous materials in the mixture or solution (in pounds) exceeds the lowest reportable quantity referenced in subsection (1)(d) of this rule for any one of the hazardous materials in the mixture or solution. A person may rely upon actual knowledge and readily available information such as material safety data sheets, shipping papers, hazardous waste manifests and container labels, to determine the presence and concentration of hazardous materials in a mixture or solution.

(3) The quantity determination required by section (1) of this rule shall be the quantity of oil or hazardous material spilled or released prior to contact or mixing with any other material or substance (i.e., with soil, water, sawdust, etc.). In the case of a threatened spill or release, it shall be the amount of oil or hazardous material in the container or tank from which a spill or release is likely and imminent.

[ED. NOTE: The Appendix 1 and publications referenced in these rules are not printed in the Oregon Administrative Rules Compilation. Copies may be obtained through the Waste Management and Cleanup Division of the Department of Environmental Quality.]

Stat. Auth: ORS Ch. 183, 459, 466 & 468

Stats. Implemented: ORS 466.625 & 466.630

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87

Required Action

340-108-0020

Emergency Action, Reporting

In the event of a spill or release or threatened spill or release, the person owning or having or control over oil or hazardous material shall take the following actions, as appropriate.

(1) Immediately implement the site's SPCC plan, modified SPCC plan or other applicable contingency plan if such a plan is required.

COMMENT: Generators accumulating hazardous waste for less than 90 days are required to have a contingency plan prepared in accordance with 40 CFR 262.34

(2) If an SPCC plan, modified SPCC plan or contingency plan is not otherwise required, immediately take the following actions in the order listed:

(a) Activate alarms or otherwise warn persons in the immediate area; and

(b) Undertake every reasonable method to contain the oil or hazardous material.

(3) If a medical emergency or public safety hazard (i.e., potential fire or explosion) is determined by the responsible person to exist that requires the services of local emergency responders (fire, police, emergency medical technicians), call 911, where available, or local fire and/or police where 911 does not exist.

(4) If the amount of oil or hazardous material exceeds the reportable quantity listed in OAR 340-108-0010 in any 24-hour period, report the spill or release or threatened spill or release to the

Oregon Emergency Management Division.

COMMENT: The Oregon Emergency Management Division can be reached anytime by calling in-state 800-452-0311 or if calling from out-of-state (503) 378-4124.

(5) If the amount of hazardous material exceeds the quantity referenced in OAR 340-108-0010(1)(d) report the spill or release to the National Response Center.

COMMENT: The National Response Center currently can be reached by calling 800-424-8802.

(6) The spill or release need not be reported if:

(a) It occurs on public or private property and is known to the person owning or having control over oil or hazardous material or their designated representative;

(b) It occurs on a surface impervious to the oil or hazardous material spilled or release and it is fully contained; and

(c) It is completely cleaned up without further incident, including fixing or repairing the cause of the spill or release.

(7) Cleanup the spill or release or threatened spill or release of oil or hazardous material pursuant to OAR 340-108-0030. The Department may, in any case, evaluate the action taken and may require additional action to complete the cleanup and disposal pursuant to OAR 340-108-0030.

[ED. NOTE: The Appendix 1 and publications referenced in these rules are not printed in the Oregon Administrative Rules Compilation. Copies may be obtained through the Waste Management and Cleanup Division of the Department of Environmental Quality]

Stat. Auth: ORS Ch. 183, 459, 466 & 468

Stats. Implemented: ORS 466.635 & 466.645

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 15-1987, f. & ef. 7-28-87

340-108-0030

Cleanup Standards

(1) Any person liable for a spill or release or threatened spill or release shall immediately cleanup the spill or release or threatened spill or release consistent with sections (2) and (3) of this rule. Cleanup of a threatened spill or release shall be by taking immediate repair, corrective or containment action.

(2) Spills and releases or threatened spills and releases of oil or hazardous material shall be cleaned up by employing the best available methods of cleanup to achieve the lowest practicable level of contamination. The Department shall determine the lowest practicable level of contamination by applying one or more of the following factors, as appropriate:

(a) Population at risk;

(b) Routes of exposure;

(c) Amount, concentration, hazardous and toxic properties, environmental fate and transport (e.g., ability and opportunities to bioaccumulate, persistence, mobility, etc.), and form of the oil or hazardous material present;

- (d) Hydrogeological factors (e.g., soil permeability, depth to saturated zone, hydrologic gradients, proximity to a drinking water aquifer, floodplains and wetlands proximity);
- (e) Current and potential ground water use;
- (f) Climate (rainfall, etc.);
- (g) The extent to which the oil or hazardous material can be adequately identified and characterized;
- (h) Whether oil or hazardous material at the site may be reused or recycled;
- (i) The likelihood of future releases if the oil or hazardous material remain on-site;
- (j) The extent to which natural or manmade barriers currently contain the oil or hazardous material and the adequacy of the barriers;
- (k) The extent to which the oil or hazardous materials have migrated or are expected to migrate from the area of their original location, or new location if relocated; and whether future migration may pose a threat to public health, safety, welfare or the environment;
- (l) The extent to which State or Federal environmental and public health requirements are applicable or relevant and appropriate to the specific site and the extent to which other State or Federal criteria, advisories, and guidance should be considered in developing the cleanup remedy;
- (m) The extent to which contamination levels exceed applicable or relevant and appropriate State or Federal requirements or other State or Federal criteria, advisories, and guidance;
- (n) Contribution of the oil or hazardous material to an air, land, water, and/or food chain contamination problem;
- (o) The pre-existing background level of the oil or hazardous material present at the cleanup site;
- (p) Other appropriate matters may be considered.

(3) In addition to considering the cleanup factors in section (2) of this rule, cleanup of hazardous waste, or material which as waste is defined as hazardous, shall also be consistent with the following requirements:

(a) If it is a mixture of a solid waste and a hazardous waste that exhibits a characteristic identified in **40 CFR Part 261- Subpart C**, or is a hazardous waste that is listed in **40 CFR Part 261- Subpart D** solely because it exhibits one or more characteristics identified in **Subpart C**, the resultant mixture must be cleaned up to the extent that any remaining waste no longer exhibits any characteristics of hazardous waste identified in **Subpart C**. Any removed characteristic hazardous waste must be shipped to an authorized hazardous waste treatment or disposal facility.

(b) If it is a mixture of solid waste and one or more hazardous waste listed in **40 CFR Part 261- Subpart D**, contamination at the site must be cleaned up to background levels and the removed hazardous waste mixture shipped to an authorized hazardous waste treatment or disposal facility. Any hazardous waste remaining at the site is subject to regulation under OAR 340- division 100 to 109 unless it is delisted pursuant to OAR 340-100-0020 and 0022.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth: ORS Ch. 466

Stats. Implemented: ORS 466.625 & 466.645

Hist.: DEQ 17-1986, f. & ef. 9-18-86

340-108-0040

Cleanup Report

The Department may require the person responsible for a spill or other incident to submit a written report within 15 days of the spill or other incident describing all aspects of the spill and steps taken to prevent a recurrence.

(Comment: Transporters are also required by the Public Utility Commissioner to file a Hazardous Materials Incident Report (DOT Form F5800.0) within 15 days after a spill. A copy of this report may be sent to the Department in lieu of the report required by this rule.)

Stat. Auth: ORS Ch. 183, 459 & 468

Stats. Implemented: ORS 466.610 & 466.645

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; Renumbered from 340-108-0021

340-108-0050

Sampling/Testing Procedures

The representative sampling procedures and analytical testing protocols referenced in 40 CFR 260.11 shall be used when conducting sampling or testing of hazardous materials to comply with this division. For testing of oil spills, the analytical testing protocols for "Oil and Grease (spectro photometric, infra-red)" in Standard Methods (16 ed., #503) and EPA Methods for Chemical Analysis (600-4-79-020, #413.2 or #418.1) shall be used.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth: ORS Ch. 466

Stats. Implemented: ORS 466.625

Hist.: DEQ 17-1986, f. & ef. 9-18-86

340-108-0060

References

See 340-100-0011 for incorporation by reference of Code of Federal Regulations cited in this division.

Stat. Auth: ORS Ch. 466

Stats. Implemented: ORS 466.086 & 466.625

Hist.: DEQ 17-1986, f. & ef. 9-18-86

Liability and Inspections

340-108-0070**Liability**

(1) Any person owning or having control over any oil or hazardous material spilled or released or threatening to spill or release shall be strictly liable without regard to fault for the spill or release or threatened spill or release. However, in any action to recover damages, the person shall be relieved from strict liability without regard to fault if the person can prove the spill or release of oil or hazardous material was caused by:

(a) An act of war or sabotage or an act of God.

(b) Negligence on the part of the United States Government or the State of Oregon.

(c) An act or omission of a third party without regard to whether any such act or omission was or was not negligent.

(2) Any person liable for a spill or release or threatened spill or release under ORS 466.640 shall immediately cleanup the spill or release pursuant to this division. Cleanup of a threatened spill or release shall be by taking immediate repair, corrective or containment action so that an actual spill or release does not occur. In addition to cleanup, the Department may require the responsible person to undertake such investigations, monitoring, surveys, testing and other information gathering as the Department considers necessary or appropriate to:

(a) Identify the existence and extent of the spill or release or threatened spill or release;

(b) Identify the source and nature of oil or hazardous material involved; and

(c) Evaluate the extent of danger to the public health, safety, welfare or the environment.

(Comment: 40 CFR 264.1(g) states that a hazardous waste management facility permit is not required for treatment or containment activities taken during immediate response to a spill or release of a hazardous waste.)

(3) If any person liable under ORS 466.640 does not immediately commence and promptly and adequately complete the cleanup, the Department may cleanup or contract for the cleanup of the spill or release or the threatened spill or release of oil or hazardous material. Whenever the Department undertakes a cleanup, the Department directly or by contract may undertake such investigations, monitoring, survey, testing and other information gathering as it may deem appropriate to identify the existence and extent of the spill or release, the source and nature of oil or hazardous material involved and the extent of danger to the public health, safety, welfare or environment. In addition, the Department directly or by contract may undertake such planning, fiscal, economic, engineering and other studies and investigation it may deem appropriate to plan and direct cleanup actions, to recover costs thereof and legal costs.

(4) The Department shall keep a record of all expenses incurred in carrying out any cleanup projects or activities authorized under section (3) of this rule, including charges for services performed and the state's equipment and materials utilized.

(5) Any person who fails to cleanup oil or hazardous material immediately, when under an obligation to do so, shall be responsible for the reasonable expenses incurred by the Department in carrying out a cleanup project or activity authorized in section (3) of this rule.

(6) Any person who does not make a good faith effort to clean up oil or hazardous material when obligated to do so under ORS 466.645 shall be liable to the Department for damages not to exceed three

times the amount of all expenses incurred by the Department.

(7) If the amount of state-incurred expenses and damages under this rule are not paid by the responsible person to the Department within 15 days after receipt of notice that such expenses and damages are due and owing, or if an appeal is filed within 15 days after the court renders its decision if the decision affirms the order, the Attorney General, at the request of the Director, shall bring an action in the name of the State of Oregon in a court of competent jurisdiction to recover the amount specified in the notice of the Director.

(8) If the spill or release involves a hazardous waste or substance covered by ORS 466.205, the expenditures covered by this rule shall constitute a general lien upon the real and personal property of the person under an obligation to collect, remove or treat the hazardous waste or substance.

(9) Within seven days after the Department begins any cleanup activities under section (3) of this rule, the Department shall file a notice of potential lien on real property to be charged with a lien under section (8) of this rule with the recording officer of each county in which the real property is located and shall file a notice of potential lien on personal property to be charged with a lien under section (8) of this rule with the Secretary of State. The lien shall attach and become enforceable on the day on which the state begins the clean up projects or activities authorized by section (3) of this rule if within 120 days after such date, the state files a notice of claim of lien on real property with the recording officer of each county in which the real property charged with the lien is located and files a notice of claim of lien on personal property with the Secretary of State. The notice of lien claim shall contain:

- (a) A true statement of the demand;
- (b) The name of the parties against whom the lien attaches;
- (c) A description of the property charged with the lien sufficient for identification; and
- (d) A statement of the failure of the person to perform the cleanup or disposal as required.

(10) The lien created by this rule may be foreclosed by a suit in the circuit court in the manner provided by law for the foreclosure of other liens on real or personal property.

Stat. Auth: ORS Ch. 466

Stats. Implemented: ORS 466.640, 466.645 & 466.680

Hist.: DEQ 17-1986, f. & ef. 9-18-86

340-108-0080

Information Requests/Inspections

(1) In order to determine the need for response to a spill or release or threatened spill or release under ORS 401.025, 466.605 to 466.690, 466.880(3) and (4), 466.995 (3) and 468.070, and this division, or enforcing the provisions of ORS 401.025, 466.605 to 466.690, 466.880(3) and (4), 466.995 (3) and 468.070 and this division, any person who prepares, manufactures, processes, packages, stores, transports, handles, uses, applies, treats or disposes of oil or hazardous material shall, upon the request of the Department:

- (a) Furnish information relating to the oil or hazardous material; and
- (b) Permit the Department at all reasonable times to have access to and copy, records relating to the type, quantity, storage locations and hazards of the oil or hazardous material.

(2) In order to carry out section (1) of this rule, the Department may enter to inspect at reasonable times any establishment or other place where oil or hazardous material is present.

(3) ORS 192.500 provides that certain public records (i.e., trade secrets) are exempt from disclosure under ORS 192.410 to 192.500 unless the public interest requires disclosure in a particular instance. Persons required to provide information under section (1) of this rule who desire to have some of their information considered exempt from public disclosure shall:

(a) Make a determination that their information qualifies for exemption from public disclosure pursuant to the criteria in ORS 192.500.

(b) Make the claim in writing at the time of providing the requested information to the Department; and

(c) Provide in writing any documentation or analysis that supports the claim of exemption from public disclosure at the time of providing the information to the Department.

Stat. Auth: ORS Ch. 466

Stats. Implemented: ORS 192.501, 466.195 & 466.610

Hist.: DEQ 17-1986, f. & ef. 9-18-86

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**Oregon Administrative Rules
1998 Compilation**

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 111

USED OIL MANAGEMENT

340-111-0000

Purpose and Scope

- (1) The purpose of this Division is to provide used oil management standards for generators, transporters, transfer facilities, processors and re-refiners, burners and marketers of used oil.
- (2) Persons must consult **40 CFR, Part 279** and associated **Federal Register** preambles in addition to Division 111 of these rules to determine all applicable used oil management requirements.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0010

Applicability

- (1) In addition to provisions under **40 CFR 279.10**, the following provisions under sections (2) through (5) of this rule shall apply.
- (2) Mixtures and residues of used oil and other wastes:

- (a) Used oil or materials containing used oil destined for disposal are subject to hazardous waste determination as required under OAR 340-102-0011;
- (b) Hazardous or non-hazardous substances or waste shall not be mixed with used oil for the purposes of rendering the substances or wastes non-hazardous except as provided in **40 CFR 279.10(b)(2)(iii)** and **(b)(3)**. Wastes that will reduce the recyclability of used oil shall not purposely be mixed with used oil;
- (c) Wastes containing oils that do not meet the definition of used oil as defined in OAR 340-111-0020 may be subject to **40 CFR, Part 279** provided the waste would not be a hazardous waste if disposed and it contains sufficient oil to allow it to be managed in a manner similar to used oil provided state air quality and solid waste regulations are satisfied.

(3) Burning for Energy Recovery:

- (A) Any person who burns used oil for energy recovery must comply with applicable air emission requirements of the state or local air pollution authority;
- (b) Mixtures of used oil and non-hazardous solid waste shall have a minimum energy value of 5,000 Btus per pound when burned as a fuel for energy recovery;
- (c) Mixtures of used oil and non-hazardous waste with energy values of less than 5,000 Btus per pound may be burned for treatment or incineration if the mixture is not a hazardous waste under OAR 340-102-0011 and if the requirements of Oregon solid waste and air quality regulations are satisfied;
- (d) Residues produced from the burning of used oil for energy recovery are subject to the hazardous waste regulations in OAR Chapter 340, Divisions 100 to 110, 120 and **40 CFR, Parts 260 through 266, 268, 270 and 124** if the materials are listed or identified as hazardous waste.

(4) Oil removed from a non-halogenated parts cleaning media may be managed as used oil provided:

- (a) Parts are cleaned primarily to remove an oil that would meet the definition of a used oil as defined in OAR 340-111-0020; and
- (b) Listed or characteristic hazardous waste has not been mixed with the parts cleaning media.

(5) Any person may petition the Department in writing following the procedures in OAR Chapter 183; OAR Chapter 137, Division 2; and OAR Chapter 340, Division 11, for a declaratory ruling whether a material is a used oil under OAR 340-111-0020.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590 & 466.075

Hist.: DEQ 33-1990, f. & cert. ef. 8-15-90; DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0020

Definitions

(1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in 40 CFR 279.1, OAR 340-100-0010 and 340-108-0002.

(2) When used in Division 111 of this Chapter, the following terms have the meanings given below:

(a) "Hot Draining" means draining of used oil filters at or near the engine operating temperature and above room temperature (i.e., 60° F.);

(b) "Terne Plating" means a coating of lead and tin applied to certain oil filters;

(c) "Used Oil" means any oil that has been refined from crude oil, or any synthetic oil that has been used as a lubricant, coolant (non-contact heat transfer fluids), hydraulic fluid or for similar uses and as a result of such use is contaminated by physical or chemical impurities. Used oil includes, but is not limited to, used motor oil, gear oil, greases, machine cutting and coolant oils, hydraulic fluids, brake fluids, electrical insulation oils, heat transfer oils and refrigeration oils. Used oil does not include used oil mixed with hazardous waste except as allowed in 40 CFR 279.10(b), oil (crude or synthetic) based products used as solvents, antifreeze, wastewaters from which the oil has been recovered, and oil contaminated media or debris;

(d) "Used Oil Mixture" means any mixture of used oil as generated and another waste.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 466.020 & 466.075

Hist.: DEQ 33-1990, f. & cert. ef. 8-15-90; DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0030

Prohibitions

In addition to the provisions in 40 CFR 279.12, the following provisions shall apply:

(1) The use of used oil as a pesticide is prohibited.

(2) Disposal at a solid waste disposal facility of liquid used oil or used oil purposely mixed with other materials for the purpose of disposal but not including cleanup materials from incidental or accidental spills where the used oil spilled cannot be feasibly recovered as liquid oil is prohibited.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590, 459A.595 & 466.020

Hist.: DEQ 33-1990, f. & cert. ef. 8-15-90; DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0032

Used Oil Storage

In addition to the provisions in **40 CFR 279.22**, used oil generators shall comply with sections (1) and (2) of this rule:

- (1) Used oil shall be stored following applicable state and local Fire Marshal regulations.
- (2) Containers and tanks used to store used oil shall be closed, covered or located under cover to prevent rainwater from coming in contact with the used oil.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590, 466.020 & 466.075

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0035

On-Site Burning in Space Heaters

In addition to the provisions in **40 CFR 279.23**, used oil generators shall comply with the following: The on-site space heater is operated according to manufacturers specifications.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0037

Off-Site Shipments

The provisions in **40 CFR 279.24 (a)(1)** and **(b)(1)** are replaced with the following: The generator transports the used oil in a vehicle owned or leased by the generator or owned by an employee of the generator.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590 & 466.020

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0040

Notification

The provisions in **40 CFR 279.42(b)**, **40 CFR 279.51(b)**, **40 CFR 279.62(b)** and **40 CFR 279.73** are replaced with the following: A used oil transporter, transfer facility, processor/re-refiner, off-specification used oil burner or used oil fuel marketer, who has not received an EPA/DEQ identification number shall obtain one by notifying the Department of Environmental Quality of their used oil activity by submitting a completed "Notification of Used Oil Activity" Form to the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590, 466.020 & 466.075

Hist.: DEQ 33-1990, f. & cert. ef. 8-15-90; DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0050

Used Oil Discharges and Releases

In addition to the provisions in **40 CFR 279.43(c)**, **40 CFR 279.45(h)**, **40 CFR 279.54(g)** and **40 CFR 279.64(g)**, the provisions of OAR Chapter 340, Division 108 are applicable.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 466.635

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0060

Reporting

The provision in **40 CFR 279.57(b)** is replaced by the following: A used oil processor must report to the Department of Environmental Quality by March 1 of each year, on forms provided by the Department, the following information concerning used oil activities during the previous calendar year:

- (1) The EPA/DEQ identification number, name, and address of the processor/re-refiner;
- (2) The calendar year covered by the report; and
- (3) The quantities of used oil accepted for processing/re-refining and the manner in which the used oil is processed/re-refined, including the specific processes employed.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.590 & 466.020

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

340-111-0070

Disposal

(1) In addition to provisions under **40 CFR 279.81(b)**, used oils that are not hazardous wastes and cannot be recycled under **Part 279** must be managed according to Oregon solid waste regulations in OAR Chapter 340, Divisions 93 - 97.

(2) In addition to provisions under **279.81**, unless permitted pursuant to ORS 468B.050, no person shall dispose of used oil by discharge into sewers, drainage systems, or waters of the state as defined by ORS 468.005(8).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Stats. Implemented: ORS 459A.580

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94

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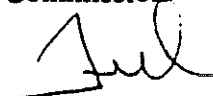
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State of Oregon
Department of Environmental Quality

Memorandum¹

Date: March 1, 1994

To: Environmental Quality Commission
From: Fred Hansen, Director 
Subject: Agenda Item E, March 11, 1994 EQC Meeting

Request to adopt federal hazardous waste regulations, including used oil management standards with clarifying language; amend Oregon Administrative Rules (OAR) pertaining to certain special wastes, hazardous waste generator standards, hazardous waste laboratory standards, hazardous waste confidentiality claims; and amend and update Toxics Use Reduction and Hazardous Waste Reduction (TUR) regulations.

Background

On January 7, 1994, the Director authorized the Waste Management and Cleanup Division to proceed to a rulemaking hearing on proposed rules which would

- ▶ Adopt by reference federal hazardous waste regulations enacted between July 1, 1992 and July 1, 1993, including new used oil management standards with clarifying changes;
- ▶ Establish special waste management standards for treated wood waste and sandblast grit waste and eliminate hazardous waste determination requirements under the state-only 3% and 10% rule for Toxicity Characteristic constituents;
- ▶ Require hazardous waste generators to meet specific container and tank management standards during accumulation of hazardous waste, and to maintain hazardous waste determination records;
- ▶ Specify in regulation the laboratory procedures for conducting a state-only hazardous waste determination using the Aquatic Toxicity Test;
- ▶ Establish procedures for claiming confidential business information for hazardous waste handlers; and

¹Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

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- ▶ Update and amend the Toxics Use Reduction and Hazardous Waste Reduction regulations.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on February 1, 1994. The Hearing Notice and informational materials were mailed to those persons who have asked to be notified of rulemaking actions, and to those persons known by the Department to be potentially affected by or interested in the proposed rulemaking action during the week of January 10, 1994. A total of 1,700 notices were mailed.

A Public Hearing was held February 22, 1994 from 9:00 a.m. until 9:55 a.m. in Room 3a, Third Floor, Department of Environmental Quality, 811 S.W. 6th Ave., Portland, with Gil Hargreaves serving as Presiding Officer. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing.

Written comment was received through 5:00 p.m., February 23, 1994. A list of written comments received is included as Attachment D. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received and have responded in detail (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment E.

The following sections summarize the issues that this proposed rulemaking action is intended to address, the authority to address the issues, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issues this Proposed Rulemaking Action is Intended to Address

1. Adoption by Reference of the Federal Hazardous Waste Regulations enacted between July 1, 1992 and July 1, 1993, including Used Oil Management Standards with Clarifying Changes

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The Department must adopt all federal hazardous waste regulations in order to retain EPA authorization to implement the hazardous waste program under RCRA^{††} in lieu of the EPA. States are required to adopt clusters of federal regulatory changes one year after promulgation of hazardous waste rules by the EPA. The Department has already adopted federal hazardous waste regulations through July 1, 1992, and proposes to adopt new federal rules which will make the state rules current with the federal rules through July 1, 1993. (See Attachment A, page A2, no's. 1 and 2 for the proposed rule amendments; Attachment F for a summary of the federal regulations proposed for adoption; and Attachment G, no. 1, for the 1993 HW/TUR Advisory Committee recommendation). Included in this rulemaking are the new used oil management regulations with proposed clarifying language.

EPA amended the used oil management rules under 40 CFR Part 279 on September 10, 1992, and May 3 and June 17, 1993. The new rules define management methods for mixtures of used oil and other materials, and establish management standards for used oil generators, collection facilities, transporters, processors/re-refiners, burners, and marketers of used oil. The Department has proposed clarifying language to better reflect EPA's intent as described in the rules' preamble and EPA supports the proposed changes. Specifically, the definition of "used oil" is expanded to clarify what is and is not a used oil and a 5,000 BTU per pound limit is set to distinguish used oil that is burned for energy recovery. (See Attachment A, pages A2, no. 2, comment; A14, nos. 10 and 11; and A18, no. 13 for the proposed used oil rule amendments; and Attachment G, no. 2, for the 1993 HW/TUR Advisory Committee recommendation).

2. **Establishing special waste management standards for treated wood waste and sandblast grit waste and eliminating hazardous waste determination requirements under the state-only "3% and 10%" rule for Toxicity Characteristic constituents.**
 - a. **Establishing special waste management standards for treated wood waste.**

Under current regulations, discarded pesticide treated wood waste, such as telephone poles, bridge pilings or mill ends, that are not regulated under the federal hazardous waste rules, may still be a state-only hazardous waste if they fail the aquatic toxicity test. Currently, these state-only hazardous wastes must be managed in accordance with federal hazardous waste management standards because no state-specific standards have

^{††}"RCRA" is the Resource Conservation and Recovery Act of 1984.

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ever been established. The Department believes that pesticide treated wood waste may be safely managed in a modern, lined solid waste landfill because of low concentration of leachable pesticides remaining in the wood. The Department has also proposed modified storage limits and specifically promotes the recycling, use and reuse of pesticide treated wood. (See Attachment A, pages A1, no.1 and A6, no. 6 for the proposed rule amendments and adoptions; and Attachment G, no. 3, for the 1993 HW/TUR Advisory Committee recommendation).

b. Establishing special waste management standards for sandblast grit waste.

Under current regulations, sandblast grit waste resulting from sandblasting ships and marine structures to remove rust and old paint may contain antifoulant ingredients such as Tributyltin (TBT) or cuprous oxide used to control the growth of unwanted organisms on the hulls. Discarded sandblast grit that is not regulated under the federal hazardous waste rules may still be a state-only hazardous waste if it fails the aquatic toxicity test. Currently, these state-only hazardous wastes must be managed in accordance with federal hazardous waste management standards because no state-specific standards have ever been established. The Department believes that sandblast grit waste, which is a state-only hazardous waste, may be safely managed in a modern, lined solid waste landfill because of low concentration of leachable antifoulant remaining in the grit waste. The Department also proposes to minimize environmental exposure from state-only hazardous grit waste by requiring generators to prevent the waste from entering the environment during generation using Best Pollution Prevention Practices (BPPs), or equivalent methods; proposes modified storage limits and specifically promotes the recycling, use and reuse of sandblast grit waste. (See Attachment A, pages A1, no. 1 and A6, no. 6 for the proposed rule amendments and adoptions, and page A7, Appendix 1 to the proposed amendment for recommended BPPs; and Attachment G, no. 4, for the 1993 HW/TUR Advisory Committee recommendation).

c. Eliminating hazardous waste determination requirements under the state-only "3% and 10%" rule for Toxicity Characteristic constituents.

Under this rule, any wastes that have either a total of 3% or greater concentration of any substance or mixture of substances identified as federal "P"^{ttt} listed chemicals or a total of 10% or greater concentration of any substance or mixture of substances

^{ttt}"P" listed chemicals are unused commercial chemical products and are federal acute hazardous waste when discarded or spilled.

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identified as "U"^{tttt} listed chemicals under the federal hazardous waste program are a state-only hazardous waste. Currently, the Department subjects these wastes to dual hazardous evaluation by requiring generators to evaluate a waste first under the federal Toxicity Characteristic Leaching Procedure^{tttt} (TCLP); and if it passes, again under the Department's hazardous waste "3% and 10%" rules. This creates a double hazardous determination standard and is unnecessary.

The Department proposes that wastes containing only the TCLP chemicals which are also listed on the federal "P" and "U" lists not be subject to dual evaluation under Oregon's "3% and 10%" rule, provided wastes containing those chemicals pass the TCLP for the chemical involved. This proposal eliminates twenty-four (24) "U" waste codes, and fifteen (15) "P" waste codes from the dual evaluation requirement. Three-hundred and two (302) "P" and "U" waste codes would remain subject to the "3% and 10%" test, because they are not subject to the TCLP. (See Attachment A, page A5, no. 5 for the proposed rule amendments; and Attachment H for the complete list of "P" and "U" waste codes being proposed for elimination from double evaluation; and Attachment G, no. 5, for the 1993 HW/TUR Advisory Committee recommendation).

3. **Requiring hazardous waste generators to meet specific container and tank management standards during accumulation of hazardous waste, and to maintain hazardous waste determination records.**
 - a. **Container and tank hazardous waste accumulation management requirements.**

The Department has adopted federal hazardous waste regulations governing hazardous waste that is accumulated and stored in containers and tanks. Under the federal rules, if any of these regulatory requirements are not met, such as failure to label or mark a drum "hazardous", the generator may be required to obtain a RCRA hazardous waste storage permit. In 1980, when EPA promulgated the regulation, EPA believed that such permits would be easily obtainable, but that has not proved to be the case. The Department and EPA generally prefer to see such violation corrected quickly rather than going through a costly and time-consuming permit process, although there may be some instances when failure to follow the requirements in 40 CFR 262.34 might trigger a storage permit.

^{tttt}"U" listed chemicals are unused commercial chemical products and are federal toxic, ignitable or reactive hazardous wastes when discarded or spilled.

^{ttttt}The Toxicity Characteristic Leaching Procedure is a chemical specific test which is used to determine if a chemical listed in 40 CFR 261.24 is by definition a hazardous waste.

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Because of the results of a recent enforcement hearing, the Department proposes to make it clearly a duty of generators to meet the requirements outlined in 40 CFR 262.34 (a)-(f), while retaining the federal option of requiring a permit in egregious cases. (See Attachment A, page A14, no. 8 for the proposed rule amendment; and Attachment G, no. 6, for the 1993 HW/TUR Advisory Committee recommendation).

b. Maintaining hazardous waste determination records.

Hazardous waste generators are required to determine if the waste they generate is hazardous. The generator may make this determination through waste analysis or knowledge of the process. Because generators are not explicitly required to maintain written records on how their waste determination was made, it is often difficult for the Department and the generator to demonstrate how the determination is made and to accurately determine generator status. Generator status dictates which regulations apply. Inaccurate status determination can result in improper management of wastes which may be costly for the generator.

The proposed rule requires generators to maintain a copy of the documentation used to determine whether a residue is a hazardous waste as long as the waste is being generated, and for a minimum of three years after the waste stream is no longer generated. If no documentation is created in making the determination, then no new documentation need be created. (See Attachment A, page A13, no. 7 for the proposed rule amendment; and Attachment G, no. 6, for the 1993 HW/TUR Advisory Committee recommendation).

4. Specifying in regulation the laboratory procedures for conducting hazardous waste determination using an aquatic toxicity test.

Several methods of aquatic toxicity procedures exist today, and the Department has encountered some confusion over which Aquatic Toxicity Test procedure is required to be performed when making a hazardous waste determination of a pesticide residue. The Department proposes to amend OAR 340-101-033 to reference the document describing the Aquatic Toxicity Test procedure prescribed by the Department's laboratory. (See Attachment A, page A5, no. 5 for the proposed rule amendment; and Attachment G, no. 7, for the 1993 HW/TUR Advisory Committee recommendation).

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5. Establishing Confidential Business Information filing procedures.

Currently, any hazardous waste information submitted to the Department is considered public information except when designated as trade secret. Hazardous waste rules require that any claim of confidentiality be made at the time of submission of the information; however, substantiation of the claim is not required until the public requests the information. After information substantiating the claim is received by the Department, a determination is made whether the claimed information qualifies as a trade secret.

To avoid delays in evaluating and deciding trade secret confidentiality claims, the proposed rule specifies that substantiation of a confidentiality claim must be made at the time the claim is made. The proposed rule is consistent with the trade secret confidentiality claim procedures used by the Toxics Use Reduction program. (The same people in the agency are responsible for managing both sets of confidential information). (See Attachment A, pages A2, no. 3 and A14, no. 9 for the proposed rule amendments; and Attachment G, no. 8, for the 1993 HW/TUR Advisory Committee recommendation).

6. Updating and amending the Toxics Use Reduction and Hazardous Waste Reduction regulations.

The Department proposes to update and amend the Toxics Use Reduction and Hazardous Waste Reduction regulations. There are three proposed revisions to the regulations: (1) exempting one-time hazardous waste generators from Toxics Use Reduction (TUR) planning requirements; (2) revision of OAR 340-135-040 so that cleanups are exempted from planning requirements consistent with the Toxics Use Reduction and Hazardous Waste Reduction Act of 1989; and (3) updating the list of toxic substances and hazardous wastes subject to the TUR planning requirements (OAR 340-135 Appendix I). (See Attachment A, pages A19, no. 14 and A21 no. 15 for proposed amendments; and Attachment G, no 9, for the 1993 HW/TUR Advisory Committee recommendation.)

Authority to Address the Issue

1. Adoption by Reference of the Federal Hazardous Waste Regulations enacted between July 1, 1992 and July 1, 1993, including Used Oil Management Standards with clarifying changes. ORS 466.020 requires the Commission to adopt rules to establish minimum requirements for the treatment, storage, disposal and recycling of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage and disposal sites, and requirements and procedures for selection of such sites.

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ORS 466.020 requires the Commission to adopt rules pertaining to hearings, filing of reports, submission of plans and the issuance of licenses pertaining to generators, and to the transportation of hazardous waste by air and water.

ORS 468.869 provides that the Environmental Quality Commission shall adopt rules and issue orders relating to the use, management, disposal of and resource recovery of used oil. The rules shall include but not be limited to performance standards and other requirements necessary to protect the public health, safety and environment and a provision prohibiting the use of untested used oil for dust suppression.

2. Establishing special waste management standards for treated wood waste and sandblast grit waste and eliminating hazardous waste determination requirements under the state-only "3% and 10%" rule for Toxicity Characteristic constituents.

ORS 466.015(3) allows the Environmental Quality Commission to declassify as hazardous those substances which the commission finds, after deliberate consideration, taking into account the public health, welfare or safety or the environment, have been properly treated, or decontaminated or contain a sufficiently low concentration of hazardous materials so that such substances are no longer hazardous. ORS 466.075(3) allows the Environmental Quality Commission to exempt by rule certain classes or types of hazardous waste generators from part or all of the requirements upon generators adopted by the commission.

3. Requiring hazardous waste generators to meet specific container and tank management standards during accumulation of hazardous waste, and to maintain hazardous waste determination records. ORS 466.020, general rulemaking authority.

4. Specifying in regulation the laboratory procedures for conducting hazardous waste determination using an aquatic toxicity test. ORS 466.020, general rulemaking authority.

5. Establishing Confidential Business Information filing procedures. ORS 466.020, general rulemaking authority; ORS 466.020 (4), rulemaking authority for hazardous waste reporting; 466.090, inspection and copying of Department records and Confidentiality and Trade Secret Claims; ORS 192 and ORS 646.

6. Updating and amending Toxics Use Reduction and Hazardous Waste Reduction regulations. ORS 465.009 requires the Commission to add or remove any toxic substance or hazardous waste from the provisions of ORS 465.003 to 465.034 which

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pertain to the guidelines for toxics use reduction plans, performance goals and annual progress reports.

OAR 340-135-040 (3) allows the EQC to add or delete from the lists of hazardous wastes and toxics substances identified in OAR 340-135 Appendix 1. In addition, OAR 340-135-040 (3)(b) specifies that any additions or deletions to Appendix 1 shall be made by rulemaking at least biennially.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The Department organized a Hazardous Waste Advisory Committee in 1990 specifically to consider funding options and fee strategies for the Hazardous Waste Program in Oregon. This Committee assisted the Department in developing a permanent generator fee structure to support the program that would also encourage waste reduction and recycling. At the same time, the Department formed a Toxics Use Reduction Advisory Committee to advise the Department on rule development, program development and implementation of the 1989 Toxics Use Reduction and Hazardous Waste Reduction Act.

In 1991, these two committees were combined into a single standing Hazardous Waste/Toxics Use Reduction (HW/TUR) Advisory Committee. The role of this Committee is to counsel the Department on public policy issues related to the Hazardous Waste and Toxics Use Reduction Programs and rulemaking activities, as well as reflect concerns of affected parties. The HW/TUR Advisory Committee consists of representatives from small and large businesses, industry associations, consultants, waste management companies, recyclers, and environmental public interest groups.

In January 1993, the Hazardous Waste Program embarked on a rulemaking process that addressed several rules or sets of rules. This process was announced at the February Responsible Hazardous Materials Conference in Beaverton, Oregon, and discussed at the May meeting of the Associated Oregon Industries Environment Committee. It entailed staff research and development, internal review, and public and advisory committee review of proposed rules followed by a public discussion process which began in July 1993 and continued through October 1993.

The Department held six informal public meetings on the rules and met separately with many of the affected parties, primarily the woodtreating, ship repair, and used oil generating and processing industries. The initial proposed rules and staff report incorporated many of the informal comments prior to convening the Advisory Committee. During a series of six meetings, held between September and November

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1993, the Advisory Committee evaluated the rule proposals, including those addressed here, and developed the recommendations found in Attachment G of this staff report.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

1. **Adoption by Reference of the Federal Hazardous Waste Regulations enacted between July 1, 1992 and July 1, 1993, including Used Oil Management Standards with clarifying changes.** The Department is currently authorized by the federal government to operate the hazardous waste management program, in lieu of the U.S. Environmental Protection Agency (EPA). To retain authorization, states must adopt new federal rules, within specified time frames: adopting these rules keeps Oregon's hazardous waste rules current with federal rules. The Oregon Legislature and Environmental Quality Commission have supported the state's pursuit of authorization and have directed the Department to take any action necessary to maintain Oregon's authorization (ORS 466.086).

This group of federal rules includes new rules defining management methods for mixtures of used oil and other materials and establishing management standards for used oil generators, collection facilities, transporters, processors/re-refiners, burners and marketers of used oil. The Department has proposed clarifying language to better reflect EPA's intent as described in the rules' preamble. Specifically, the definition of "used oil" is expanded to clarify what is not a used oil and a 5,000 BTU per pound limit is set to distinguish used oil that is burned for energy recovery.

2. **Establishing special waste management standards for treated wood waste and sandblast grit waste and eliminating hazardous waste determination requirements under the state-only "3% and 10%" rule for Toxicity Characteristic constituents.**

a. **Establishing special waste management standards for treated wood waste.** Under current regulations, discarded pesticide treated wood waste, such as telephone poles, bridge pilings or mill ends, that are not regulated under the federal hazardous waste rules, may still be a state-only hazardous waste if they fail the aquatic toxicity test. Currently, these state-only hazardous wastes must be managed in accordance with federal hazardous waste management standards because no state-specific standards have ever been established. The Department believes that pesticide treated wood waste may be safely managed in a modern, lined solid waste landfill because of low concentration of leachable pesticides remaining in the wood. The Department has also proposed modified storage limits and specifically promotes the recycling, use and reuse of pesticide treated wood.

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b. **Establishing special waste management standards for sandblast grit waste.** Oregon shipyards generate about 400,000 tons of grit waste per year through paint stripping operations. Around 10 percent of this waste contains some kind of antifoulant ingredient. Besides the fine "sand" (copper, nickel, coal, slag, etc.), grit waste may contain: antifouling^{ttttt} ingredients, paint chips, and metals such as chromium, zinc lead and others. Historically, spent grit has been disposed in bays and rivers, or used as fill material. Currently, the only legal disposal option for hazardous waste (state or federal) grit is in a hazardous waste landfill. While this proposal does not alter management requirements for grit that is hazardous under the federal protocol the Department believes managing grit waste as special waste and providing an option of disposal in a lined, modern solid waste landfill adequately addresses the risk associated with this waste.

c. **Eliminating hazardous waste determination requirements under the state-only "3% and 10%" rule for Toxicity Characteristic constituents.** This state-only rule is broader in scope than federal hazardous waste rules, and was originally adopted to fill a major loophole in the federal program by which certain hazardous used or unused chemicals could be mixed with or contained in wastes and avoid regulation under the federal program through dilution. The current Department rule regulates as hazardous those wastes containing 3% or 10% or more of the chemicals found on the federal "P" and "U" lists of hazardous waste, respectively.

Currently, some of the chemicals on the "P" and "U" lists are also found on other lists, such as such as the TCLP list. EPA's TCLP addresses more of the "3% and 10%" chemicals than before, and, therefore, some of the problems associated with mixing and diluting hazardous chemicals and wastes to avoid regulation have been eliminated.

The Department believes that subjecting hazardous chemicals to two hazardous waste evaluations, once under federal TCLP tests, and even if they pass, again under the 3% and 10% rule is unnecessary and burdensome. The federal tests show that the concentration of TCLP chemicals in a waste is sufficiently low enough to designate the chemicals non-hazardous for regulatory purposes.

3. **Requiring hazardous waste generators to meet specific container and tank management standards during accumulation of hazardous waste, and to maintain hazardous waste determination records.** The Department has adopted federal

^{ttttt} Antifouling ingredients are pesticides such as Tributyltin (TBT) and cuprous oxide which are used to retard the growth of organisms on a ship's hull or on pilings.

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hazardous waste requirements that govern hazardous waste that is placed in containers and tanks by generators and stored on-site for 90 or 180 days. The federal regulations require standards that generators must meet to be in compliance: if these requirements are not met, through failure to label or mark a drum "hazardous", the generator may be required to obtain a permit. The Department and EPA generally do not require a permit because it is better to simply correct the violation than to go through a costly and time-consuming permitting process. In an enforcement hearing, the issue was raised that 40 CFR 262.34 does not clearly impose a duty on generators to meet the standards outlined in the federal program. The Department believes that a generator has a duty to comply with the requirements of 40 CFR 262 and applicable requirements of 40 CFR 262.34 (a), (b), (c), (d), (e), and (f). Under these requirements generators are required to comply with container and tank management standards, label and mark containers and tanks storing hazardous waste, have a Preparedness and Prevention plan in case of an emergency when storing hazardous waste on-site for 90 or 180 days, and to comply with waste analysis requirements if treating hazardous waste on-site.

Under the hazardous waste rules, a generator must determine whether residues are hazardous: all other hazardous waste requirements are based on this determination. The determination procedures are prescribed by regulation but generators are not explicitly required to maintain documentation of how the determination is made. Lack of testing records or information about the chemical and physical properties of potential hazardous chemicals in waste streams makes it difficult to accurately determine generator status; hence, to determine generator requirements and to track hazardous waste management practices. In addition, lack of determination information makes it difficult for a generator to demonstrate to an inspector that the determination was properly made in the first place. To insure proper waste management and accurate records, a generator conducting a written waste determination, must keep and maintain it on-site for future reference.

4. Specifying in regulation the laboratory procedures for conducting hazardous waste determination using an aquatic toxicity test. This is a technical correction to the Department's aquatic toxicity regulation to specify the correct aquatic toxicity test used to determine hazardous pesticide waste. The Department seeks to clarify the rule by referencing the Department's laboratory manual describing the testing procedures.

5. Establishing Confidential Business Information filing procedures. The current rule requires that claims of confidentiality be made at the time information is submitted to the Department. There are no procedures on how or when a claim is to be substantiated by a facility. Currently, the Department asks facilities to substantiate a confidentiality claim only after a public information request is made. The Department

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must make the determination of whether the information meets the tests for confidentiality in order to fully respond to the public request. This process is clumsy and difficult for the facility and the Department since the claim may have to be justified many years after it is made.

6. Amending and updating Toxics Use Reduction and Hazardous Waste Reduction regulations.

a. **Exemption of one-time hazardous waste generators from Toxics Use Reduction planning requirements.** Large and small quantity generators of hazardous waste are required by statute (ORS 465.018) to develop TUR plans regardless of how the waste was generated (with the exception of generators of cleanup wastes). However, many generators produce waste that results from a one-time generation event, such as cleaning out a laboratory chemical storage room or decommissioning equipment. These facilities are usually conditionally exempt generators (CEG) prior to the one-time event and often will not generate additional hazardous waste following the event. The proposed rule allows flexibility for CEGs and simplifies administrative requirements of the TUR program.

b. **Exempt hazardous waste generated as a result of remedial actions from Toxics Use Reduction planning requirements.** Oregon Statutes (ORS 465.034) specify that the TUR planning requirements do not apply to waste that becomes subject to regulation solely as a result of remedial activities taken in response to environmental contamination. This exemption, while in statute, is not currently specified in rule.

c. **Updating the list of toxic substances and hazardous wastes subject to the Toxics Use Reduction and Hazardous Waste Reduction planning requirements (OAR 340-135 Appendix 1).** The list of toxic substances and hazardous wastes subject to the planning requirements is required to be updated on a biennial basis. This change simply updates the list of chemicals and wastes subject to TUR planning.

Relationship to Federal and Adjacent State Rules

The federal regulations being adopted by reference are identical to the federal program, except for the Department's clarifying changes, which meet the intent of the federal used oil management program as specified in the preamble to the federal rule.

Changes proposed to the treated wood waste rules and generator rules make the Department's program more equivalent to current federal regulations and most states' management requirements. The only difference between the federal generator hazardous

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waste characterization recordkeeping requirement and the Department's proposal is that generators will be required to retain documentation used to determine if a waste is not hazardous (the federal program requires such documentation be kept only if the waste is hazardous). Modifications to the "3% and 10%" rules make the Department's program equivalent to EPA's program for 39 hazardous constituents, although the Department continues to regulate 302 federal "P" and "U" constituents under the "3% and 10%" rule. Proposed changes to CBI are similar in intent to current federal regulations under 40 CFR Part 2. The proposed changes to TUR planning requirements have no federal equivalent although many states, including California and Washington, now have similar programs in place.

Summary of Significant Public Comment and Changes Proposed in Response

Many of the comments received were supportive but suggested minor modifications to the Department's proposed rules. (See Attachment E for specific summary of responses to comments).

In response to comments, the Department did make significant changes to the proposed clarifications to the federal used oil regulations. Specifically, the Department deleted its proposed definition (OAR 340-111-002) of "used oil handler" because concern was expressed that the definition was limiting and could be construed to apply only to a portion of the universe of oil handlers. The Department agreed and removed all reference to "used oil handlers" in the proposed rule. In addition, the Department deleted its proposed definition of "solvent" (340-111-002). The Department had proposed to define "solvent" as any material that is used to solubilize (dissolve) or mobilize other constituents for activities such as degreasing, cleaning, painting or coating. This had the effect of limiting "solvents" from being construed as "used oil". Interested parties were concerned that excluding "solvents" from the definition of "used oil" would exclude lubricating oils from the definition, since they have secondary cleaning property. That, of course, was not the Department's intent: lubricating oils do indeed meet the definition of "used oil" when they become spent. However, the Department believes the issue needs addressing and is proposing to add the word "*primarily*" to the definition of "used oil" to clarify that "used oil" does not include oil based products that are used *primarily* as solvents. Finally, concern was expressed that registering the activities of used oil collection centers, transporters, transfer facilities, off-specification used oil burners, processors and marketers on hazardous waste notification forms implied that used oil is a hazardous waste. "Used oil" is not hazardous waste if properly recycled. The Department will retitle its notification form "Notification of Hazardous Waste and Used Oil Activity."

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Changes were also made to the proposed confidential business information rules as a result of comments received. Concern was expressed that the proposed rule could be construed to limit legitimate claims allowed under the Public Records Law and Trade Secrets Act. It is not the Department's intent to limit the scope of claims allowed by law. The Department proposes to adopt language suggested by AOI that clearly states the intention of the rule. The Department also agreed to specifically list which documents and materials would be subject to concurrent substantiation of a confidentiality claim. Substantiation for all other claims would be submitted upon the Department's request.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

Public versions of the rules will be updated to reflect the newly adopted rule changes. Information factsheets, including ones for woodtreaters and used oil processors, will be developed for distribution to affected businesses. Information on these rules will be incorporated into the Department's on-going technical assistance efforts and training workshops, and notice of the final rule changes will be sent to the potentially affected regulated community.

Recommendation for Commission Action

It is recommended that the Commission adopt the rule amendments as presented in Attachment A of the Staff Report.

Attachments

- A. Rules Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Legal Notice of Hearing
 - 2. Notice to Interested and Affected Public
 - 3. Rulemaking Statements (Statement of Need)
 - 4. Fiscal and Economic Impact Statement
 - 5. Land Use Evaluation Statement
- C. Presiding Officer's Report on Public Hearing
- D. List of Written Comments Received
- E. Department's Evaluation and Responses to Public Comments
- F. Summary of Federal Hazardous Waste Regulations Proposed for Adoption
- G. Advisory Committee Membership and Report
- H. List of "P" and "U" Chemicals not Subject to Regulation under the State-only "3% and 10% Rule

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of Amending and) Proposed Amendments, Adoptions, Deletions and
Correcting OAR 340, Divisions) Corrections
93, 100, 101, 102, 105, 110,
111 and 135)

Unless otherwise indicated, material enclosed in brackets and crossed out e.g. [---], is proposed to be deleted and material that is underlined> is proposed to be added.

1. Rule 340-93-190 is proposed to be amended as follows:

Wastes Requiring Special Management

340-93-190

(1) The following wastes require special handling or management practices, and shall not be deposited at a solid waste disposal site unless special provisions for such disposal are included in a Special Waste Management Plan pursuant to OAR 340-94-040(11)(b)(J) or 340-95-020(3)(j), or their disposal is otherwise approved by the Department:

- (a) Agricultural Wastes. Residues from agricultural practices shall be recycled, utilized for productive purposes or disposed of in a manner not to cause vector creation or sustenance, air or water pollution, public health hazards, odors, or nuisance conditions;
- (b) Construction and Demolition Materials. Due to the unusually combustible nature of construction and demolition materials, construction and demolition landfills or landfills incorporating large quantities of combustible materials shall be designed and operated to prevent fires and the spread of fires, in accordance with engineering or operations plans required by these rules. Equipment shall be provided of sufficient size and design to densely compact the material to be included in the landfill;
- (c) Oil Wastes. More than 30 gallons of petroleum-bearing wastes such as used oil filters, oil-absorbent materials, tank bottoms or oil sludges shall not be placed in any

disposal site unless all recoverable liquid oils are removed and special provisions for handling and other special precautions are included in the facility's approved plans and specifications and operations plan to prevent fires and pollution of surface or groundwaters. See also OAR 340-93-040(3)(a), Prohibited Disposal;

(d) Infectious Wastes. All infectious wastes must be managed in accordance with ORS 459.386 to 459.405:

(A) Pathological wastes shall be treated by incineration in an incinerator which complies with the requirements of OAR 340-25-850 to 340-25-905 unless the Department determines:

- (i) The disposal cost for incineration of pathological wastes generated within the individual watershed exceeds the average cost by 25 percent for all incinerators within the State of Oregon which comply with the requirements of OAR 340-25-850 to 340-25-905; or the generator is unable to contract with any incinerator facility within the State of Oregon due to lack of incinerator processing capacity; and
- (ii) The State Health Division of the Oregon Department of Human Resources has prescribed by rule requirements for sterilizing "cultures and stocks," and this alternative means of treatment of the pathological waste is available.

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HAZARDOUS WASTE

Regulated under
OAR 340, Divisions 100-106, 108 &
40 CFR Parts 260-266, 268

Generator must undergo haz. waste
determination. OAR 340-102-0011

Waste excluded from regulation under
40 CFR 261.4 or OAR 340-101-004

Listed Wastes - Part 261, Subpart D

Used oil to be recycled is not listed

Characteristic wastes

Test waste or apply knowledge of process

Used oil to be recycled not regulated as a
haz. waste even if it displays a haz.
characteristic. 40 CFR 261.6(a)(4)

USED OIL

Regulated under
OAR 340, Division 111 &
40 CFR Part 279

Not a haz. waste unless:

Mixed with a listed haz. waste

HW

Rebuttable presumption that used
oil containing over 1000 ppm
halogens mixed w/ listed waste

Mixed w/ a characteristic
waste and the mixture exhibits
a haz. characteristic

HW

Generator must:

Label tanks & containers

Clean up releases

Not use oil as dust suppressant

Generator not required to:

Make haz. waste determination

Analyze oil for total halogen/other content





Managing Used Oil

Advice for Small Businesses

Used Oil Is*

- Synthetic oil—usually derived from coal, shale, or polymer-based starting material
- Engine oil—typically includes gasoline and diesel engine crankcase oils and piston-engine oils for automobiles, trucks, boats, airplanes, locomotives, and heavy equipment
- Transmission fluid
- Refrigeration oil
- Compressor oils
- Metalworking fluids and oils
- Laminating oils
- Industrial hydraulic fluid
- Copper and aluminum wire drawing solution
- Electrical insulating oil
- Industrial process oils
- Oils used as buoyants

This list does not include all types of used oil.

Used Oil Is Not

- Waste oil that is bottom clean-out waste from virgin fuel storage tanks, virgin fuel oil spill cleanups, or other oil wastes that have not actually been used
- Products such as antifreeze and kerosene
- Vegetable and animal oil, even when used as a lubricant
- Petroleum distillates used as solvents

Oils that do not meet EPA's definition of used oil can still pose a threat to the environment when disposed of and could be subject to the RCRA regulations for hazardous waste management.

This fact sheet contains valuable information for businesses such as service stations, fleet maintenance facilities, and "quick lube" shops that generate and handle used oil. It summarizes the U.S. Environmental Protection Agency's (EPA's) used oil management standards—a set of "good housekeeping" requirements for used oil handlers. These requirements are detailed in Title 40 of the *Code of Federal Regulations (CFR) Part 279*. For a complete understanding of these standards, contact the RCRA Hotline at 800 424-9346. Small businesses should also refer to EPA's Emergency Response Division's Information Line at 202 260-2342 for information on how to manage spills.

What Is Used Oil?

EPA's regulatory definition of used oil is as follows: *Used oil is any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities.*

Simply put, used oil is exactly what its name implies—any petroleum-based or synthetic oil that has been used. During normal use, impurities such as dirt, metal scrapings, water, or chemicals can get mixed in with the oil, so that in time the oil no longer performs well. Eventually, this used oil must be replaced with virgin or re-refined oil to do the job at hand.

EPA's used oil management standards include a three-pronged approach to determine if a substance meets the definition of used oil. To meet EPA's definition of used oil, a substance must meet each of the following three criteria:

Origin—the first criterion for identifying used oil is based on the origin of the oil. Used oil must have been refined from crude oil or made from synthetic materials. Animal and vegetable oils are excluded from EPA's definition of used oil.

Use—the second criterion is based on whether and how the oil is used. Oils used as lubricants, hydraulic fluids, heat transfer fluids, buoyants, and for other similar purposes are considered used oil. Unused oil such as bottom clean-out waste from virgin fuel oil storage tanks or virgin fuel oil recovered from a spill, do not meet EPA's definition of used oil because these oils have never been "used." EPA's definition also excludes products used as cleaning agents or solely for their solvent properties, as well as certain petroleum-derived products like antifreeze and kerosene.

Contaminants—the third criterion is based on whether or not the oil is contaminated with either physical or chemical impurities. In other words, to meet EPA's definition, used oil must become contaminated as a result of being used. This aspect of EPA's definition includes residues and contaminants generated from handling, storing, and processing used oil. Physical contaminants could include metal shavings, sawdust, or dirt. Chemical contaminants could include solvents, halogens, or saltwater.

How Is Used Oil Recycled?

Once oil has been used, it can be collected, recycled, and used over and over again. An estimated 380 million gallons of used oil are recycled each year. Recycled used oil can sometimes be used again for the same job or can take on a completely different task. For example, used motor oil can be re-refined and sold at the store as motor oil or processed for furnace fuel oil. Aluminum rolling oils also can be filtered on site and used over again.

EXHIBIT

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Used oil can be recycled in the following ways:

- **Reconditioned** on site, which involves removing impurities from the used oil and using it again. While this form of recycling might not restore the oil to its original condition, it does prolong its life.
 - **Inserted into a petroleum refinery**, which involves introducing used oil as a feedstock into either the front end of the process or the coker to produce gasoline and coke.
 - **Re-refined**, which involves treating used oil to remove impurities so that it can be used as a base stock for new lubricating oil. Re-refining prolongs the life of the oil resource indefinitely. This form of recycling is the preferred option because it closes the recycling loop by reusing the oil to make the same product that it was when it started out, and therefore uses less energy and less virgin oil.
- **Processed and burned for energy recovery**, which involves removing water and particulates so that used oil can be burned as fuel to generate heat or to power industrial operations. This form of recycling is not as preferable as methods that reuse the material because it only enables the oil to be reused once. Nonetheless, valuable energy is provided (about the same as provided by normal heating oil).

- **Collection centers and aggregation points** are facilities that accept small amounts of used oil and store it until enough is collected to ship it elsewhere for recycling. Collection centers typically accept used oil from multiple sources that include both businesses and individuals. Aggregation points collect oil only from places run by the same owner or operator and from individuals.
- **Transporters** are companies that pick up used oil from all sources and deliver it to re-refiners, processors, or burners. Transfer facilities include any structure or area where used oil is held for longer than 24 hours, but not longer than 35 days. Examples of transfer facilities are loading docks and parking areas.
- **Re-refiners and processors** are facilities that blend or remove impurities from used oil so that it can be burned for energy recovery or reused. Included in this category are re-refiners who process used oil so that it can be reused in a new product such as a lubricant and recycled again and again. EPA's management standards primarily focus on this group of used oil handlers.
- **Burners** burn used oil for energy recovery in boilers, industrial furnaces, or in hazardous waste incinerators.
- **Marketers** are handlers who either a) direct shipments of used oil to be burned as fuel in regulated devices or, b) claim that certain EPA specifications are met for used oil to be burned for energy recovery in devices that are not regulated. They also sometimes help move shipments of used oil to burners. By definition, marketers must also fall into at least one of the above categories.

Recycling Used Oil Is Good for the Environment and the Economy—Here's Proof!

- **Re-refining used oil takes only about one-third the energy of refining crude oil to lubricant quality.**
- **It takes 42 gallons of crude oil, but only one gallon of used oil, to produce 2 1/2 quarts of new, high-quality lubricating oil.**
- **One gallon of used oil processed for fuel contains about 140,000 British Thermal Units (BTUs) of energy.**

What Standards Should My Business Follow?

If your business generates or handles used oil, there are certain good housekeeping practices that you must follow. These required practices, called "management standards," were developed by EPA for businesses that handle used oil. The management standards are common sense, good business practices designed to ensure the safe handling of used oil, to maximize recycling, and to minimize disposal. The standards apply to all used oil handlers, regardless of the amount of the oil they handle.

Although different used oil handlers may have specific requirements, the following requirements are common to all types of handlers. These requirements relate to storage and to cleaning up leaks and spills, as follows.

Storage

- Label all containers and tanks as Used Oil.
- Keep containers and tanks in good condition. Don't allow tanks to rust, leak, or deteriorate. Fix structural defects immediately.
- Never store used oil in anything other than tanks and storage containers. Used oil may also be stored in units that are permitted to store regulated hazardous waste. Tanks and containers storing used oil do not need to be RCRA permitted, however, as long as they are labeled and in good condition. Storage of used oil in lagoons, pits, or surface impoundments that are not permitted under RCRA is prohibited.

Does My Business Handle Used Oil?

The following paragraphs describe different types of businesses that handle used oil.

- **Generators** are businesses that handle used oil through commercial or industrial operations or from the maintenance of vehicles and equipment. Generators are the largest segment of the used oil industry. Examples of common generators are car repair shops, service stations, quick lube shops, government motorpools, grocery stores, metal working industries, and boat marinas. *Farmers who produce less than an average of 25 gallons of used oil per month are excluded from generator status. Individuals who generate used oil through the maintenance of their personal vehicles and equipment are not subject to regulation under the used oil management standards.*

Oil Leaks or Spills

- Take steps to prevent leaks and spills. Keep machinery, equipment containers, and tanks in good working condition and be careful when transferring used oil. Have sorbent materials available on site.
- If a spill or leak occurs, stop the oil from flowing at the source. If a leak from a container or tank can't be stopped, put the oil in another holding container or tank.
- Contain spilled oil. For example, containment can be accomplished by erecting sorbent berms or by spreading a sorbent over the oil and surrounding area.
- Clean up the oil and recycle the used oil as you would have before it was spilled. If recycling is not possible, you first must make sure the used oil is not a hazardous waste and dispose of it appropriately. All used cleanup materials, from rags to sorbent booms, that contain free-flowing used oil also must be handled according to the used oil management standards. Remember, all leaked and spilled oil collected during cleanup must be handled as used oil. If you are a used oil handler, you should become familiar with these cleanup methods. They may also be part of a spill response action plan.
- Remove, repair, or replace the defective tank or container immediately.

Record Keeping

EPA uses 12-digit identification (ID) numbers to track used oil. Transporters hauling used oil must have a valid EPA ID number, and generators, collection centers, and aggregation points must use transporters with EPA ID numbers for shipping used oil off site. If you need an ID number, contact your EPA regional office or your state director. (You also can call the RCRA Hotline for more information.) Generators, collection centers, aggregation points, and any handler that transports used oil in shipments of less than 55 gallons do not need an ID number, but may need a state or local permit.

Used oil transporters, processors, burners, and marketers also must record each acceptance and delivery of used oil shipments. Records can take the form of a log, invoice, or other shipping document and must be maintained for three years. Re-refiners, processors, transfer facilities, and burners must have secondary containment systems (e.g., oil-impervious dike, berm, or retaining wall and a floor) so that oil can not reach the environment in the event of a leak or spill. EPA also encourages generators to use a secondary containment system to prevent used oil from contaminating the environment.

Burners of used oil that meets a certain set of quality standards called the used oil specifications are not regulated under the used oil management standards, as long as the used oil is burned in appropriate boilers, furnaces, or incinerators. Call the RCRA Hotline for more information.

Know and understand your state regulations governing the management of used oil—they might be stricter than EPA's. Contact your state or local environmental agency to determine your best course of action.

Mixing Used Oil and Hazardous Waste

In addition to EPA's used oil management standards, your business may be required to comply with federal and state hazardous waste regulations if your used oil becomes contaminated from mixing it with hazardous waste. If used oil is mixed with hazardous waste, it probably will have to be managed as a hazardous waste. Hazardous waste disposal is a lengthy, costly, and strict regulatory process. The only way to be sure your used oil does not become contaminated with hazardous waste is to store it separately from all solvents and chemicals and not to mix it with anything. If you believe your used oil might be mixed with a hazardous waste, call the RCRA Hotline at 800 424-9346. Hotline representatives can answer most of your questions or direct you to appropriate state environmental offices.

How Should My Business Manage Used Oil Filters?

The Filter Manufacturers' Council maintains a regulatory hotline and database to encourage the proper management of used oil filters. By calling the hotline at 800 99-FILTER, you can access the proper management requirements for your particular states. The database contains:

- Overviews of federal and state regulations relevant to the management of oil filters.
- Addresses and phone numbers of the regulatory agencies governing the management of used filters in each state.
- A listing of companies, by state, that transport, process, and recycle used filters.



How Can My Business Avoid Costly Cleanups?

Meeting the following conditions relieves service station dealers from responsibility for costly cleanups and liabilities associated with off-site handling of used oil. To meet these conditions, service stations must: (1) comply with the management standards described on page 2 and 3, (2) not mix used oil with any hazardous substance, and (3) accept used oil from Do-it-yourselfers (DIYs) and send it for recycling. Call the RCRA Hotline for complete details regarding this liability exemption.

Recommended Cleanup Practices

EPA recommends, but does not require, the following cleanup practices for used oil handlers: (1) maximize the recovery of used oil; (2) minimize the generation of used oil sorbent waste by choosing reusable sorbent materials; (3) use the spent sorbent materials to produce recycled sorbent materials; and (4) buy sorbent materials with recycled content.

Extraction devices (e.g., centrifuges, wringers, and compactors) can be used to recover used oil from reusable sorbent materials. Sorbent pads can be reused between two and eight times depending on the viscosity of the used oil. These technologies, while not required, can be used to reduce the number of sorbent pads ultimately sent for remanufacture, energy recovery, or disposal. The potential to reduce waste and save money (i.e., lower disposal costs for spent pads and lower per use cost of sorbent pads) by reusing and recycling sorbent pads can be substantial.

Managing Cleanup Materials

If you have used oil on rags or other sorbent materials from cleaning up a leak or spill, you should remove as much of the free-flowing oil as possible and manage the oil as you would have before it spilled.

Once the free-flowing used oil has been removed from these materials, they are not considered used oil and may be managed as solid waste as long as they do not exhibit a hazardous waste characteristic. Note, however, that materials from which used oil has been removed continue to be regulated as used oil if they are to be burned for energy recovery (regardless of the degree of removal).

What Else Can My Business Do to Conserve Oil?

- Minimize the amount of used oil you produce. The less used oil that is produced in the first place, the less that ultimately has to be handled. Businesses can filter, separate, and recondition used oil to prolong its usable life.
- Purchase re-refined used oil products instead of virgin oil products. Re-refined oil works just as well as virgin oil. Products that display the American Petroleum Institute (API) "starburst" meet the same high-quality specifications as virgin oil.
- Practice safe management of used oil. Don't mix used oil with anything. Always store used oil in leak-proof containers that are in secure areas safely away from workers and the environment. Send used oil to a re-refiner whenever possible.

For More Information

For additional information, call the RCRA Hotline. Callers within the Washington Metropolitan Area must dial 703 412-9810 or TDD 703 412-3323 (hearing impaired). Long-distance callers may call 800 424-9346 or TDD 800 553-7672. The RCRA Hotline operates weekdays, 9:00 am to 6:00 pm. Write to the RCRA Information Center (5305W), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.



United States
Environmental Protection Agency
Washington, DC 20460
(5305W)

Official Business
Penalty for Private Use
\$300

RECEIVED

NOV 24 1997

November 18, 1997

Oregon

**ATER WYNNE HEWITT
DODSON & SKERRITT**

**DEPARTMENT OF
ENVIRONMENTAL
QUALITY**

CERTIFIED MAIL P 494 534 446

Cascade General, Inc.
Jonathan A. Ater, Registered Agent
Ater, Wynne, Hewitt, Dodson & Skeritt
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201-6618

SEP?

Re: Notice of Violation, Compliance
Order, and Assessment of Civil Penalty
No. WMC/HW-NWR-97-176
Multnomah County

ORD 180761934

On July 10 and 11, 1997, Mr. Charles Clinton of the Department of Environmental Quality (Department or DEQ) conducted a hazardous waste compliance inspection of the Fuel Processors, Inc. facility located at 4150 N Suttle Road in Portland, Oregon. During that inspection, Mr. Clinton requested Fuel Processor to submit copies of certain shipping documents for additional investigation by DEQ. Ms. Rebecca Paul, of the Department inspected Fuel Processors' shipping documents, including documents regarding a shipment of Tectyl oils mixed with used oil shipped by Cascade General on or about May 30, 1996, to Oil Re-Refining Company. Ms. Paul concluded that Cascade General had failed to properly identify the Tectyl/Used Oil mixture as a hazardous waste and had shipped it off-site without the required manifest.

In a letter to the Department dated August 1, 1997, Cascade General claimed that no violations occurred because Tectyl was a product, and because the Used Oil Rules should have applied to the management of the Tectyl and used oil mixture. However, an examination of the relevant law and the facts presented by Cascade General confirm that there were violations of Oregon law and DEQ's hazardous waste management regulations. Prior to May 30, 1996, Cascade General had in its inventory 41 unopened barrels of Tectyl left over from work done for the United States Navy. Cascade General kept the Tectyl in its inventory and referred to it as product. On or about May 2, 1996, however, Cascade General contacted Oil Re-Refining in order to dispose of the Tectyl. Once Cascade General made the decision to dispose of the Tectyl, and at least by May 30, 1996, the Tectyl became a solid waste and subject to regulation under RCRA as a hazardous waste, including the requirement to make a hazardous waste determination as provided by OAR 340-102-011.

40 CFR § 261.20 states that any solid waste as defined in § 261.2 which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in Subpart C, including



811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

EXHIBIT
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ignitability. The waste Tectyl that Cascade General was managing has a flashpoint of approximately 106 degrees and was therefore an ignitable hazardous waste (D001). Cascade General claims that because the Tectyl was mixed with used oil, Part 279 of the CFR, the Used Oil Management Standards, should apply. However, 40 CFR § 279.10(2)(iii) states that regulation of mixtures of used oil and a waste which is hazardous because of ignitability will be regulated as used oil "provided that the resultant mixture does not exhibit the characteristic of ignitability under 40 CFR § 261.21." However, Cascade General did not make another Hazardous Waste Determination on the Tectyl/Used Oil mixture, as required, to show that the mixture was no longer ignitable and exempt from regulation as a hazardous waste.

Several violations were documented as a result of Ms. Paul's inspection of the records concerning the shipment of Tectyl through Oil Re-Refining. Those violations were cited in a Notice of Noncompliance (NON) sent to Cascade General on August 11, 1997, and included shipment of ignitable waste without preparing the required hazardous waste manifest, and failure to properly make hazardous waste determinations for the Tectyl waste or the mixture of the Tectyl and used oil.

In the enclosed Notice of Violation, Compliance Order, and Assessment of Civil Penalty, I have assessed a total of \$14,500 in civil penalties against Cascade General. For failure to make hazardous waste determinations I have assessed a civil penalty of \$4,500. This is a Class I violation. For failure to properly manifest hazardous waste transported for disposal I have assessed a civil penalty of \$10,000. This is a Class I violation and includes economic benefit. By not manifesting and otherwise treating its wastes as hazardous waste instead of used oil, Cascade General has avoided costs of \$3,475. In determining the amount of the each penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibits 1 and 2.

Appeal procedures are outlined in Section VI of the Notice. If you fail to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered against you.

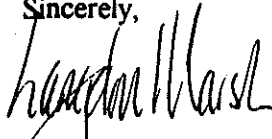
If you wish to discuss this matter, or if you believe there are mitigating factors which the Department might not have considered in assessing the civil penalty, you may request an informal discussion by attaching your request to your appeal. Your request to discuss this matter with the Department will not waive your right to a contested case hearing.

I look forward to your cooperation in complying with Oregon environmental law in the future. However, if any additional violations occur, you may be assessed additional civil penalties. Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If you are interested in having a portion of the civil penalty fund an SEP, you should review the enclosed SEP directive.

Cascade General, Inc.
Case No. WMC/HW-NWR-97-176
Page 3

If you have any questions about this action, please contact Larry M. Schurr with the Department's Enforcement Section in Portland at 229-6932 or toll-free at 1-800-452-4011, enforcement extension 6932.

Sincerely,



Langdon Marsh
Director

(e:\cascade97167\cover)

Enclosures

cc: Northwest Region, DEQ
Waste Management and Cleanup Division, DEQ, Jim Vilendre
Oregon Department of Justice
U.S. Environmental Protection Agency
Environmental Quality Commission
Multnomah County District Attorney

4516

1 CLASS I VIOLATIONS:

2 1. On or about May 30, 1996, Respondent violated OAR 340-102-011(2) by failing to
3 make a complete and accurate hazardous waste determination for each solid waste "residue", as
4 defined by OAR 340-100-010(2)(z) and 40 Code of Federal Regulations (CFR) § 261.2 (b)(1),
5 generated by Respondent. Specifically, Respondent failed to perform a hazardous waste determination
6 on 2,775 gallons of waste Tectyl and on a mixture of 2,775 gallons of waste Tectyl mixed with
7 approximately 600 gallons of used oil. Each waste stream was subsequently determined to be a D001
8 hazardous waste. This is a Class I violation pursuant to OAR 340-12-068(1)(b).

9 2. On or about May 30, 1996, Respondent violated 40 CFR § 262.20(a) by transporting
10 or offering for transportation, hazardous waste for off-site treatment, storage, or disposal without first
11 preparing a Hazardous Waste Manifest. Specifically, without first preparing a Hazardous Waste
12 Manifest, Respondent offered for transport a mixture of 2,775 gallons of waste Tectyl mixed with
13 approximately 600 gallons of used oil, (D001 hazardous waste). This is a Class I violation pursuant to
14 OAR 340-12-068(1)(e).

15 IV. COMPLIANCE ORDER

16 Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby
17 ORDERED to immediately initiate action to correct any continuing violation and come into full
18 compliance with applicable hazardous waste management regulations.

19 V. ASSESSMENT OF CIVIL PENALTIES

20 The Director imposes civil penalties for the violations cited in Section III as follows:

| <u>Violation</u> | <u>Penalty Amount</u> |
|------------------|-----------------------|
| 1 | \$4,500 |
| 2 | \$10,000 |

24 Respondent's total civil penalty is \$14,500

25 The findings and determination of the amounts of Respondent's civil penalties, pursuant to
26 OAR 340-12-045, are attached and incorporated as Exhibits 1 and 2.

27 ///

1 VI. OPPORTUNITY FOR CONTESTED CASE HEARING

2 Respondent has the right to have a formal contested case hearing before the Environmental
3 Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which
4 time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. **The**
5 **request for hearing must be made in writing, must be received by the Department's Rules**
6 **Coordinator within twenty (20) days from the date of service of this Notice, and must be**
7 **accompanied by a written "Answer" to the charges contained in this Notice.**

8 In the written Answer, Respondent shall admit or deny each allegation of fact contained in this
9 Notice, and shall affirmatively allege any and all affirmative claims or defenses to the assessment of this
10 civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause
11 shown:

- 12 1. Factual matters not controverted shall be presumed admitted;
- 13 2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or
14 defense;
- 15 3. New matters alleged in the Answer shall be presumed to be denied unless admitted in
16 subsequent pleading or stipulation by the Department or Commission.

17 Send the request for hearing and Answer to: DEQ Rules Coordinator, Office of the
18 Director, 811 S.W. Sixth Avenue, Portland, Oregon 97204. Following receipt of a request for
19 hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

20 Failure to file a timely request for hearing and Answer may result in the entry of a Default
21 Order for the relief sought in this Notice.

22 Failure to appear at a scheduled hearing or meet a required deadline may result in a dismissal of
23 the request for hearing and also an entry of a Default Order.

24 The Department's case file at the time this Notice was issued may serve as the record for
25 purposes of entering the Default Order.

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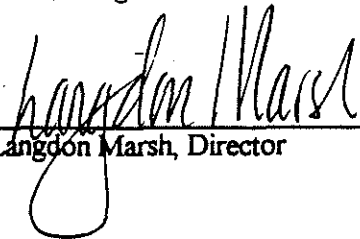
VII OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondent may also request an informal discussion with the Department by attaching a written request to the hearing request and Answer.

VIII PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before that time. Respondent's check or money order in the amount of \$14,500 should be made payable to "State Treasurer, State of Oregon" and sent to the Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.

11-18-97
Date


Langdon Marsh, Director

405-0

EXHIBIT 1

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

- VIOLATION 1:** Failure to perform hazardous waste determination.
- CLASSIFICATION:** This is a Class I violation pursuant to OAR 340-12-068(1)(b).
- MAGNITUDE:** Pursuant to OAR 340-12-090(3)(a)(C) and (D), the magnitude is moderate. Respondent failed to make a proper hazardous waste determination for two waste streams. That would normally constitute a minor magnitude violation. However, the magnitude is increased one level to moderate because more than 1000 gallons (approximately 2,775 gallons of Tectyl and 3,375 gallons of Tectyl/Used Oil mixture) of waste was involved in the violation.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

- "BP" is the base penalty which is \$3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1)(e).
- "P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions as follows:
- Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation
 - Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations
 - Case No. WQIW-NWR-97-112A dated 6/18/97: One Class I violation
- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.
- "R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid a foreseeable risk of committing a violation. Respondent is a large quantity generator and knew or should have known to perform a hazardous waste stream determination on the waste and used oil mixture.
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.
- "EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of \$0 as there is insufficient information on which to base a finding.

PENALTY CALCULATION:

$$\begin{aligned}\text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$3,000 + [(0.1 \times \$3,000) \times (5 - 2 + 0 + 2 + 0)] + \$0 \\ &= \$3,000 + [(\$300) \times (5)] + \$0 \\ &= \$3,000 + \$1,500 + \$0 \\ &= \$4,500\end{aligned}$$

EXHIBIT 2

**FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045**

- VIOLATION 2:** Offering hazardous waste for transportation without a Manifest.
- CLASSIFICATION:** This is a Class I violation pursuant to OAR 340-12-068(1)(e).
- MAGNITUDE:** Pursuant to OAR 340-12-090(3)(d)(i), the magnitude is major. Respondent failed to comply with the hazardous waste management requirements when more than 2,000 gallons of hazardous waste was involved.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
 $BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$

- "BP" is the base penalty which is \$6,000 for a Class I major magnitude violation in the matrix listed in OAR 340-12-042(1)(e).
- "P" is Respondent's prior significant action(s) and receives a value of +5 as Respondent has four Class I or equivalent prior significant actions as follows:
- Case No. AQP-NWR-95-327 dated 1/9/96: One Class II violation
 - Case No. HW-NWR-97-111 dated 6/18/97: One Class I violation and three Class II violations
 - Case No. WQIW-NWR-97-112A dated 6/18/97: One Class I violation
- "H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct the prior significant action and receives a value of -2 because Respondent took all feasible steps to correct each violation contained in the above cited prior significant actions.
- "O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because the violation was a single occurrence.
- "R" is the cause of the violation and receives a value of +2 because Respondent was negligent. Respondent failed to take reasonable care to avoid causing the violation. Respondent is a large quantity generator and knew or should have known to manifest hazardous waste transported or offered for transport for off-site treatment, storage, or disposal. Failure to manifest such hazardous waste was failure to take reasonable care to avoid a foreseeable risk of committing the violation.
- "C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 because the violation could not be corrected.
- "EB" is the approximate dollar sum of the economic benefit that Respondent gained through noncompliance, and receives a value of \$3,475 which represents the cost avoided by failing to dispose of hazardous wastes in the proper manner, as calculated by the US EPA BEN computer model, pursuant to OAR 340-12-045(1)(c)(F)(i) and (iii).

PENALTY CALCULATION:

$$\begin{aligned}\text{Penalty} &= \text{BP} + [(0.1 \times \text{BP}) \times (\text{P} + \text{H} + \text{O} + \text{R} + \text{C})] + \text{EB} \\ &= \$6,000 + [(0.1 \times \$6,000) \times (5 - 2 + 0 + 2 + 0)] + \$3,475 \\ &= \$6,000 + [(\$600) \times (5)] + \$3,475 \\ &= \$6,000 + \$3,000 + \$3,475 \\ &= \$12,475\end{aligned}$$

Pursuant to ORS 466.880(3) the amount of a penalty may not exceed \$10,000 per day.
Therefore: \$10,000 is the adjusted amount of Respondent's penalty for Violation 2

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DIVISION 100
HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

Hazardous Waste Management System: General

340-100-001 thru 340-100-022

[DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; DEQ 21-1984, f. & ef. 11-8-84; Superseded by DEQ 8-1985, f. & ef. 7-25-85]

Purpose and Scope

340-100-001

(1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

(2) The purpose of the management program contained in OAR Chapter 340, Divisions 100 to 110 and 120 is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous waste minimization, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

(3) OAR Chapter 340, Divisions 100 to 106 incorporated, by reference, hazardous waste management regulations of the federal program, included in 40 CFR Parts 260 to 266, 268, 270 and Subpart A of 124, into Oregon Administrative Rules. Therefore, persons must consult these parts of 40 CFR in addition to OAR Chapter 340, Divisions 100 to 106 and 120 to determine all applicable hazardous waste management requirements.

(4) A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.105, 466.195 & Ch. 468

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations

340-100-002

(1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, 108, 109, 111, 113 and 120, the rules and regulations governing the management of hazardous waste, including its generation, transportation, treatment, storage, recycling and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270, 273 and Subpart A and Subpart B of Part 124 promulgated through June

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6, 1997 are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215.¹

(2) Except as otherwise modified or specified by OAR Chapter 340, Division 111, the rules and regulations governing the standards for the management of used oil, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 279 promulgated through June 6, 1997,² are adopted by reference into Oregon Administrative Rules and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

(Comment: The Department uses the federal preamble accompanying the federal regulations and federal guidance as a basis for regulatory decision making).

Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.

Stat. Auth.: ORS Ch 183.337, 465.009, 466.020, 468.020

Stat. Implemented: ORS Ch. 466.015, 466.075, 466.086

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 10-1987, f. & ef. 6-11-87; DEQ 23-1987, f. & ef. 12-16-87; DEQ 19-1988, f. & cert. ef. 7-13-88; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 11-1993, f. & cert. ef. 7-29-93; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 31-1994(Temp), f. 12-6-94, cert. ef. 12-19-94

Public disclosure and confidentiality

340-100-003 (1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) All records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and regulations are open for public inspection and copying except as provided in sections (3) to (7) of this rule. Provided however, that nothing in this rule is intended to alter any exemption from public disclosure or public inspection provided by any provision of ORS Chapter 192 or other Oregon law.

(3)(a) Records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and regulations may be claimed as trade secret by the submitted in accordance with ORS 192.410 through 192.505 and 466.090.

¹ Note: On March 3, 1992, in 57 Federal Register 7628, EPA promulgated a re-adoption of 40 CFR 261.3, the mixture and derived-from rules, because the rules had been vacated as a result of federal litigation. The EQC did not adopt this amendment at that time because the State had independently and legally adopted mixture and derived-from rules under state law in 1984, and has indicated its intent to maintain the mixture and derived-from rules with each annual rulemaking update.

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(b) The Department shall designate a Document Control Officer for the purpose of receiving, managing, and securing confidential information. The following information shall be secured by the Document Control officer:

- (A) claimed trade secret information until the claim is withdrawn by the submitter, determined not to be confidential under section (6) of this rule, or invalidated;
 - (B) information determined to be trade secret; and
 - (C) any other information determined by court order or other process to be confidential.
- (c) All Uniform Hazardous Waste Manifest information submitted on any required report pursuant to the hazardous waste statutes, rules, and regulations is publicly available and is not subject to trade secret confidentiality claims.

(d) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) The following procedures shall be followed when a claim of trade secret is made:

(a) Each individual page of any submission that contains the claimed trade secret information must be clearly marked as "trade secret," "confidential," "confidential business information," or equivalent. If no claim by appropriate marking is made at the time of submission, the submitter may not afterwards make a claim of trade secret.

(b) A late submission of the trade secret substantiation will invalidate the trade secret claim. Written substantiation in accordance with paragraph 4(d) of this rule:

(A) Must accompany any information submitted pursuant to OAR 340-102-012, 340-102-041, 340-104-075, 340-105-010, 340-105-013, 340-105-014, 340-105-020, 340-105-021, 40 CFR 262.12, 264.11, 265.11 or 270.42, or

(B) For all other information submitted to the Department, written substantiation must be provided pursuant to subsection 5 of this rule.

(c) Trade secret information must meet the following criteria:

- (A) Not the subject of a patent;
- (B) Only known to a limited number of individuals within an organization;
- (C) Used in a business which the organization conducts;
- (D) Of potential or actual commercial value; and
- (E) Capable of providing the user with a business advantage over competitors not having the information.

(d) Written substantiation of trade secret claims shall address the following:

- (A) Identify which portions of information are claimed trade secret.
- (B) Identify how long confidential treatment is desired for this information.
- (C) Identify any pertinent patent information.
- (D) Describe to what extent the information has been disclosed to others, who knows about the information, and what measures have been taken to guard against undesired disclosure of the information to others.

(E) Describe the nature of the use of the information in business.

(F) Describe why the information is considered to be commercially valuable.

(G) Describe how the information provides a business advantage over competitors.

(H) If any of the information has been provided to other government agencies, identify which one(s).

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(l) Include any other information that supports a claim of trade secret.

(e) A public version of the document containing the claimed trade secret information must be submitted at the time the trade secret substantiation is required as provided in subsection (4)(b)(A) and subsection (5)(a) of this rule.

(5)(a) Written trade secret substantiation as required under subsection (4)(b)(B) and a public version of the information as required by subsection (4)(e) shall be provided within 15 working days of receipt of any Department request for trade secret substantiation or the public version of the information. The Department may extend the time, either at the Department's initiative or the claimant's request, up to an additional 30 consecutive days in order to provide the substantiation and public version, if the complexity or volume of the claimed trade secret information is such that additional time is required for the claimant to complete the response. The Department shall request the written trade secret substantiation or the public information version if:

(A) a public records request is received which would reasonably include the information, if the information were not declared as trade secret, or

(B) it is likely that the Department eventually will be requested to disclose the information at some future time and thus have to determine whether the information is entitled to trade secret confidentiality. This includes information that relates to any permit, corrective action, or potential violation information.

(6) When evaluating a trade secret claim the Department shall review all information in its possession relating to the trade secret claim to determine whether the trade secret claim meets the requirements for trade secret as specified in paragraphs 4(c) and 4(d) of this rule. The Department shall provide written notification of any final trade secret decision and the reason for it to the person submitting the trade secret claim within 10 working days of the decision date.

(a) If the Department or the Attorney General determines that the information meets the requirements for trade secret, the information shall be maintained as confidential.

(b) If the Department determines that the information does not meet the requirements for trade secret, the Department shall request a review by the Attorney General. If the Attorney General determines that the information does not meet the requirements for trade secret, the Department may make the information available to the public no sooner than 5 working days after the date of the written notification to the person submitting the trade secret claim.

(c) A person claiming information as trade secret may request the Department to make a trade secret determination. The person must submit the written substantiation in accordance with paragraph 4(d) of this rule and the public version in accordance with paragraph 4(e) of this rule. The Department shall make the determination within 30 days after receiving the request, written substantiation, and the public version.

(7) Records, reports, and information submitted pursuant to these rules shall be made available to the Environmental Protection Agency (EPA) upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

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(Note: It is suggested that claims of trade secret be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.)

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 466.020, 468.020 & Ch. 646

Stat. Implemented: ORS Ch. 192.410 to 192.505, 466.015, 466.075, 466.090

Table of Contents, Divisions 100 to 120

340-100-004 The following Divisions including the incorporation of regulations in **40 CFR, Parts 260 to 266, 268, 270 and 124**, comprise the Oregon hazardous waste management program:

Division Subject

100 Hazardous Waste Management
System: General

101 Identification and Listing of
Hazardous Waste

102 Standards Applicable to Generators
of Hazardous Waste

103 Standards Applicable to Transporters
of Hazardous Waste

104 Standards for Owners and Operators
of Hazardous Waste Treatment,
Storage and Disposal Facilities

105 Management Facility Permits

106 Permitting Procedures

108 Spills and Other Incidents

109 Management of Pesticide Wastes

110 Polychlorinated Biphenyls (PCBs)

120 Additional Siting and Permitting
Requirements for Hazardous Waste

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and PCB Treatment and Disposal
Facilities

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183, 459, 466.020, 466.075, 466.105, 466.195 & Ch. 468
Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

Public Availability of Information

340-100-005

(1) Upon request, the Department shall make available Department records regarding facilities and sites for the treatment, storage, and disposal of hazardous waste, in accordance with ORS 192.410 through 192.500.

(2) Within 20 days of receipt of a request for records, under section (1) of this rule, the Department shall either grant or deny the request. If the Department fails to act within 20 days, the request shall be deemed to be denied.

(3) In the event that a request for records is denied, the Department shall notify the requestor, in writing, of the basis for the denial and of the requestor's right to appeal the denial to the Attorney General of the State of Oregon, as provided in ORS 192.450.

(4) In the event that a claim of confidentiality has been made, under OAR 340-100-003, and such claim cannot be resolved within 20 days of receipt of a request for records, the Department shall notify the requestor within that 20-day period that the request is denied until the claim of confidentiality can be resolved.

(5) The Department shall consider the reduction or waiver of any fees required to provide copies of records, if the records are requested by the news media, a non-profit public interest group, or any other person or entity, and the requestor provides a written statement in support of reduction or waiver. The Department may reduce or waive fees, if the Department determines that reduction or waiver serves the public interest, taking into consideration the magnitude of the request, the Department's resources, whether the information would not be obtainable by the requestor without the reduction or waiver and any other factors relevant to the public interest.

Stat. Auth.: ORS Ch. 183, 466 & 468
Hist.: DEQ 10-1987, f. & ef. 6-11-87

Definitions

340-100-010 (1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in 40 CFR 260.10.

(2) When used in Divisions 100 to 110 and 120 of this chapter, the following terms have the meanings given below:

(a) "Administrator" means:

(A) The "Department", except as specified in paragraph (2)(a)(B) or (C) of this rule;

(B) The "Commission", when used in 40 CFR 261.10 and 261.11; or

(C) The Administrator of the U.S. Environmental Protection Agency, when used in 40 CFR 262.50.

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(b) "Aquatic LC₅₀ (median aquatic lethal concentration)" means that concentration of a substance which is expected in a specific time to kill 50 percent of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC₅₀ is expressed in milligrams of the substance per liter of water;

(c) "Beneficiation of Ores and Minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process);

(d) "Collection". See "Storage";

(e) "Commission" means the Environmental Quality Commission;

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: The adoption of rules and issuance of orders thereon pursuant to ORS 466.020, 466.075 and 466.510; the making of findings to support declassification of hazardous wastes pursuant to ORS 466.015(3); the issuance of exemptions pursuant to ORS 466.095(2); the issuance of disposal site permits pursuant to ORS 466.140(2); and the holding of hearings pursuant to ORS 466.130, 466.140(2), 466.170, 466.185, and 466.190;

(g) "Director" means:

(A) The "Department", except as specified in paragraph (2)(g)(B) of this rule; or

(B) The "permitting body", as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(h) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700;

(i) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality;

(j) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department;

(k) "Existing Hazardous Waste Management (HWM) Facility" or "Existing Facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:

(A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

(B) (i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations — which cannot be canceled or modified without substantial loss — for physical construction of the facility to be completed within a reasonable time.

(l) "Extraction of Ores and Minerals" means the process of mining and removing ores and minerals from the earth;

(m) "Generator" means the person who, by virtue of ownership, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste;

(n) "Hazardous Substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101;

(o) "Hazardous Waste" means a hazardous waste as defined in 40 CFR 261.3;

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(p) "Identification Number" means the number assigned by DEQ to each generator, transporter, and treatment, storage and disposal facility;

(q) "License". See "Permit";

(r) "Management Facility" means a hazardous waste treatment, storage or disposal facility;

(s) "Off-site" means any site which is not on-site;

(t) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see 40 CFR 173.151);

(u) "Permitting Body" means:

(A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits; or

(B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.

(v) "Permit" or "License" means the control document that contains the requirements of ORS Chapter 466 and OAR Chapter 340, Divisions 104 to 106 and 120. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit;

(w) "RCRA" or "Resource Conservation and Recovery Act", when used to refer to a federal law, means Oregon law;

(x) "RCRA Permit" means Oregon hazardous waste management facility permit;

(y) "Regional Administrator" means:

(A) The "Department", except as specified in paragraph (2)(y)(B) or (C) of this rule;

(B) The "permitting body", as defined in section (2) of this rule when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17;

(C) The "Commission", when used in 40 CFR 260.30 through 260.41.

(z) "Residue" means solid waste as defined in 40 CFR 261.2;

(aa) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity;

(bb) "Spill" means unauthorized disposal;

(cc) "Storage" or "Collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste;

(dd) "Waste Management Unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the OAR Chapter 340, Division 104 regulations (principally the technical standards in Subparts K-N of 40 CFR Part 264) establish requirements that are to be implemented on a unit-by-unit basis.

(3) When used in Divisions 100 to 106 and 108 to 109 and 113 of this chapter, the following terms have the meanings given below:

(a) "Aeration" means a specific treatment for decontaminating an empty volatile substance container consisting of removing the closure and placing the container in an inverted position for at least 24 hours.

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(b) "Beneficial Use" means the return of unused pesticide product (e.g., pesticide equipment rinsings, excess spray mixture) or empty pesticide container(s) without processing to the economic mainstream, as a substitute for raw materials in an industrial process or as a commercial product (e.g., melting a container for scrap metal).

(c) "Department" means the Department of Environmental Quality.

(d) "Empty Container" means a container from which:

(A) All the contents have been removed that can be removed using the practices commonly employed to remove materials from that type of container; and

(B)(i) No more than one inch of residue remains on the bottom of the container; or

(ii) No more than three percent of the total capacity of the container remains in the container if the container is less than or equal to 110 gallons in size; or

(iii) No more than 0.3% of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size; or

(iv) If the material is a compressed gas, the pressure in the container is atmospheric.

(e) "Household Use" means use by the home or dwelling owner in or around households (including single and multiple residences, hotels and motels).

(f) "Jet Rinsing" means a specific treatment for an empty container using the following procedure:

(A) A nozzle is inserted into the container, or the empty container is inverted over a nozzle such that all interior surfaces of the container can be rinsed; and

(B) The container is thoroughly rinsed using an appropriate solvent.

(g) "Multiple Rinsing" means a specific treatment for an empty container repeating the following procedure a minimum of three times:

(A) An appropriate solvent is placed in the container in an amount equal to at least 10% of the container volume; and

(B) The container is agitated to rinse all interior surfaces; and

(C) The container is opened and drained, allowing at least 30 seconds after drips start.

(h) "Pesticide" means any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling, or mitigating of insects, fungi, weeds, rodents, or predatory animals; including but not limited to defoliant, desiccants, fungicides, herbicides, insecticides, and nematocides as defined by ORS 634.006.

(i) "Pesticide Equipment" means any equipment, machinery or device used in pesticide manufacture, repackaging, formulation, bulking and mixing, use, cleaning up spills, or preparation for use or application of pesticides, including but not limited to aircraft, ground spraying equipment, hoppers, tanks, booms and hoses.

(j) "Pesticide Residue" is a hazardous waste that is generated from pesticide operations and pesticide management, such as, from pesticide use (except household use), manufacturing, repackaging, formulation, bulking and mixing, and spills. Pesticide residue includes, but is not limited to, unused commercial pesticides, tank or container bottoms or sludges, pesticide spray mixture, container rinsings and pesticide equipment washings, and substances generated from pesticide treatment, recycling, disposal, and rinsing spray and pesticide equipment. Pesticide residue does not include pesticide-containing materials that are used according to label instructions, and substances such as, but not limited to treated soil, treated wood, foodstuff, water, vegetation, and treated seeds where pesticides were applied according to label instructions.

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(k) "Public-Use Airport" means an airport open to the flying public which may or may not be attended or have service available.

(l) "Reuse" means the return of a commodity to the economic mainstream for use in the same kind of application as before without change in its identity (e.g., a container used to repackage a pesticide formulation).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 465.009, 466.020, 468.020

Stat. Implemented: ORS Ch. 465.009, 466.075, 466.105,

References

340-100-011

(1) In addition to the publications listed in 40 CFR 260.11, when used in OAR Chapter 340, Divisions 100 to 110 and 120, the following publications are incorporated by reference:

(a) CFR, Title 40, U.S. Environmental Protection Agency;

(b) CFR, Title 49, U.S. Department of Transportation.

(2) The references listed in section (1) of this rule and in 40 CFR 260.11 are available for inspection at the Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, OR 97204.

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CHAPTER 340. DIVISION 102 - DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 102

STANDARDS APPLICABLE TO
GENERATORS OF HAZARDOUS WASTE

Standards Applicable to Generators of Hazardous Waste

340-102-010 thru 340-102-052

[DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; DEQ 27-1984, f. & ef. 2-26-84;
Superceded by DEQ 8-1985, f. & ef. 7-25-85]

Purpose, Scope and Applicability

340-102-010 (1) The purpose of this Division is to establish standards for generators of hazardous waste.

(2) Persons must also consult 40 CFR Parts 124, 260 to 266, 268, 270, 273 and 279 which are incorporated by reference in OAR 340-100-002, to determine all applicable hazardous waste management requirements.

(3) Any person identified in section (4) of this rule is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.

(4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue other than unused commercial chemical product pesticide from:

- (a) pesticide manufacturing, repackaging, formulating, bulking, mixing, application, use, and cleaning up spilled material;
- (b) agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland);
- (c) industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards);
- (d) structural pest control (for example, in human dwellings);
- (e) ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf);
- (f) forest pest control;
- (g) recreational pest control (for example, in parks or golf courses);
- (h) governmental pest control (for example, for clearing a right-of-way or vector, predator, and aquatic pest control);
- (i) seed treatment;
- (j) pesticide demonstration and research; or
- (k) wood treatment (for example, lumber, poles, ties and other wood products).

(5) A person who generates a hazardous waste as defined by 40 CFR 261.3 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS 466.185 to 466.210, 459.992 and 466.995, 459.995, 466.880, 466.890, 466.895, 466.900 and OAR Chapter 340, Division 12.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183.325 to 183.337, 459, 465.009, 466.020, 465.009, 468.020

Stat. Implemented: ORS Ch. 466.075, 466.195

Hazardous Waste Determination

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 102 - DEPARTMENT OF ENVIRONMENTAL QUALITY

340-102-011

(1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in OAR 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) Persons should first determine if the waste is excluded from regulation under 40 CFR 261.4 or OAR 340-101-004;

(b) Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of OAR 340-101-033;

NOTE: Even if the waste is listed, the generator still has an opportunity under OAR 340-100-022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.

(c) Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is hazardous under Subpart C of 40 CFR Part 261 by either:

(A) Testing the waste according to the methods set forth in Subpart C of 40 CFR 261, or according to an equivalent method approved by the Department under OAR 340-100-021.

NOTE: In most instances, the Department will not consider approving a test method until it has been approved by EPA.

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and 40 CFR Part 264, 265 and 268 for possible exclusions or restrictions pertaining to management of his/her specific waste.

NOTE: 40 CFR 268.3 prohibits dilution of a hazardous waste to meet Land Disposal Restriction treatment standards. Diluting waste without a permit to meet any hazardous waste standard is prohibited.

(e) If the waste is not identified as hazardous by application of subsection (2)(b) and/or (c) of this rule, persons must determine if the waste is listed under OAR 340-101-033.

(3) A person who generates a residue, as defined in OAR 340-100-010(2)(z), must keep a copy of the documentation used to determine whether the residue is a hazardous waste, under section (2) of this rule, for a minimum of three years after the waste stream is no longer generated, or as prescribed in 40 CFR 262.40(c). If no documentation is created in making the wastestream determination, then no new documentation need be created.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 192, 465.009, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 6-1994, f. & cert. ef. 3-22-94

Identification Number and Verification

340-102-012 In addition to the provisions of 40 CFR 262.12, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and identification numbering system (Dun and Bradstreet) for generators who register in the future. Effective January 1, 1991, and annually thereafter, hazardous waste generators and hazardous waste management and recycling facilities shall verify registration information on a form provided by the Department.

Subpart C—Characteristics of Hazardous Waste

- 261.20 General.
- 261.21 Characteristic of ignitability.
- 261.22 Characteristic of corrosivity.
- 261.23 Characteristic of reactivity.
- 261.24 Toxicity characteristic.

Subpart D—Lists of Hazardous Wastes

- 261.30 General.
- 261.31 Hazardous wastes from non-specific sources.
- 261.32 Hazardous wastes from specific sources.
- 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.
- 261.35 Deletion of certain hazardous waste codes following equipment cleaning and replacement.
- Appendix I—Representative Sampling Methods
- Appendix II—Method 1311 Toxicity Characteristic Leaching Procedure (TLCPL)
- Appendix III—Chemical Analysis Test Methods
- Appendix IV—[Reserved for Radioactive Waste Test Methods]
- Appendix V—[Reserved for Infectious Waste Treatment Specifications]
- Appendix VI—[Reserved for Etiologic Agents]
- Appendix VII—Basis for Listing Hazardous Waste
- Appendix VIII—Hazardous Constituents
- Appendix IX—Wastes Excluded Under §§ 260.20 and 260.22
- Appendix X—[Removed]

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

Source: 45 FR 33119, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: For a document removing the OMB control number wherever it appeared in part 261, see 58 FR 34370, June 25, 1993.

Subpart A—General**§ 261.1 Purpose and scope.**

(a) This part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265, 268, and Parts 270, 271, and 124 of this chapter and which are subject to the notification requirements of section 3010 of RCRA. In this part:

- (1) Subpart A defines the terms "solid waste" and "hazardous waste", identifies those wastes which are excluded from regulation under Parts 262 through 266, 268, and 270 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.
- (2) Subpart B sets forth the criteria used by EPA to identify characteristics of hazardous waste and to list particular hazardous wastes.
- (3) Subpart C identifies characteristics of hazardous waste.
- (4) Subpart D lists particular hazardous wastes.

(b)(1) The definition of solid waste contained in this part applies only to wastes that also are hazardous for purposes of the regulations implementing Subtitle C of RCRA. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(2) This part identifies only some of the materials which are solid wastes and hazardous wastes under sections 3007, 3013, and 7003 of RCRA. A material which is not defined as a solid waste in this part, or is not a hazardous waste identified or listed in this part, is still a solid waste and a hazardous waste for purposes of these sections if:

- (i) In the case of sections 3007 and 3013, EPA has reason to believe that the material may be a solid waste within the meaning of section 1004(27) of RCRA and a hazardous waste within the meaning of section 1004(5) of RCRA; or
- (ii) In the case of section 7003, the statutory elements are established.

(c) For the purposes of §§ 261.2 and 261.6:

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(1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) "Sludge" has the same meaning used in § 260.10 of this chapter;

(3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

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(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

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(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under 261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986]

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§ 261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by § 261.4(a) or that is not excluded by variance granted under §§ 260.30 and 260.31.

(2) A *discarded material* is any material which is:

(i) *Abandoned*, as explained in paragraph (b) of this section; or

(ii) *Recycled*, as explained in paragraph (c) of this section; or

(iii) Considered *inherently waste-like*, as explained in paragraph (d) of this section.

(b) Materials are solid waste if they are *abandoned* by being:

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(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

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(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

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21, 320

(1) *Used in a manner constituting disposal*.

- (i) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:
 - (A) Applied to or placed on the land in a manner that constitutes disposal; or
 - (B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

TABLE 1

| | Use constituting disposal (\$261.2(c)(1)) | Energy recovery/fuel (\$261.2(c)(2)) | Reclamation (\$261.2(c)(3)) | Speculative accumulation (\$261.2(c)(4)) | |
|--|--|---|--------------------------------|---|-------------------|
| | (1) | (2) | (3) | (4) | |
| Spent Materials | (*) | (*) | (*) | (*) | |
| Sludges (listed in 40 CFR Part 261.31 or 261.32) | (*) | (*) | (*) | (*) | RCRA 54 |
| Sludges exhibiting a characteristic of hazardous waste | (*) | (*) | (*) | (*) | RCRA 54, 126, 272 |
| By-products (listed in 40 CFR Part 261.31 or 261.32) | (*) | (*) | (*) | (*) | |
| By-products exhibiting a characteristic of hazardous waste | (*) | (*) | (*) | (*) | RCRA 64, 131 |
| Commercial chemical products listed in 40 CFR 261.33 | (*) | (*) | (*) | (*) | RCRA 29, 262 |
| Scrap metal | (*) | (*) | (*) | (*) | |

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in § 261.1.

- (ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use. RCRA 275

- (2) **Burning for energy recovery.** (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are: RCRA 29, 131, 320
 - (A) Burned to recover energy;
 - (B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

- (3) **Reclaimed.** Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed. RCRA 76, 235, 262

- (4) **Accumulated speculatively.** Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively. RCRA 272

(d) **Inherently waste-like materials.** The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

- (i) The material must contain a bromine concentration of at least 45%; and
- (ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and
- (iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

- (i)(A) The materials are ordinarily disposed of, burned, or incinerated; or
- (B) The materials contain toxic constituents listed in Appendix VIII of Part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and
- (ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) **Materials that are not solid waste when recycled.**

- (1) Materials are not solid wastes when they can be shown to be recycled by being:

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(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

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(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

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(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 664, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7206, Feb. 21, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 48041, Sept. 19, 1994]

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§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subpart C of this part only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table I to § 261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§ 260.20 and 260.22 of this chapter.

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(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under § 261.4(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part for which the hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are still subject to the requirements of part 268 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal).

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(iv) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§ 260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2) (i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and:

(A) One or more of the following solvents listed in § 261.31—carbon tetrachloride, tetrachloroethylene, trichloroethylene—*Provided*, That the maximum total weekly usage of these solvents (other than the amounts that can

be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million; or

(B) One or more of the following spent solvents listed in § 261.31—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in § 261.32—heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

(D) A discarded commercial chemical product, or chemical intermediate listed in § 261.33, arising from *de minimis* losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this paragraph (a)(2)(iv)(D), "*de minimis*" losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsewater from empty containers or from containers that are rendered empty by that rinsing; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D of this part, *Provided*, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

(v) *Rebuttable presumption for used oil.* Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available for the cost of \$110.00 from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954, 202-783-3238 (document number 955-001-0000-1).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D of this part, when the waste first meets the listing description set forth in subpart D of this part.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in subpart C of this part.

(c) Unless and until it meets the criteria of paragraph (d) of this section:

(1) A hazardous waste will remain a hazardous waste.

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and

that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

(B) Waste from burning any of the materials exempted from regulation by § 261.6(a)(3) (iv) through (vi).

(C)(1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in paragraphs (6), (7), and (13) of the definition for "Industrial furnace" in 40 CFR 260.10), that are disposed in subtitle D units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

| Constituent | Maximum for any single composite sample—TCLP (mg/L) |
|--|---|
| Generic exclusion levels for K061 and K062 nonwastewater HTMR residues | |
| Antimony | 0.10 |
| Arsenic | 0.50 |
| Barium | 7.6 |
| Beryllium | 0.010 |
| Cadmium | 0.050 |
| Chromium (total) | 0.33 |
| Lead | 0.15 |
| Mercury | 0.009 |
| Nickel | 1.0 |
| Selenium | 0.16 |
| Silver | 0.30 |
| Thallium | 0.020 |
| Zinc | 70 |

| Constituent | Maximum for any single composite sample—TCLP (mg/L) |
|---|---|
| Generic exclusion levels for F006 nonwastewater HTMR residues | |
| Antimony | 0.10 |
| Arsenic | 0.50 |
| Barium | 7.8 |
| Beryllium | 0.010 |
| Cadmium | 0.050 |
| Chromium (total) | 0.33 |
| Cyanide (total) (mg/kg) | 1.8 |
| Lead | 0.15 |
| Mercury | 0.009 |
| Nickel | 1.0 |
| Selenium | 0.16 |
| Silver | 0.30 |
| Thallium | 0.020 |
| Zinc | 70 |

(2) A one-time notification and certification must be placed in the facility's files and sent to the EPA region or authorized state for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to subtitle D units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the subtitle D unit receiving the waste changes. However, the generator or treater need only notify the EPA region or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the EPA region or authorized state by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the subtitle D unit receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in subpart C of this part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of part 268, even if they no longer exhibit a characteristic at the point of land disposal.)

(2) In the case of a waste which is a listed waste under subpart D of this part, contains a waste listed under subpart D of this part or is derived from a waste listed in subpart D of this part, it also has been excluded from paragraph (c) of this section under §§ 260.20 and 260.22 of this chapter.

(e) [Removed]

(f) Notwithstanding paragraphs (a) through (d) of this section and provided the debris as defined in part 268 of this chapter does not exhibit a characteristic identified at subpart C of this part, the following materials are not subject to regulation under 40 CFR parts 260, 261 to 266, 268, or 270:

(1) Hazardous debris as defined in part 268 of this chapter that has been treated using one of the required extraction or destruction technologies specified in Table 1 of § 268.45 of this chapter; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in part 268 of this chapter that the Regional Administrator, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

[45 FR 33119, May 19, 1980, as amended at 46 FR 56588, Nov. 17, 1981; 50 FR 14219, Apr. 11, 1985; 50 FR 49202, Nov. 29, 1985; 52 FR 11821, Apr. 13, 1987; 54 FR 36641, Sept. 1, 1989; 56 FR 3876, Jan. 31, 1991; 56 FR 32692, July 17, 1991; 56 FR 41176, Aug. 19, 1991; 57 FR 7632, Mar. 3, 1992; 57 FR 23063, June 1, 1992; 57 FR 37263, Aug. 18, 1992; 57 FR 39275, Aug. 28, 1992; 57 FR 41173, Sept. 9, 1992; 57 FR 41611, Sept. 10, 1992; 57 FR 49279, Oct. 30, 1992; 59 FR 38545, July 28, 1994]

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this part:

(1)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended.

[*Comment:* This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

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- (9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and
- (ii) wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic (TC) specified in § 261.24 of this part when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

(12) Recovered oil from petroleum refining, exploration and production, and from transportation incident thereto, which is to be inserted into the petroleum refining process (SIC Code 2911) along with normal process streams prior to crude distillation or catalytic cracking. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land, and must not be accumulated speculatively, before being so recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration and production, and transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing hazardous wastes listed in 40 CFR part 261 D (e.g., K048-K052, F037, F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in 40 CFR 279.1.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

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(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

(i) Receives and burns only

(A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and

(B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

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(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated primarily from the combustion of coal or other fossil fuels, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

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(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in subpart D due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in paragraphs (b)(6)(i) (A), (B), and (C) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrometan/ retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste. For purposes of § 261.4(b)(7), beneficiation of ores and minerals is restricted to the following activities: Crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and *in situ* leaching. For the purpose of § 261.4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes:

- (i) Slag from primary copper processing;
- (ii) Slag from primary lead processing;
- (iii) Red and brown muds from bauxite refining;
- (iv) Phosphogypsum from phosphoric acid production;
- (v) Slag from elemental phosphorus production;
- (vi) Gasifier ash from coal gasification;
- (vii) Process wastewater from coal gasification;
- (viii) Calcium sulfate wastewater treatment plant sludge from primary copper processing;
- (ix) Slag tailings from primary copper processing;
- (x) Fluorogypsum from hydrofluoric acid production;
- (xi) Process wastewater from hydrofluoric acid production;
- (xii) Air pollution control dust/sludge from iron blast furnaces;
- (xiii) Iron blast furnace slag;

- (xiv) Treated residue from roasting/leaching of chrome ore;
- (xv) Process wastewater from primary magnesium processing by the anhydrous process;
- (xvi) Process wastewater from phosphoric acid production;
- (xvii) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;
- (xviii) Basic oxygen furnace and open hearth furnace slag from carbon steel production;
- (xix) Chloride process waste solids from titanium tetrachloride production;
- (xx) Slag from primary zinc processing.

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(8) Cement kiln dust waste, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

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(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials' intended end use.

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(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of § 261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under part 280 of this chapter.

(11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) in § 261.24 of this part that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if:

- (i) Operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed; and
- (ii) A copy of the written agreement has been submitted to: Characteristics Section (OS-333), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

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(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in Subpart D of this part if these oil filters have been gravity hot-drained using one of the following methods:

- (i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
- (ii) Hot-draining and crushing;
- (iii) Dismantling and hot-draining; or
- (iv) Any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

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(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265, 268, 270, 271 and 124 of this chapter or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

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(d) *Samples.* (1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or Parts 262 through 268 or Part 270 or Part 124 of this chapter or to the notification requirements of section 3010 of RCRA, when:

- (i) The sample is being transported to a laboratory for the purpose of testing; or

- (2) The name, address, and telephone number of the facility that will perform the treatability study;
 - (3) The quantity of the sample;
 - (4) The date of shipment; and
 - (5) A description of the sample, including its EPA Hazardous Waste Number.
- (iv) The sample is shipped to a laboratory or testing facility which is exempt under § 261.4(f) or has an appropriate RCRA permit or interim status.
- (v) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:
- (A) Copies of the shipping documents;
 - (B) A copy of the contract with the facility conducting the treatability study;
 - (C) Documentation showing:
 - (1) The amount of waste shipped under this exemption;
 - (2) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;
 - (3) The date the shipment was made; and
 - (4) Whether or not unused samples and residues were returned to the generator.
 - (vi) The generator reports the information required under paragraph (e)(v)(C) of this section in its biennial report.
- (3) The Regional Administrator may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Regional Administrator may grant requests on a case-by-case basis for quantity limits in excess of those specified in paragraphs (e)(2) (i) and (ii) and (f)(4) of this section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:
- (i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), size of the unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.
 - (ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
 - (iii) The additional quantities and timeframes allowed in paragraph (e)(3) (i) and (ii) of this section are subject to all the provisions in paragraphs (e) (1) and (e)(2) (iii) through (vi) of this section. The generator or sample collector must apply to the Regional Administrator in the Region where the sample is collected and provide in writing the following information:
 - (A) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;
 - (B) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;
 - (C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;
 - (D) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
 - (E) Such other information that the Regional Administrator considers necessary.

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(f) *Samples Undergoing Treatability Studies at Laboratories and Testing Facilities.* Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, Part 124, Parts 262-266, 268, and 270, or to the notification requirements of Section 3010 of RCRA provided that the conditions of paragraphs (f)(1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to paragraphs (f)(1) through (11) of this section. Where a group of MTUs are located at the same site, the limitations specified in (f)(1) through (11) of this section apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the Regional Administrator, or State Director (if located in an authorized State), in writing that it intends to conduct treatability studies under this paragraph.

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) The date the shipment was received;

(iii) The quantity of waste accepted;

(iv) The quantity of "as received" waste in storage each day;

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) The date the treatability study was concluded;

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the Regional Administrator, or State Director (if located in an authorized State), by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(i) The name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) The types (by process) of treatability studies conducted;

(iii) The names and addresses of persons for whom studies have been conducted (including their EPA identification numbers);

(iv) The total quantity of waste in storage each day;

(v) The quantity and types of waste subjected to treatability studies;

(vi) When each treatability study was conducted;

(vii) The final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous under § 261.3 and, if so, are subject to Parts 261 through 268, and Part 270 of this Chapter, unless the residues and unused samples are returned to the sample originator under the § 261.4(e) exemption.

(11) The facility notifies the Regional Administrator, or State Director (if located in an authorized State), by letter when the facility is no longer planning to conduct any treatability studies at the site.

[45 FR 33119, May 19, 1980, as amended at 45 FR 72028, Oct. 30, 1980; 45 FR 72037, Oct. 30, 1980; 45 FR 76620, Nov. 19, 1980; 45 FR 78531, Nov. 25, 1980; 45 FR 80287, Dec. 4, 1980; 46 FR 27476, May 20, 1981; 46 FR 47429, Sept. 25, 1981; 48 FR 14293, Apr. 1, 1983; 48 FR 30115, June 30, 1983; 49 FR 44980, Nov. 13, 1984; 50 FR 665, Jan. 4, 1985; 50 FR 14219, Apr. 11, 1985; 50 FR 28743, July 15, 1985; 51 FR 25471, July 14, 1986; 51 FR 40636, Nov. 7, 1986; 53 FR 27301, July 19, 1988; 53 FR 35420, Sept. 13, 1988; 54 FR 36641, Sept. 1, 1989; 55 FR 2353, Jan. 23, 1990; 55 FR 11862, Mar. 29, 1990; 55 FR 26987, June 29, 1990; 55 FR 40837, Oct. 5, 1990; 55 FR 50482, Dec. 6, 1990; 56 FR 3978, Feb. 1, 1991; 56 FR 5915, Feb. 13, 1991; 56 FR 7206, Feb. 21, 1991; 56 FR 13411, Apr. 2, 1991; 56 FR 27318, June 13, 1991; 56 FR 30195, July 1, 1991; 56 FR 41177, Aug. 19, 1991; 57 FR 21534, May 20, 1992; 57 FR 27888, June 22, 1992; 57 FR 29220, July 1, 1992; 57 FR 30658, July 10, 1992; 57 FR 37305, Aug. 18, 1992; 58 FR 26424, May 3, 1993; 59 FR 8365, Feb. 18, 1994; 59 FR 38545, July 28, 1994]

§ 261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

RCRA 45 (a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

RCRA 18, 90, 113 (b) Except for those wastes identified in paragraphs (e), (f), (g), and (j) of this section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 266, 268 and Parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA, provided the generator complies with the requirements of paragraphs (f), (g), and (j) of this section.

RCRA 44, 62, 76, 106, 209 (c) Hazardous waste that is not subject to regulation or that is subject only to § 262.11, § 262.12, § 262.40(c), and § 262. not included in the quantity determinations of this part and Parts 262 through 266, 268 and 270 and is not subject to any of the requirements of those parts. Hazardous waste that is subject to the requirements of § 261.6 (b) and (c) and Subparts C, D, and F of Part 266 is included in the quantity determination of this part and is subject to the requirements of Parts 262 through 266 and 270.

RCRA 62 (d) In determining the quantity of hazardous waste generated, a generator need not include:

- (1) Hazardous waste when it is removed from on-site storage; or
- (2) Hazardous waste produced by on-site treatment (including reclamation) of his hazardous waste, so long as the hazardous waste that is treated was counted once; or
- (3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under Parts 262 through 266, 268 and Parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA:

- (1) A total of one kilogram of acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).
- (2) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).

[Comment: "Full regulation" means those regulations applicable to generators of greater than 1,000 kg of non-acutely hazardous waste in a calendar month.]

(f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in paragraph (e)(1) or (2) of this section to be excluded from full regulation under this section, the generator must comply with the following requirements:

- (1) Section 262.11 of this chapter;
- (2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous w. in quantities greater than those set forth in paragraph (e)(1) or (e)(2) of this section, all of those accumulated wastes are

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § 261.5(c).

[45 FR 33119, May 19, 1980 as amended at 55 FR 18726, May 4, 1990; 57 FR 14, Jan. 2, 1992]

Subpart C—Characteristics of Hazardous Waste

§ 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subpart.

[Comment: Section 262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subpart]

(b) A hazardous waste which is identified by a characteristic in this Subpart is assigned every EPA Hazardous Waste Number that is applicable as set forth in this Subpart. This number must be used in complying with the notification requirements of section 3010 of the Act and all applicable recordkeeping and reporting requirements under Parts 262 through 265, 268, and 270 of this chapter.

(c) For purposes of this subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this chapter.

[Comment: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 51 FR 40636, Nov. 7, 1986; 55 FR 22684, June 1, 1990; 56 FR 3876, Jan. 31, 1991]

§ 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see § 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§ 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990]

§ 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers)

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Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

- (b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993]

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§ 261.23 Characteristic of reactivity.

- (a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

- (1) It is normally unstable and readily undergoes violent change without detonating.
- (2) It reacts violently with water.
- (3) It forms potentially explosive mixtures with water.
- (4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- (7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- (8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

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- (b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

[45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990]

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§ 261.24 Toxicity characteristic.

- (a) A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

- (b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

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CHAPTER 12

40 CFR PART 279: USED OIL MANAGEMENT STANDARDS

Although used oil destined for disposal or recycling is not listed as a hazardous waste, EPA has established significant requirements for managing it from generation to ultimate reuse or disposal. Part 279 delineates the standards and segregates them as a function of role in the used oil handling industry:

1. Subpart C applies to generators of used oil. Such generators cannot mix hazardous waste with used oil; used oil with more than 1,000 ppm total halogens is presumed to be a hazardous waste (and must be managed as such), unless the generator can prove otherwise. Requirements for used oil storage, onsite burning in space heaters, and offsite shipping are identified.
2. Subpart D provides requirements for used oil collection centers and aggregation points that accept and store small shipments (less than 55 gallons) of used oil from household "do-it-yourselfers." Such sites become the "generators" and must comply with the same requirements for used oil storage, onsite burning in space heaters, and offsite shipping as are specified for used oil generators in Subpart C.
3. Subpart E applies to transporters of used oil. This subpart gives requirements for notification, spill recovery, sampling, storage limitations, offsite shipping, and recordkeeping.
4. Subpart F provides requirements for used oil processors and re-refiners, including notification, sampling, preparedness and prevention, contingency plans, storage, offsite shipping, and recordkeeping.
5. Subpart G applies to off-specification used oil that is burned for energy recovery. This subpart is essentially the former Part 266, Subpart E, with minor modifications. Only used oil that exceeds specified limits for heavy metals, flash point, and total halogens is regulated. As with hazardous waste fuels, off-specification used oils can only be burned for energy recovery in boilers and industrial furnaces. Notification, sampling, storage, and recordkeeping requirements are included.
6. Subpart H provides standards for used oil fuel marketers. A marketer is any person who ships off-specification used oil to a used oil burner, or someone who first claims that used oil to be burned for energy recovery meets the used oil fuel specification. Used oil fuel marketers must observe certain shipping restrictions and comply with sampling, notification, and recordkeeping requirements.
7. Subpart I applies to the disposal of used oil that is nonrecyclable. Used oils that exhibit a hazardous characteristic and are not recyclable must be handled and disposed like any hazardous waste. On the other hand, used oils that do not exhibit a characteristic may be disposed in an industrial or municipal solid waste landfill. Additionally, used oil (whether or not it exhibits a characteristic) may not be used as a dust suppressant, unless this practice is specifically allowed by state law. Only used oils that do not exhibit a characteristic (other than ignitability) can be used in an approved state dust-suppression program.

Changes Made in 1994

Part 279 was modified by one final rule in 1994. These changes clarified the exemption from the Part 279 standards for used oil managed at crude oil exploration, production, and refining facilities [see § 279.10(g)]. Additionally, certain activities performed by used oil generators and transporters are now excluded from the used oil processor/re-refiner standards, and the definition of "used oil transfer facility" was expanded. Finally, used oil tracking requirements were revised slightly for intermediate rail carriers.

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

Subpart A—Definitions

- Sec.
- 279.1 Definitions.

Subpart B—Applicability

- 279.10 Applicability.
- 279.11 Used oil specifications.
- 279.12 Prohibitions.

Subpart C—Standards for Used Oil Generators

- 279.20 Applicability.
- 279.21 Hazardous waste mixing.
- 279.22 Used oil storage.
- 279.23 On-site burning in space heaters.
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Subpart D—Standards for Used Oil Collection Centers and Aggregation Points

- 279.30 Do-it-yourselfer used oil collection centers.
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- 279.40 Applicability.
- 279.41 Restrictions on transporters who are not also processors or re-refiners.
- 279.42 Notification.
- 279.43 Used oil transportation.
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Subpart F—Standards for Used Oil Processors and Re-Refiners

- 279.50 Applicability.
- 279.51 Notification.
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Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

- 279.60 Applicability.
- 279.61 Restriction on burning.
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- 279.63 Rebuttable presumption for used oil.
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Subpart H—Standards for Used Oil Fuel Marketers

- 279.70 Applicability.
- 279.71 Prohibitions.
- 279.72 On-specification used oil fuel.
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Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

- 279.80 Applicability.
- 279.81 Disposal.
- 279.82 Use as a dust suppressant.

Authority: Sections 1006, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930, 6934, and 6974); and Sections 101(37) and 114(c) of CERCLA (42 U.S.C. 9601(37) and 9614(c)).

Source: 57 FR 41612, Sept. 10, 1992, unless otherwise noted.

Subpart A—Definitions

§ 279.1 Definitions.

Terms that are defined in §§ 260.10, 261.1, and 280.12 of this chapter have the same meanings when used in this part.

Aboveground tank means a tank used to store or process used oil that is not an underground storage tank as defined in § 280.12 of this chapter.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer used oil collection center means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing tank means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or

- (2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank to be completed within a reasonable time.

Household "do-it-yourselfer" used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household "do-it-yourselfer" used oil generator means an individual who generates household "do-it-yourselfer" used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Petroleum refining facility means an establishment primarily engaged in producing gasoline, kerosine, distillate fuel oil, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Re-refining distillation bottoms means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials. (e.g., wood, concrete, steel, plastic) which provides structural support.

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Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Used oil aggregation point means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used oil burner means a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a).

Used oil collection center means any site or facility that is registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of § 279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

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Used oil fuel marketer means any person who conducts either of the following activities:

- (1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or
- (2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 of this part.

Used oil generator means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

Used oil processor/re-refiner means a facility that processes used oil.

Used oil transfer facility means any transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed pursuant to § 279.20(b)(2). Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this part.

Used oil transporter means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 59 FR 10559, Mar. 4, 1994]

Subpart B—Applicability

§ 279.10 Applicability.

This section identifies those materials which are subject to regulation as used oil under this part. This section also identifies some materials that are not subject to regulation as used oil under this part, and indicates whether these materials may be subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter.

(a) *Used oil.* EPA presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in § 279.11, the regulations of this part apply to used oil, and to materials identified in this section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter.

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(b) *Mixtures of used oil and hazardous waste*—(1) *Listed hazardous waste.* (i) Mixtures of used oil and hazardous waste that is listed in subpart D of part 261 of this chapter are subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter, rather than as used oil under this part.

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(ii) *Rebuttable presumption for used oil.* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, (202) 783-3238 (document number 955-001-00000-1).

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(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) *Characteristic hazardous waste.* Mixtures of used oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristic identified in subpart C of part 261 of this chapter and mixtures of used oil and hazardous waste that is listed in subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C are subject to:

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(i) Except as provided in paragraph (b)(2)(iii) of this section, regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter rather than as used oil under this part, if the resultant mixture exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter; or

(ii) Except as specified in § 279.10(b)(2)(iii), regulation as used oil under this part, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under subpart C of part 261 of this chapter.

(iii) Regulation as used oil under this part, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under § 261.21 of this chapter.

(3) *Conditionally exempt small quantity generator hazardous waste.* Mixtures of used oil and conditionally exempt small quantity generator hazardous waste regulated under § 261.5 of this chapter are subject to regulation as used oil under this part.

(c) *Materials containing or otherwise contaminated with used oil.* (1) Except as provided in paragraph (c)(2) of this section, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

(i) Are not used oil and thus not subject to this part, and

(ii) If applicable are subject to the hazardous waste regulations of parts 124, 260 through 266, 268, and 270 of this chapter.

(2) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under this part.

(3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this part.

(d) *Mixtures of used oil with products.* (1) Except as provided in paragraph (d)(2) of this section, mixtures of used oil and other fuel products are subject to regulation as used oil under this part.

(2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of subpart C of this part.

(e) *Materials derived from used oil.* (1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

(i) Not used oil and thus are not subject to this part, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter as provided in § 261.3(c)(2)(i) of this chapter.

(2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this part.

(3) Except as provided in paragraph (e)(4) of this section, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(i) Not used oil and thus are not subject to this Part, and

(ii) Are solid wastes and thus are subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter if the materials are listed or identified as hazardous wastes.

(4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this part.

(i) Not subject to this part at this time, and

(ii) Not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter at this time.

(f) *Wastewater.* Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with *de minimis* quantities of used oil are not subject to the requirements of this part. For purposes of this paragraph, "*de minimis*" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) *Used oil introduced into crude oil pipelines or a petroleum refining facility.* (1) Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this part. The used oil is subject to the requirements of this part prior to the mixing of used oil with crude oil or natural gas liquids.

(2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this part.

(3) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this part provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(4) Except as provided in paragraph (g)(5) of this section, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of this part only if the used oil meets the specification of § 279.11. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this part. This exemption does not extend to used oil which is intentionally introduced hydrocarbon recovery system (e.g., by pouring collected used oil into the waste water treatment system).

(6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this part.

1) *Used oil on vessels.* Used oil produced on vessels from normal shipboard operations is not subject to this part until it is transported ashore.

(i) *Used oil containing PCBs.* In addition to the requirements of 40 *CFR* part 279, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements found at 40 *CFR* 761.20(e).

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 59 FR 10559, Mar. 4, 1994]

§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with §§ 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

TABLE 1—USED OIL NOT EXCEEDING ANY SPECIFICATION LEVEL IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY¹

| Constituent/property | Allowable level |
|----------------------|---------------------------------|
| Arsenic | 5 ppm maximum. |
| Cadmium | 2 ppm maximum. |
| Chromium | 10 ppm maximum. |
| Lead | 100 ppm maximum. |
| Flash Point | 100°F minimum. |
| Total Halogens | 4,000 ppm maximum. ² |

¹The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see § 279.10(b)).

²Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

NOTE: Applicable standards for the burning of used oil containing PCBs are imposed by 40 *CFR* 761.20(e).

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.12 Prohibitions.

(a) *Surface impoundment prohibition.* Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under parts 264 or 265 of this chapter.

(b) *Use as a dust suppressant.* The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in § 279.82(c).

(c) *Burning in particular units.* Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23.

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 12 - DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 340, DIVISION 12
ENFORCEMENT PROCEDURE AND CIVIL PENALTIES

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OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 12 - DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 340, DIVISION 12

**ENFORCEMENT PROCEDURE AND
CIVIL PENALTIES**

Policy

340-12-026

- (1) The goal of enforcement is to:
 - (a) Obtain and maintain compliance with the Department's statutes, rules, permits and orders;
 - (b) Protect the public health and the environment;
 - (c) Deter future violators and violations; and
 - (d) Ensure an appropriate and consistent statewide enforcement program.
- (2) The Department shall endeavor by conference, conciliation and persuasion to solicit compliance.
- (3) The Department shall address all documented violations in order of seriousness at the most appropriate level of enforcement necessary to achieve the goals set forth in section (1) of this section.
- (4) Violators who do not comply with an initial enforcement action shall be subject to increasing levels of enforcement until compliance is achieved.

Stat. Auth.: ORS CH 459.995, Ch. 466, 467, 468.020, 468.996, Ch. 468a & 468B

Hist.: DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92

Scope of Applicability

340-12-028 Amendments to OAR 340-12-028 to 340-12-090 shall only apply to formal enforcement actions issued by the Department on or after the effective date of such amendments and not to any contested cases pending or formal enforcement actions issued prior to the effective date of such amendments. Any contested cases pending or formal enforcement actions issued prior to the effective date of any amendments shall be subject to OAR 340-12-028 to 340-12-090 as prior to amendment. The list of violations classified in these rules is intended to be used only for the purposes of setting penalties for violations of law and for other rules set forth in OAR Chapter 340.

Stat. Auth.: ORS Ch. 454, 459.995, Ch. 466, 467, 468.020 & 468.996

Hist.: DEQ 4-1989, f. 7 cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92; Renumbered from 340-12-080

Definitions

340-12-030 Unless otherwise required by context, as used in this Division:

- (1) "Class One Equivalent" or "Equivalent", which is used only for the purposes of determining the value of the "P" factor in the civil penalty formula, means two Class Two violations, one Class Two and two Class Three violations, or three Class Three violations.
- (2) "Commission" means the Environmental Quality Commission.
- (3) "Compliance" means meeting the requirements of the Commission's and Department's statutes, rules, permits or orders.
- (4) "Director" means the Director of the Department or the Director's authorized deputies or officers.
- (5) "Department" means the Department of Environmental Quality.
- (6) "Documented Violation" means any violation which the Department or other government agency records after observation, investigation or data collection.
- (7) "Flagrant" means any documented violation where the Respondent had actual knowledge of the law and had consciously set out to commit the violation.
- (8) "Formal Enforcement Action" means an action signed by the Director or a Regional Administrator or authorized representatives or deputies which is issued to a Respondent for a documented violation. Formal enforcement actions may require the Respondent to take action within a specified time frame, and/or state the consequences for the violation or continued noncompliance.
- (9) "Intentional", means conduct by a person with a conscious objective to cause the result of the conduct.
- (10) "Magnitude of the Violation" means the extent and effects of a violator's deviation from the Commission's and Department's statutes, rules, standards, permits or orders. In determining magnitude the Department shall consider all available applicable information, including such factors as: concentration, volume, percentage, duration, toxicity, and the extent of the effects of the violation. Deviations shall be categorized as major, moderate or minor as set forth in OAR 340-12-045(1)(a)(ii).
- (11) "Negligence" or "Negligent" means failure to take reasonable care to avoid a foreseeable risk of committing an act or omission constituting a violation.
- (12) "Order" means:
 - (a) Any action satisfying the definition given in ORS Chapter 183; or
 - (b) Any other action so designated in ORS

OREGON ADMINISTRATIVE RULES
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- any noncompliance therewith. The stipulated penalties shall not apply to circumstances beyond the reasonable control of the permittee. The stipulated penalties shall be set at amounts consistent with those established under OAR 340-12-048.
- (d) The certification allowed in subsection (1)(a) of this rule shall be signed by a Responsible Official based on information and belief after making reasonable inquiry. For purposes of this rule "Responsible Official" of the permitted facility means one of the following:
- (A) For a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or the manager of one of more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (B) For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- (C) For a municipality, State, Federal, or other public agency, either a principal executive officer or appropriate elected official.
- (e) For the purposes of this section, when a regional authority issues an NPV, different acceptability criteria may apply for subsections (a) and (b) of this section.
- (2) No advance notice prior to assessment of a civil penalty shall be required under section (1) of this rule and the Department may issue a Notice of Civil Penalty Assessment if:
- (a) The violation is intentional;
- (b) The water or air violation would not normally occur for five consecutive days; or
- (c) The permittee has received a Notice of Permit Violation, or other formal enforcement action with respect to any violation of the permit within 36 months immediately preceding the documented violation.
- (d) The permittee is subject to the federal operating permit program under ORS 468A.300 to 468A.320 (Title V of the Clean Air Act of 1990) and violates any rule or standard adopted or permit or order issued under ORS chapter 468A and applicable to the permittee.
- (e) The permittee is a solid waste permit holder subject to federal solid waste management requirements contained in 40 Code of Federal Regulations, Part 258 as of the effective date of these rules ("Subtitle D"), and violates any rule or standard adopted or permit or order issued under ORS chapter 459 and applicable to the permittee.
- (f) The permittee has an air contaminant discharge permit and violates any State Implementation Plan requirement contained in the permit.
- (g) The requirement to provide such notice would disqualify a state program from federal approval or delegation.
- (h) For purposes of this section, "permit" includes permit renewals and modifications and no such renewal or modification shall result in the requirement that the Department provide the permittee with an additional advance warning if the permittee has received a Notice of Permit Violation, or other formal enforcement action with respect to the permit within 36 months.

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996
Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 25-1979, f. & ef. 7-5-79;
DEQ 22-1984, f. & ef. 11-8-84; DEQ 16-1985, f. & ef. 12-3-85;
DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90, DEQ 21-1992, f. & cert. ef. 8-11-92; DEQ __-1994 f. & cert. ef. 3-15-94

Enforcement Actions

340-12-041

- (1) Notice of Noncompliance (NON):
- (a) Informs a person of a violation, and the consequences of the violation or continued noncompliance. The notice may state the actions required to resolve the violation and may specify a time by which compliance is to be achieved and that the need for formal enforcement action will be evaluated;
- (b) Shall be issued under the direction of a manager or authorized representative;
- (c) Shall be issued for all classes of documented violations.
- (2) Notice of Permit Violation (NPV):
- (a) Is issued pursuant to OAR 340-12-040;

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orders;

- (j) Any violation of ORS Chapter 459 or any violation related to solid waste statutes, rules, permits, or orders;
- (k) Any violation of ORS Chapter 459A, except as provided in section (4) of this rule and except any violation by a city, county or metropolitan service district of failing to provide the opportunity to recycle as required by law; and

- (2) In addition to any other penalty provided by law, any person causing an oil spill through an intentional or negligent act shall incur a civil penalty of not less than one hundred dollars (\$100) or more than twenty thousand dollars (\$20,000). The amount of the penalty shall be determined by doubling the values contained in the matrix in section (1) of this rule in conjunction with the formula contained in OAR 340-12-045.

- (3) \$2,500 Matrix

<----- Magnitude of Violation

| Class of Violation | Major | Moderate | Minor |
|--------------------|--------|----------|-------|
| Class I | \$2500 | \$1000 | \$500 |
| Class II | \$750 | \$500 | \$200 |
| Class III | \$250 | \$100 | \$50 |

- (a) No civil penalty issued by the Director pursuant to this matrix shall be less than \$50. The total civil penalty may exceed \$2,500 for each day of each violation, but shall not exceed \$10,000 for each day of each violation.
- (b) This matrix shall be applied to any violation related to on-site sewage statutes, rules, permits, or orders, other than violations by a person performing sewage disposal services; and for violations of the Department's Division 23 open burning rules, excluding all industrial open burning violations, and violations of OAR 340-23-042(2) where the volume of the prohibited materials burned is greater than or equal to twenty-five cubic yards. In cases of the open burning of tires, this matrix shall apply only if the number of tires burned is less than fifteen. The matrix set forth in section (1) of this rule shall be

applied to the open burning violations excluded from this section.

- (4) \$1,000 Matrix

<----- Magnitude of Violation

| Class of Violation | Major | Moderate | Minor |
|--------------------|---------|----------|-------|
| Class I | \$1,000 | \$750 | \$500 |
| Class II | \$ 750 | \$500 | \$250 |
| Class III | \$ 250 | \$150 | \$ 50 |

- (a) No civil penalty issued by the Director pursuant to this matrix shall be less than \$50 or more than \$1,000 for each day of each violation.
- (b) This matrix shall apply to any violation of laws, rules or orders relating to rigid plastic containers; except for violation of the labeling requirements under OAR 459A.675 through 459A.685 which shall be subject to the matrix set forth in section (1) of this rule.

- (5) \$500 Matrix

<----- Magnitude of Violation

| Class of Violation | Major | Moderate | Minor |
|--------------------|-------|----------|-------|
| Class I | \$400 | \$300 | \$200 |
| Class II | \$300 | \$200 | \$100 |
| Class III | \$200 | \$100 | \$50 |

- (a) No civil penalty issued by the Director pursuant to this matrix shall be less than fifty dollars (\$50) or more than five hundred dollars (\$500) for each day of each violation. This matrix shall apply to the following types of violations:
- (b) Any violation of laws, rules, orders or permits relating to woodstoves, except violations relating to the sale of new woodstoves;
- (c) Any violation by a city, county or metropolitan service district of failing to provide the opportunity to recycle as required

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- (ii) 1 if the prior significant action is one Class Two or two Class Threes;
 - (iii) 2 if the prior significant action(s) is one Class One or equivalent;
 - (iv) 3 if the prior significant actions are two Class One or equivalents;
 - (v) 4 if the prior significant actions are three Class Ones or equivalents;
 - (vi) 5 if the prior significant actions are four Class Ones or equivalents;
 - (vii) 6 if the prior significant actions are five Class Ones or equivalents;
 - (viii) 7 if the prior significant actions are six Class Ones or equivalents;
 - (ix) 8 if the prior significant actions are seven Class Ones or equivalents;
 - (x) 9 if the prior violations significant actions are eight Class Ones or equivalents;
 - (xi) 10 if the prior significant actions are nine Class Ones or equivalents, or if any of the prior significant actions were issued for any violation of ORS 468.996.
 - (xii) In determining the appropriate value for prior significant actions as listed above, the Department shall reduce the appropriate factor by:
 - (I) A value of two (2) if the date of issuance of all the prior significant actions are greater than three years old but less than five years old;
 - (II) A value of four (4) if the date of issuance of all the prior significant actions are greater than five years old;
 - (III) In making the above reductions, no finding shall be less than 0.
 - (xiii) Any prior significant action which is greater than ten years old shall not be included in above determination.
 - (xiv) A permittee, who would have received a Notice of Permit Violation, but instead received a civil penalty or Department Order because of the application of OAR 340-12-040 (2)(d),(e),(f), or (g) shall not have the violation(s) cited in the former action counted as a prior significant action, if the permittee fully complied with the provisions of any compliance order contained in the former action.
- (B) "H" is past history of the Respondent in taking all feasible steps or procedures necessary or appropriate to correct any violation cited in any prior significant actions. In no case shall the combination of the "P" factor and the "H" factor be a value less than zero. In such cases where the sum of the "P" and "H" values is a negative numeral the finding and determination for the combination of these two factors shall be zero. The values for "H" and the finding which supports each are as follows:
- (i) -2 if Respondent took all feasible steps to correct each violation contained in any prior significant action;
 - (ii) 0 if there is no prior history or if there is insufficient information on which to base a finding;
- (C) "O" is whether the violation was repeated or continuous. The values for "O" and the finding which supports each are as follows:
- (i) 0 if the violation existed for one day or less and did not recur on the same day;
 - (ii) 2 if the violation existed for more than one day or if the violation recurred on the same day.
- (D) "R" is whether the violation resulted from an unavoidable accident, or a negligent, intentional or flagrant act of the Respondent. The values for "R" and the finding which supports each are as follows:

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not to impose the gravity and magnitude-based portion of the penalty for more than one day.

- (2) In addition to the factors listed in section (1) of this rule, the Director may consider any other relevant rule of the Commission and shall state the effect the consideration had on the penalty. On review, the Commission shall consider the factors contained in section (1) of this rule and any other relevant rule of the Commission.
- (3) The Department or Commission may reduce any penalty based on the Respondent's inability to pay the full penalty amount. If the Respondent seeks to reduce the penalty, the Respondent has the responsibility of providing to the Department or Commission documentary evidence concerning Respondent's inability to pay the full penalty amount.
 - (a) When the Respondent is currently unable to pay the full amount, the first option should be to place the Respondent on a payment schedule with interest on the unpaid balance for any delayed payments. The Department or Commission may reduce the penalty only after determining that the Respondent is unable to meet a long-term payment schedule.
 - (b) In determining the Respondent's ability to pay a civil penalty, the Department may use the U.S. Environmental Protection Agency's ABEL computer model to determine a Respondent's ability to pay the full civil penalty amount. With respect to significant or substantial change in the model, the Department shall use the version of the model that the Department finds will most accurately calculate the Respondent's ability to pay a civil penalty. Upon request of the Respondent, the Department will provide Respondent the name of the version of the model used and respond to any reasonable request for information about the content or operation of the model.
 - (c) In appropriate circumstances, the Department or Commission may impose a penalty that may result in a Respondent going out of business. Such circumstances may include situations where the violation is intentional or flagrant or situations where the Respondent's financial condition poses a serious concern regarding its ability or incentive to remain in compliance.

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996
Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 22-1984, f. & ef. 11-8-84;
DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-

14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92; DEQ __-1994, f. & cert. ef. 3-15-94

Written Notice of Assessment of Civil Penalty; When Penalty Payable

340-12-046

- (1) A civil penalty shall be due and payable ten (10) days after the order assessing the civil penalty becomes final and the civil penalty is thereby imposed by operation of law or on appeal. A person against whom a civil penalty is assessed shall be served with a notice in the form and manner provided in ORS 183.415 and OAR Chapter 340, Division 11.
- (2) The written notice of assessment of civil penalty shall comply with ORS 468.135(1) and ORS 183.090, relating to notice and contested case hearing applications, and shall state the amount of the penalty or penalties assessed. The rules prescribing procedure in contested case proceedings contained in OAR Chapter 340, Division 11 shall apply thereafter.

Stat. Auth.: ORS 459.995, 468.020 & 468.996
Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 22-1988, f. & cert. ef. 9-14-88; Renumbered from 34-12-070; DEQ 21-1992, f. & cert. ef. 8-11-92

Compromise or Settlement of Civil Penalty by Director

340-12-047

- (1) Any time after service of the written notice of assessment of civil penalty, the Director may compromise or settle any unpaid civil penalty at any amount that the Director deems appropriate. Any compromise or settlement executed by the Director shall be final.
- (2) In determining whether a penalty should be compromised or settled, the Director may take into account the following:
 - (a) New information obtained through further investigation or provided by Respondent which relates to the penalty determination factors contained in OAR 340-12-045;
 - (b) The effect of compromise or settlement on deterrence;
 - (c) Whether Respondent has or is willing to employ extraordinary means to correct the violation or maintain compliance;
 - (d) Whether Respondent has had any previous penalties which have been compromised or settled;

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- (B) \$75,000 if the violation was caused intentionally;
- (C) \$100,000 if the violation was caused flagrantly;
- (b) Then determine the civil penalty through application of the formula: $BP + (.1 \times BP)(P + H + O + C) + EB$, in accord with OAR 340-12-045(1)(c).

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996

Hist.: DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92

Air Quality Classification of Violations

340-12-050 Violations pertaining to air quality shall be classified as follows:

- (1) Class One:
 - (a) Violation of a Commission or Department Order, or variance;
 - (b) Constructing or operating a source without the appropriate permit;
 - (c) Modifying a source with an Air Permit without first notifying and receiving approval from the Department;
 - (d) Violation of a compliance schedule in a permit;
 - (e) Exceeding an allowable emission level of a hazardous air pollutant.
 - (f) Exceeding an emission or opacity permit limitation for a criteria pollutant, by a factor of greater than or equal to two times the limitation, within 10 kilometers of either a Non-Attainment Area or a Class I Area for that criteria pollutant;
 - (g) Exceeding the annual emission limitations of a permit, rule or order;
 - (h) Failure to perform testing, or monitoring, required by a permit, rule or order;
 - (i) Systematic failure to keep records required by a permit, rule or order;
 - (j) Failure to submit semi-annual Compliance Certifications;
 - (k) Failure to file a timely application for a Federal Operating Permit pursuant to OAR 340-28-2120;
 - (l) Exceedances of operating limitations that limit the potential to emit of a synthetic minor source and that result in emissions above the Federal Operating Permit permitting thresholds pursuant to OAR 340-28-110(57);
 - (m) Causing emissions that are a hazard to public safety;
 - (n) Failure to comply with Emergency Action Plans or allowing excessive emissions during emergency episodes;
- (o) Violation of a work practice requirement for asbestos abatement projects which causes a potential for public exposure to asbestos or release of asbestos into the environment;
- (p) Storage or accumulation of friable asbestos material or asbestos-containing waste material from an asbestos abatement project which causes a potential for public exposure to asbestos or release of asbestos into the environment;
- (q) Visible emissions of asbestos during an asbestos abatement project or during collection, processing, packaging, transportation, or disposal of asbestos-containing waste material;
- (r) Conduct of an asbestos abatement project by a person not licensed as an asbestos abatement contractor;
- (s) Violation of a disposal requirement for asbestos-containing waste material which causes a potential for public exposure to asbestos or release of asbestos into the environment;
- (t) Advertising to sell, offering to sell or selling a non-certified wood stove;
- (u) Illegal open burning in violation of OAR 34-23-042(2);
- (v) Causing or allowing open field burning without first obtaining a valid open field burning permit;
- (w) Causing or allowing open field burning or stack burning where prohibited by OAR 340-26-010(7) or OAR 340-26-055(4);
- (x) Causing or allowing any propane flaming which results in visibility impairment on any Interstate Highway or Roadway specified in OAR 837-110-080(1) and (2);
- (y) Failing to immediately and actively extinguish all flames and smoke sources when any propane flaming results in visibility impairment on any Interstate Highway or Roadway specified in OAR 837-110-080(1) and (2);
- (z) Causing or allowing propane flaming of grass seed or cereal grain crops, stubble, or residue without first obtaining a valid propane flaming burning permit;
- (aa) Stack or pile burning grass seed or cereal grain crop residue without first obtaining a valid stack or pile burning permit;
- (bb) Open field burning, propane flaming, stack pile burning when State Fire Mars.

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93; DEQ __-1994, f. & cert. ef. 3-15-94

Noise Control Classification of Violations

340-12-052 Violations pertaining to noise control shall be classified as follows:

- (1) Class One:
 - (a) Violation of a Commission or Department order or variance;
 - (b) Violations that exceed noise standards by ten (10) decibels or more;
 - (c) Exceeding the ambient degradation rule by five (5) decibels or more; or
 - (d) Failure to submit a compliance schedule required by OAR 340-35-035(2);
 - (e) Operating a motor sports vehicle without a properly installed or well-maintained muffler or exceeding the noise standards set forth in OAR 340-35-040(2);
 - (f) Operating a new permanent motor sports facility without submitting and receiving approval of projected noise impact boundaries;
 - (g) Failure to provide access to premises or records when required by law, rule, or order;
 - (h) Violation of motor racing curfews set forth in OAR 340-35-040(6);
 - (i) Any violation related to noise control which causes a major harm or poses a major risk of harm to public health or the environment.
- (2) Class Two:
 - (a) Violations that exceed noise standards by three (3) decibels or more;
 - (b) Advertising or offering to sell or selling an uncertified racing vehicle without displaying the required notice or obtaining a notarized affidavit of sale;
 - (c) Any violation related to noise control which is not otherwise classified in these rules.
- (3) Violations that exceed noise standards by one (1) or two (2) decibels are Class III violations;

Stat. Auth.: ORS 459.995, Ch.466, 467, 468.020 & 468.996
Hist.: DEQ 101, f. & ef. 10-1-75; DEQ 22-1984, f. & ef. 11-8-84;
DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92

Water Quality Classification of Violations

340-12-055 Violations pertaining to water quality shall be classified as follows:

- (1) Class One:
 - (a) Violation of a Commission or Department Order;
 - (b) Any discharge of waste that enters waters of

- (c) the state, either without a waste discharge permit or from a discharge point not authorized by a waste discharge permit;
- (c) Failure to comply with statute, rule, or permit requirements regarding notification of a spill or upset condition which results in a non-permitted discharge to public waters;
- (d) Violation of a permit compliance schedule;
- (e) Any violation of any pretreatment standard or requirement by a user of a municipal treatment works which either impairs or damages the treatment works, or causes a major harm or poses a major risk of harm to public health or the environment;
- (f) Failure to provide access to premises or records when required by law, rule, permit or order;
- (g) Failure of any ship carrying oil to have financial assurance as required in ORS 468B.300 to 468B.335 or rules adopted thereunder;
- (h) Any violation related to water quality which causes a major harm or poses a major risk of harm to public health or the environment.

- (2) Class Two:
 - (a) Operation of a disposal system without first obtaining a Water Pollution Control Facility Permit;
 - (b) Failure to submit a report or plan as required by rule permit, or license;
 - (c) Any violation of OAR Chapter 340, Division 49 regulations pertaining to certification of wastewater system operator personnel;
 - (d) Placing wastes such that the wastes are likely to enter public waters by any means;
 - (e) Failure by any ship carrying oil to keep documentation of financial assurance on board or on file with the Department as required by ORS 468B.300 to 468B.335 or rules adopted thereunder;
 - (f) Any violation related to water quality which is not otherwise classified in these rules.
- (3) Class Three:
 - (a) Failure to submit a discharge monitoring report on time;
 - (b) Failure to submit a complete discharge monitoring report;
 - (c) Exceeding a waste discharge permit biochemical oxygen demand (BOD), carbonaceous biochemical oxygen demand (CBOD), or total suspended solids (TSS) limitation by a concentration of 20 per cent or less, or exceeding a mass loading limitation by 10 per cent or less;

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- permitted solid waste unit or facility that has been expanded in area or capacity without first submitting plans to the Department and obtaining Department approval;
- (d) Violation of the freeboard limit which results in the actual overflow of a sewage sludge or leachate lagoon;
 - (e) Violation of the landfill methane gas concentration standards;
 - (f) Violation of any federal or state drinking water standard in an aquifer beyond the solid waste boundary of the landfill, or an alternative boundary specified by the Department;
 - (g) Violation of a permit-specific groundwater concentration limit, as defined in OAR 340-40-030(3) at the permit-specific groundwater concentration compliance point, as defined in OAR 340-40-030(2)(e);
 - (h) Failure to perform the groundwater monitoring action requirements specified in OAR 340-40-030 (5), when a significant increase (for pH, increase or decrease) in the value of a groundwater monitoring parameter is detected.
 - (i) Impairment of the beneficial uses(s) of an aquifer beyond the solid waste boundary or an alternative boundary specified by the Department;
 - (j) Deviation from the approved facility plans which results in an actual safety hazard, public health hazard or damage to the environment;
 - (k) Failure to properly construct and maintain groundwater, surface water, gas or leachate collection, treatment, disposal and monitoring facilities in accordance with the facility permit, the facility environmental monitoring plan, or Department rules;
 - (l) Failure to collect, analyze and report groundwater, surface water or leachate quality data in accordance with the facility permit, the facility environmental monitoring plan, or Department rules;
 - (m) Violation of a compliance schedule contained in a solid waste disposal or closure permit;
 - (n) Failure to provide access to premises or records when required by law, rule, permit or order;
 - (o) Knowingly disposing, or accepting for disposal, used oil, in single quantities exceeding 50 gallons, or lead acid batteries;
 - (p) Accepting, handling, treating or disposing of clean-up materials contaminated by hazardous substances by a landfill in violation of the facility permit and plans as approved by Department or the provisions of OAR 340-060.
- (q) Accepting for disposal infectious waste not treated in accordance with laws and Department rules;
 - (r) Accepting for treatment, storage or disposal wastes defined as hazardous under ORS 466.005, et seq, or wastes from another state which are hazardous under the laws of that state without specific approval from the Department;
 - (s) Mixing for disposal or disposing of principal recyclable material that has been properly prepared and source separated for recycling;
 - (t) Any violation related to the management, recovery and disposal of solid waste which causes major harm or poses a major risk of harm to public health or the environment.
- (2) Class Two:
- (a) Violation of a condition or term of a Letter of Authorization;
 - (b) Knowingly accepting for disposal or disposing of a material banned from land disposal under ORS 459.247, except those materials specified as Class I violations.
 - (c) Failure of a permitted landfill, solid waste incinerator or a municipal solid waste compaction facility operator or a metropolitan service district to report amount of solid waste disposed in accordance with the laws and rules of the Department;
 - (d) Failure to report weight and type of material recovered or processed from the solid waste stream in accordance with the laws and rules of the Department;
 - (e) Failure of a disposal site to obtain certification for recycling programs in accordance with the laws and rules of the Department prior to accepting solid waste for disposal;
 - (f) Acceptance of solid waste by a permitted disposal site from a person that does not have an approved solid waste reduction program in accordance with the laws and rules of the Department;
 - (g) Failure to comply with any solid waste permit requirement pertaining to permanent household hazardous waste collection facility operations;
 - (h) Failure to comply with landfill cover requirements, including but not limited to daily, intermediate, and final covers, and limitation of working face size;
 - (i) Failure to comply with any plan approved

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- (1) Class One:
- (a) Violation of a Commission or Department Order;
 - (b) Failure to report a release from an underground storage tank or a heating oil tank as required by statute, rule or permit;
 - (c) Failure to initiate and complete the investigation or cleanup of a release from an underground storage tank or a heating oil tank;
 - (d) Failure to prevent a release from an underground storage tank;
 - (e) Failure to submit required reports from the investigation or cleanup of a release from an underground storage tank or heating oil tank;
 - (f) Failure to provide access to premises or records when required by law, rule, permit or order;
 - (g) Placement of a regulated material into an unpermitted underground storage tank;
 - (h) Installation of an underground storage tank in violation of the standards or procedures adopted by the Department;
 - (i) Failure to initiate and complete free product removal in accordance with OAR 340-122-235;
 - (j) Failure to initiate and complete the investigation or cleanup of a release from a heating oil tank;
 - (k) Providing installation, retrofitting, decommissioning, or testing services on an underground storage tank or providing cleanup of petroleum contaminated soil at an underground storage tank without first registering or obtaining an underground storage tank service providers license;
 - (l) Supervising the installation, retrofitting, decommissioning, or testing of an underground storage tank or supervising cleanup of petroleum contaminated soil at an underground storage tank without first obtaining an underground storage tank supervisors license;
 - (m) Any other violation related to underground storage tanks or heating oil tanks or cleanup of petroleum contaminated soil at heating oil tanks which poses a major risk of harm to public health and the environment.
- (2) Class Two:
- (a) Failure to conduct required underground storage tank monitoring and testing activities;
 - (b) Failure to conform to operational standards for underground storage tanks and leak detection systems;
- (c) Failure to obtain a permit prior to the installation or operation of an underground storage tank;
- (d) Failure to properly decommission an underground storage tank;
- (e) Providing installation, retrofitting, decommissioning or testing services on a regulated underground storage tank or providing cleanup of petroleum contaminated soil at a regulated underground storage tank that does not have a permit;
- (f) Failure by a seller or distributor to obtain the tank permit number before depositing product into the underground storage tank or failure to maintain a record of the permit numbers;
- (g) Allowing the installation, retrofitting, decommissioning or testing of an underground storage tank or cleanup of petroleum contaminated soil at an underground storage tank by any person not licensed by the department;
- (h) Allowing cleanup of petroleum contaminated soil at a heating oil tank by any person not licensed by the Department;
- (i) Providing petroleum contaminated soil cleanup services at a heating oil tank without first registering or obtaining a heating oil tank soil matrix cleanup service provider license;
- (j) Providing supervision of petroleum contaminated soil at a heating oil tank without first registering or obtaining a heating oil tank soil matrix cleanup supervisor license;
- (k) Supervising petroleum contaminated soil cleanup services at a heating oil tank without first registering or obtaining a heating oil tank soil matrix cleanup supervisor license;
- (l) Failure to submit a corrective action plan (CAP) in accordance with the schedule or format established by the Department pursuant to OAR 340-122-250;
- (m) Failure by the tank owner to provide the permit number persons depositing product into the underground storage tank;
- (n) Failure to report a suspected release from an underground storage tank;
- (o) Any other violation related to underground storage tanks or heating oil tanks or cleanup of petroleum contaminated soil at a heating oil tank that is not otherwise classified in these rules.
- (3) Class Three:
- (a) Failure to submit an application for a new permit when an underground storage tank is acquired by a new owner;

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- requirements and OAR 340-102-012, annual registration information;
- (cc) Construct or operate a new treatment, storage or disposal facility without first obtaining a permit;
 - (dd) Installation of inadequate groundwater monitoring wells such that detection of hazardous waste or hazardous constituents that migrate from the waste management area cannot be immediately be detected;
 - (ee) Failure to install any groundwater monitoring wells;
 - (ff) Failure to develop and follow a groundwater sampling and analysis plan using proper techniques and procedures;
 - (gg) Failure to provide access to premises or records when required by law, rule, permit or order;
 - (hh) Any violation related to the generation, management and disposal of hazardous waste which causes major harm or poses a major risk of harm to public health or the environment.
- (2) Any violation pertaining to the generation, management and disposal of hazardous waste which is not otherwise classified in these rules is a Class Two violation.

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996
Hist.: DEQ 1-1982, f. & ef. 1-28-82; DEQ 22-1984, f. & ef. 11-8-84; DEQ 9-1986, f. & ef. 5-1-86; f. & ef. 5-1-86; DEQ 17-1986, f. & ef. 9-18-86; DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. 7 cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92

Oil and Hazardous Material Spill and Release Classification of Violations

340-12-069 Violations pertaining to spills or releases of oil or hazardous materials shall be classified as follows:

- (1) Class One:
 - (a) Violation of a Commission or Department Order;
 - (b) Failure to provide access to premises or records when required by law, rule, permit or order;
 - (c) Failure by any person having ownership or control over oil or hazardous materials to immediately cleanup spills or releases or threatened spills or releases;
 - (d) Failure by any person having ownership or control over oil or hazardous materials to immediately report all spills or releases or threatened spills or releases in amounts equal to or greater than the reportable quantity;

- (e) Any violation related to the spill or release of oil or hazardous materials which cause major harm or poses a major risk of harm to public health or the environment;
 - (f) Any spill or release of oil or hazardous materials which enters waters of the state.
- (2) Any violation related to the spill or release of oil or hazardous materials which is not otherwise classified in these rules is a Class Two violation.

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996
Hist.: DEQ 18-1986, f. & ef. 9-18-86; DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92; DEQ __-1994, f. & cert. ef. 3-15-94

PCB Classification of Violations

340-12-071 Violations pertaining to the management and disposal of polychlorinated biphenyls (PCB) shall be classified as follows:

- (1) Class One:
 - (a) Violation of a Commission or Department Order;
 - (b) Treating or disposing of PCBs anywhere other than at a permitted PCB disposal facility;
 - (c) Establishing, constructing or operating a PCB disposal facility without first obtaining permit;
 - (d) Failure to provide access to premises or records when required to by law, rule, permit or order;
 - (e) Any violation related to the management and disposal of PCBs which causes a major harm or poses a major risk of harm to public health or the environment.
- (2) Class Two:
 - (a) Violating a condition of a PCB disposal facility permit;
 - (b) Any violation related to the management and disposal of PCBs which is not otherwise classified in these rules.

Stat. Auth.: ORS 459.995, Ch. 466, 467, 468.020 & 468.996
Hist.: DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92

Used Oil Management Classification of Violations

340-12-072 Violations pertaining to the management of used oil shall be classified as follows:

- (1) Class One:
 - (a) Using untested used oil as a dust suppressant or pesticide, or otherwise spreading untested used oil directly in the environment, if the quantity of oil spread exceeds 50 gallons event;

**OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 12 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

| Pollutant | Amount |
|--|-----------|
| Carbon Monoxide | 100 tons |
| Nitrogen Oxide | 40 tons |
| Particulate Matter | 25 tons* |
| (A) TSP | 25 tons |
| (B) PM 10 | 15 tons |
| Sulfur Dioxide | 40 tons |
| Volatile Organic Compounds | 40 tons* |
| Lead | 1200 tons |
| Mercury | 200 tons |
| Beryllium | .8 tons |
| Asbestos | 14 tons |
| Vinyl Chloride | 1 ton |
| Fluorides | 3 tons |
| Sulfuric Acid Mist | 7 tons |
| Hydrogen Sulfide | 10 tons |
| Total Reduced Sulfur (including hydrogen sulfide) | 10 tons |
| Reduced Sulfur Compounds (including hydrogen sulfide) | 10 tons |

NOTE: For the nonattainment portions of the Medford-Ashland Air Quality Maintenance Area, and the Klamath Falls Urban Growth Area, the numbers to be used for Particulate Matter (both TSP and PM 10) shall be 5 tons, and for Volatile Organic Compounds shall be 20 tons.

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 12 - DEPARTMENT OF ENVIRONMENTAL QUALITY

- | | |
|--|---|
| <p>(C) Greater than 2 pH units above or below any applicable pH range; or</p> <p>(D) Greater than 10 percentage points below any applicable removal rate.</p> <p>(b) Moderate:</p> <p>(A) From 1.3 up to and including 1.6 times any applicable maximum flow rate, concentration limitation, or any applicable mass limitation; or</p> <p>(B) From 25 up to and including 50 percent below any applicable minimum concentration limitation; or</p> <p>(C) From 1 up to and including 2 pH units above or below any applicable pH range; or</p> <p>(D) From 5 up to and including 10 percentage points below any applicable removal rate.</p> <p>(c) Minor:</p> <p>(A) Less than 1.3 times any applicable maximum flow rate, concentration limitation or any applicable mass limitation; or</p> <p>(B) Less than 25 percent below any applicable minimum concentration limitation; or</p> <p>(C) Less than 1 pH unit above or below any applicable pH range; or</p> <p>(D) Less than 5 percentage points below any applicable removal rate.</p> <p>(3) Magnitudes for select violations pertaining to Hazardous Waste may be determined as follows:</p> <p>(a) Failure to make a hazardous waste determination:</p> <p>(A) Major - Failure to make the determination on five or more waste streams;</p> <p>(B) Moderate - Failure to make the determination on three or four waste streams;</p> <p>(C) Minor - Failure to make the determination on one or two waste streams.</p> <p>(D) The magnitude of the violation may be increased by one level, if more than 1000 gallons of hazardous waste is involved in the violation.</p> <p>(E) The magnitude of the violation may be decreased by one level, if less than 250 gallons of hazardous waste is involved in the violation.</p> <p>(b) Operating a hazardous waste storage facility without a permit by failing to meet the 40</p> | <p>CFR 262.34 and OAR Chapter 340, Division 102 generator requirements:</p> <p>(A) Major - Failure to comply with one or more requirements listed in (D) below, or any mismanagement of hazardous waste when more than 2000 gallons of hazardous waste are involved in the violation;</p> <p>(B) Moderate - Failure to comply with 3 or 4 requirements listed in (D) below, or any mismanagement of hazardous waste when from 500 up to and including 2000 gallons of hazardous waste are involved in the violation;</p> <p>(C) Minor - Failure to comply with 2 or fewer of the requirements listed in (D) below, or any mismanagement of hazardous waste when less than 500 gallons of hazardous waste are involved in the violation.</p> <p>(D) Failure to comply with:</p> <p>(i) 40 CFR 262.34(a)(2) (accumulation date).</p> <p>(ii) 40 CFR 262.34(a)(3) (marked as hazardous waste).</p> <p>(iii) 40 CFR 265.171 (container condition).</p> <p>(iv) 40 CFR 265.173 (container management).</p> <p>(v) 40 CFR 265.191 (tank system integrity assessment).</p> <p>(vi) 40 CFR 265.196 (tank leak response).</p> <p>(vii) Exceeding the applicable storage time limits.</p> <p>(viii) Non-compliance with three or more 40 CFR 262.34 standards not listed above.</p> <p>(c) Hazardous Waste disposal violations:</p> <p>(A) Major - Disposal of more than 150 gallons of hazardous waste, or the disposal of more than 3 gallons of acutely hazardous waste, or the disposal of any amount of hazardous waste or acutely hazardous waste that has a substantial impact on the local environment into which it was placed;</p> <p>(B) Moderate - Disposal of 50 to 150 gallons of hazardous waste, or the disposal of 1 to 3 gallons of acutely hazardous waste;</p> <p>(C) Minor - Disposal of less than</p> |
|--|---|

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

INTERNAL MANAGEMENT DIRECTIVE - CIVIL PENALTY MITIGATION FOR SUPPLEMENTAL ENVIRONMENTAL PROJECTS

- 1) Requests to mitigate civil penalties in exchange for environmental enhancement projects, also known as Supplemental Environmental Projects (SEPs), will be considered under the Department's authority set out in Oregon Administrative Rule (OAR) 340-12-047, authorized pursuant to Oregon Revised Statute 468.130(3).

OAR 340-12-047, "Compromise or Settlement of Civil Penalty by Director," specifies that: "The Director may compromise or settle any unpaid civil penalty at any amount that the Director deems appropriate." OAR 340-12-047(2) lists several factors that the Director may consider in determining whether a penalty should be compromised or settled. The factor most relevant to SEPs is OAR 340-12-047(e), which allows for penalty mitigation if "the compromise or settlement would be consistent with the Department's goal of protecting the public health and environment."

- 2) The SEP proposal should be in writing and be sent to Van Kollias, Manager, Enforcement Section, Oregon Department of Environmental Quality, 2020 SW 4th, Suite 400, Portland, OR 97201-4987. It must involve an action/activity not otherwise required of the violator by law and an activity not set to become a future enforceable requirement as identified by a law, regulation or government register. The proposer must define the expected benefit and results of the SEP and any means of measuring these benefits and results. Terms and conditions are at the discretion of the Director or staff authorized by him. The proposing party must submit an estimate of the cost of any SEP. Time spent on the SEP by the SEP applicant's employees shall not be considered in determining the cost of an SEP. Projects funded by state or federal government loans, contracts or grants are not allowable as SEPs.
- 3) The Department will only consider SEPs for cases with a total penalty of \$2,000 or greater. SEP proposals that may take considerable DEQ time to review, implement, monitor, or follow-up will not be approved. It is within the Department's discretion to approve or not approve a SEP proposal.
- 4) SEPs will be looked on most favorably when a Respondent has self-reported the violation and shown willingness and effort to correct violations in a timely manner once they are discovered. DEQ will consider the enforcement history of a Respondent. SEPs will generally be more appropriate for first-time violators than for repeat offenders or recalcitrants. Penalties for violations which were willfully or intentionally conducted or have a criminal component will not be eligible for an SEP reduction.

- 11) The Department will only mitigate the economic benefit (EB) portion of a civil penalty as part of a SEP if the EB portion is 25% or less than the total penalty. The Department reserves the right to offset greater EB in a SEP in other cases if it finds that doing so will substantially benefit public health or the environment.
- 12) Respondent must agree that it will not use the value of an SEP as a tax deduction or as part of a tax credit application.
- 13) DEQ's pollution prevention manager will consider proposed SEPs involving pollution prevention. Other DEQ program managers will consider proposed SEPs involving that manager's program. DEQ's Enforcement Administrator will decide on SEP proposals based on recommendations from staff.
- 14) The SEP will be made part of the Mutual Agreement and Order (MAO) settling the penalty. Non-compliance with the MAO is subject to further enforcement. Non-completion of the SEP, or partial completion, will reinstate Respondent's liability for any penalty mitigated by the SEP.
- 15) The SEP proposer must submit a final SEP report to DEQ after the completion of the SEP. This will confirm completion of the project and document any measurable results. The report shall include detailed documentation of SEP expenses and copies of all relevant receipts.
- 16) The Department's Enforcement Section will give information to the Public Affairs Office on every accepted SEP. The SEP proposer shall agree that whenever it publicizes a SEP or the results of the SEP, it will state in a prominent manner that the project is being undertaken as part of the settlement of an Oregon DEQ enforcement action.
- 17) Respondent shall certify in its SEP proposal that its SEP meets the requirements of this internal management directive.
- 18) The guidance contained in this document is for DEQ staff and is not intended and cannot be relied upon to create any rights, substantive or procedural, enforceable by any party in litigation with DEQ.

RECEIVED
APR 22 1998
ATER WYNNE

April 16, 1998

Mr. Larry Schurr
Department of Environmental Quality
2020 SW Fourth Avenue
Suite 400
Portland, Oregon 97201

Re: NOV No. WMC/HW-NWR-97-176
Cascade General, Inc.

Dear Mr. Schurr:

Cascade General, Inc. (Cascade) submitted a letter dated August 1, 1997 and a hearing request dated December 15, 1997 in response to the Department's inquiry and subsequent issuance of a notice of violation concerning the management of Tectyl oil in May 1996. The explanation of Cascade's actions provided in the letter and hearing request was based on readily available records and recollections of personnel involved in the management of the materials.

During Cascade's preparation for the informal hearing, additional records were retrieved showing that the account of the Tectyl's generation provided in the explanation was inaccurate. The newly discovered records document that the Tectyl was used oil, and not unopened product as originally reported. As such, the oils clearly met the definition of used oil, regardless of flash point, and were appropriately managed under the used oil rules.

The following records are attached for your review.

1. Specifications dated December 15, 1995 for work performed by Cascade on the USNS Andrew J. Higgins during which the Tectyl oils were used. Tectyl 502C, Grade 2 is identified in the specification as MIL-C-16173, Grade 2. Tectyl 511M, Grade 5 is identified in the specification as MIL-C-16173, Grade 5.
2. A Cascade General purchase order dated April 2, 1996 for the Tectyl products.
3. Laborer's reports for the removal of 41 drums of used Tectyl (and other products) from the Higgins.
4. Relevant sections of MSDSs for the Tectyl 502C and 511M showing the chemical compositions of the materials.



5. Chromatograms for the analysis of an archived sample of the Tectyl 502C removed from the Higgins.
6. A letter from Valvoline dated March 25, 1998 providing information on the Tectyl products.

The Higgins was being prepared for deactivation. The attached specifications describe the work performed by Cascade and its subcontractors where the Tectyl was circulated through several engine systems to install a protective coating. Following the work, the used oils were recovered and processed for recycling.

The Tectyl oils are a blend of light and heavy-fraction petroleum distillates providing the desirable combination of viscosity and protective properties to coat metal surfaces with a removable film of petroleum. The blends are ignitable by their own nature due to the presence of aliphatic hydrocarbons inherent in the formulation.

By design, the Used Oil Rules allow for a broad interpretation of the oil's use and processes contaminating the oil, and in no way exclude industrial coating oil. The only criteria for being used oil, established in the definition under 340-111-0020(2)(c), are: 1) it must be oil, and; 2) it must be contaminated through use. The first criterion, that it must be oil, was met. OAR 340-111-0020(1), adopting the definition of oil at OAR 340-108-0002(11), defines oil as follows:

"Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.

The Tectyl products were a formulation of light and heavy fraction petroleum hydrocarbons derived from crude oil, with minor amounts (less than two percent by weight) of nonpetroleum additives. The attached MSDSs and Valvoline letter provide an overview of the active ingredients in the products, and demonstrate the primary ingredients are petroleum related. The chromatogram for the analysis of the 502C graphically shows the distribution of petroleum distillates in the formulation. Petroleum hydrocarbons with carbon ranges of C6 to C40 were detected, with major distillate fractions present in the mineral spirits and heavy oil ranges. Each of the distillate fractions detected in the C6 to C40 range, as well as the formulation, meet the regulatory definition of oil. As such, the Tectyl products were oil.

The second criterion, that the oil is contaminated through use, was also met. The specifications describe the activities, which contaminated the oil, and the laborers' reports document the recovery of the oil after use.

The only oils excluded from management under the Used Oil Rules are mixtures of used oil and hazardous waste, and oil-based products used as solvents or antifreeze. The used Tectyl oils were not mixed with listed or characteristic hazardous wastes, and were ignitable by their own nature. Also, the oils were not used as solvents or antifreeze, but

were solely used as a metal preservative in accordance with their intended purpose. Therefore, none of the exclusions apply.

During telephone conversations, the Department has stated its position that the purpose and use of the oils were similar to those of paint, and therefore the oils were subject to regulation as hazardous waste due to ignitability. We disagree that the apparent similarities between paint and industrial coating oil precludes the management of spent oil under the Used Oil Rules for the following reasons.

1. There are in fact significant differences in both the formulation and protective mechanisms of paint and industrial coating oils. Paint contains a high weight percentage of solids (30 to 100 percent) which adhere to a substrate to form a hard film that acts as a physical barrier against moisture and contaminants. In contrast, industrial coating oils do not contain appreciable solids, and form a soft film on the substrate that chemically repels moisture due to the hydrophobic nature of the formulation. Because of these differences in properties, paints and industrial coating oils each have specific applications and cannot be used interchangeably or substituted. In short, they are two distinct categories of materials.
2. There are no prohibitions against the management of industrial coating oils under the Used Oil Rules. Whether or not a material is suitable for management as used oil is based solely on the threefold analysis described above. That is, if a material is oil, it is contaminated through use, and it is not excluded, then it can be managed as used oil, regardless of its apparent similarity in form or function to paint or any other material. As demonstrated, the Tectyl products met these criteria and were appropriately managed under the Used Oil Rules.

We trust this response and the attached information addresses the Department's concerns regarding the management of the Tectyl products, and based on the new information, the Department will rescind the Notice of Violation dated November 18, 1997 issued to Cascade. Please contact the undersigned at 247-1672, or Mr. John Schultz at 226-1191, to schedule an informal hearing at your convenience.

Sincerely,



T. Alan Spratt
Director of Environmental Services

Attachments

cc: John Schultz,

USNS ANDREW J HIGGINS
(T-AO 190)

MACHINERY, PROPULSION

SPEC. NO. MSCPAC 96-06

ITEM NO. 202

CATEGORY "A"

15 DEC 1995
MSCP/VOGEL/BSV

SHIP SERVICE GENERATOR (SSDG) PRESERVATION AND LAY-UP

1.0 ABSTRACT

- 1.1 This item describes the requirement to perform long term preservation/lay-up of the Ship Service Diesel Generators.

2.0 REFERENCES

- 2.1 MARAD Form MA-496, dated April 22, 1994.
- 2.2 NAVSEA Technical Manual, T9233-AH-MMC-020, Diesel Engine, ALCO 251-F

3.0 ITEM LOCATION, QUANTITY, AND DESCRIPTION

3.1 Location:

- 3.1.1 Engine Room, Lower Level, 3-91-1 and 3-91-2

3.2 Quantity: Two (2)

3.3 Description:

- 3.3.1 Engine: Diesel

Manufacture: General Electric, Alco Power Division

Model: 251F

Cylinders: 18

Configuration: "V" Type

Cycle: 4 Cycle Turbocharged

BHP: 3525

RPM: 900

KW: 2630

4.0 GOVERNMENT FURNISHED EQUIPMENT/MATERIAL/SERVICE/INFORMATION: None

5.0 NOTES

- 5.1 MIL-L-21260, Grade 30 shall be used if MIL-L-21260, Grade 40 is unavailable.
- 5.2 All required tags shall be water proof and all required information shall be typed in with 1/8" minimum size letters.
- 5.3 Items shall be preserved in accordance with the applicable method described below. The preservation selected must adequately protect the item from corrosion, deterioration and physical function damage during storage for greater than two years. The preservation procedure should be accomplished without interruption. When interruptions are unavoidable, temporary wraps, covers or enclosures shall be provided to insure against contamination or deterioration of the diesel. Safety and health precautions taken during the performance of this specification must, as a minimum, meet all OSHA and Environmental Protection Agency (EPA) requirements.
- 5.4 Prior to the initiation of diesel engine external surface preservation, all surfaces shall be clean and free of foreign matter. All bare painted surfaces shall be restored, equivalent to original condition prior to application of surface preservatives. Care shall be taken when cleaning

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complex assemblies, requiring internal preservation. Entrapped cleaning fluid must be drained to the drip point prior to proceeding to the next step.

6.0 QUALITY ASSURANCE REQUIREMENTS

- 6.1 Standard quality assurance inspections as required by the contents of this document. Inspection shall be accomplished by the MSCREP and Chief Engineer.
- 6.2 When the engine lube oil sump, or any part of the lube oil system is open, care shall be taken that no foreign material is allowed to enter the lube oil sump or the system. Never leave an open engine unattended. Before the engine lube oil sump or any part of the engine is closed, a complete inspection shall be performed to ensure that no foreign materials, rags, tools, etc. are left in the lube oil sump or system.
- 6.3 Do not use any other grade in the fuel system other than MIL-L-21260, Grade 10.
- 6.4 After preservation of the engine, do not bar, jack, or roll the engine over, disruption of the protective film will occur.
- 6.5 Certified lint free rags or wiping material shall be used for cleaning the SSDG's lube oil and fuel oil systems.

7.0 STATEMENT OF WORK REQUIRED

- 7.1 Arrangement/Outfitting
 - 7.1.1 Provide all labor, material, rigging and staging as required to perform work described in this item.
- 7.2 Structural: None
- 7.3 Mechanical/Fluid: None
 - 7.3.1 All work on this paragraph shall be accomplished under the direct supervision of the contractor with inspections by the MSCREP and Chief Engineer. The contractor shall provide all necessary special tools and material required by this work item. The contractor shall remove and dispose of approximately 1500 gallons of chemical treated diesel engine cooling jacket water from each of the two (2) SSDG's. The contractor shall remove and dispose of approximately 400 gallons of lube oil from each of the SSDG's lube oil sumps and systems. The contractor shall remove and dispose of approximately 100 gallons of diesel fuel or JP-5 from the SSDG's fuel oil system. The contractor shall dispose of all cleaning materials used and debris generated during this work. The contractor shall dispose of all engine fluids, cleaning materials and debris in accordance with work items 009 and 016, contained in this work package. Fluid system capacities are approximations only. The contractor shall be responsible for calculating the exact system capacities for amounts of preservatives required and amounts of fluids for disposal.
 - 7.3.2 The contractor shall provide, in sufficient quantities, all materials required for the proper preservation of the two SSDG's, including but not limited to the following:
 - a. MIL-L-21260, Grade 10, Preservative oil
 - b. MIL-L-21260, Grade 40, Preservative oil. See note 5.1
 - c. MIL-C-16173, Grade 1, Corrosion preventive compound

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SHIP SERVICE GENERATOR (SSDG) PRESERVATION AND LAY-UP

- d. MIL-C-16173, Grade 2, Corrosion preventive compound
- d. MIL-C-16173, Grade 5, Corrosion preventive compound
- e. Certified lint free rags/wiping material
- f. Water proof tape, MIL-T-22085/PPP-T-60
- g. Fire retarding plywood 1/2 inch minimum thickness
- h. Water proof tags, See note 5.2
- i. Fire resistant untreated kraft paper
- j. Mobilux EP2 Grease
- k. MIL-A-907, Anti-seize compound

7.3.3 SSDG JACKET WATER SYSTEM

- 7.3.3.1 Thoroughly drain the jacket water system. Dispose of the chemically treated jacket water in suitable containers. Disconnect piping at the first flange joint off the engine at the inlet to the engine and the outlet from the engine. Blow out the engine piping with dry filtered air.
- 7.3.3.2 Fill the on engine jacket water system with MIL-C-16173, Grade 5 preservative. Allow the system to vent and overflow from the highest point to ensure that all internal surfaces are covered with preservative.
- 7.3.3.3 Let stand two hours. Thoroughly drain the preservative from the engine. Save preservative for reuse. Install steel blanks and gaskets at the engine inlet and outlet flanges.
- 7.3.3.4 Attach a waterproof tag to the jacket water system and control station with the following statement on the tag:

"ON ENGINE JACKET WATER SYSTEM HAS BEEN PRESERVED WITH MIL-L 16173, GRADE 5 PRESERVATIVE. DATE _____"

7.3.4 SSDG GOVERNOR

- 7.3.4.1 Drain the speed control governor and discard the lube oil.
- 7.3.4.2 Fill the governor with clean fuel oil and work the governor by hand from the no fuel to the full fuel position 8 to 10 times. Drain the governor and dispose of the fuel oil.
- 7.3.4.3 Fill the governor with MIL-L-21260, Grade 40 and work the governor by hand from the no fuel to the full fuel position 8 to 10 times. Drain the governor ensure all diesel fuel is removed.
- 7.3.4.4 Fill the governor with MIL-L-21260, Grade 40 to the normal operating level and work the governor by hand from the no fuel to the full fuel position eight to ten times.
- 7.3.4.5 Attach a water proof tag to the governor and control station with the following statement on the tag:

"GOVERNOR HAS BEEN FILLED WITH MIL-L-21260, Grade 40. Date _____".

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7.3.5 SSDG LUBE OIL SYSTEM

7.3.5.1 Thoroughly drain the lube oil system. Drain the lube oil cooler and all the low points of the lube oil system, including the lube oil filter, lube oil strainer housing(s) and engine sump. Blow out the system with dry filtered air as necessary. Dispose of the drained lube oil.

7.3.5.2 The contractor shall provide and install a temporary air/electric driven positive displacement lube oil pump, filter and all hoses and fittings necessary to take a suction from a temporary oil supply tank or the engine sump and supply filtered preservative lubrication to the engine at the normal engine inlet flange. Disconnect piping at the first flange joint off the engine at the inlet to the engine. NOTE: If a temporary oil supply tank is used, ensure the engine sump does not overflow.

7.3.6 SSDG LUBE OIL SUMP

7.3.6.1 Clean and wipe the lube oil sump using lint free rags. See paragraph 6.5. All carbonaceous deposits, dirt and oil shall be removed.

7.3.6.2 Contractor shall supply and install new crankcase cover gaskets if needed.

7.3.6.3 Prior to installing crankcase covers an inspection shall be accomplished by the MSCREP and Chief Engineer to ensure lube oil sump is clean and free of all foreign material.

7.3.6.4 Install all crankcase covers.

7.3.6.5 Fill the temporary lubricating oil supply tank or the engine sump to operating capacity with MIL-C-16173, Grade 2.

7.3.6.6 Ensure the temporary lube oil pump is in an operating condition and is capable of maintaining engine system pressure at a minimum of 40 psig.

7.3.6.7 Prime the temporary lube oil pump and operate the pump for a minimum of one half hour. Manually bar the engine over while preservative pump is running. Vent the filter and strainer housings as necessary. Visually inspect all main bearing journals, piston rod small end bearings, valve running gear, camshafts, etc. to ensure preservative is reaching all normally lubricated areas.

7.3.6.8 Attach waterproof tags to the SSDG and control station with the following statement on the tags:

"LUBE OIL SYSTEM HAS BEEN FILLED WITH MIL-C-16173,
Grade 2. Date _____".

7.3.7 SSDG FUEL OIL SYSTEM

7.3.7.1 Remove the disposable fuel oil filter element(s) and discard.

7.3.7.2 Clean the fuel oil filter housing using lint free rags. See paragraph 6.5.

7.3.7.3 Contractor shall supply and install new fuel oil filter element(s).

7.3.7.4 Fill the fuel oil filter housing with MIL-L-21260, Grade 10 before installing cover(s). See paragraph 6.3.

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- 7.3.7.5 Remove and clean the fuel oil strainer element(s).
- 7.3.7.6 Clean the fuel oil strainer housing using lint free rags. See paragraph 6.5.
- 7.3.7.7 Install the strainer element(s). Fill the fuel oil strainer housing with MIL-L-21260, Grade 10 before installing cover(s). See paragraph 6.3.
- 7.3.7.8 Disconnect the fuel oil supply line at the fuel pump inlet or any other convenient location in the suction side of the fuel pump and install a temporary electric/air driven fuel oil pump.
- 7.3.7.9 Install a fuel suction hose/piping from the temporary fuel oil pump to take suction from a clean container of suitable size.
- 7.3.7.10 Fill the container with clean, filtered MIL-L-21260 Grade 10. See paragraph 6.3.
- 7.3.7.11 Disconnect the return line from the fuel header so that the return fuel discharges to another container of suitable size.
- 7.3.7.12 Position the fuel rack at mid travel and prime and vent the fuel oil system and circulate clean, filtered preservative oil, MIL-L-21260, GRADE 10 through injectors, booster pump, filter, and fuel lines. Observe the fuel oil return line, when a clear supply of the preservative oil is observed at the fuel return line, stop priming the fuel system.
- 7.3.7.13 After completing step 7.3.8.8 attach a water proof tag to the fuel system and control station with the following statement on the tag:
"ON ENGINE FUEL SYSTEM HAS BEEN FILLED WITH PRESERVATIVE OIL MIL-L-21260, Grade 10. Date _____".

7.3.8

SSDG PRESERVATION

- 7.3.8.1 Steps 7.3.8.2 through 7.3.8.9 will be conducted by ships force, if possible.
- 7.3.8.2 Prelube the engine in accordance with normal operating procedures (minimum of 30 minutes). Ensure lube oil filter and strainers are full.
- 7.3.8.3 Ensure lube oil is at normal operating level.
- 7.3.8.4 Operate the temporary electric driven lube oil pump.
- 7.3.8.5 Relieve the cylinder compression by opening the cylinder test valves. Manually trip the diesel engine overspeed protective device to prevent the diesel engine from starting while turning the engine over. Motor the SSDG over several revolutions (minimum of 30 seconds) with the engine starting device to circulate the preservative compound through the engine systems.
- 7.3.8.6 Observe the SSDG lube oil pressure gauge when using MIL-C-16173, Grade 2 lube oil.
- 7.3.8.7 Do not let the engine run out of preservative supplying the fuel system. Ensure that the fuel suction line stays submerged in the preservative. Add filtered preservative to the supply container as required.
- 7.3.8.8 Motor the engine for a minimum of 30 seconds.

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- 7.3.8.9 Do not jack bar or roll over the engine after this procedure is completed, until ready to put engine back into operation, because disruption of protective film will occur.
- 7.3.8.10 Drain the fuel piping. Remove each cylinder fuel injector in accordance with reference (a). Flush injector with MIL-L-21260, Grade 10 on injector test stand. Drain excess preservative from injectors and set injectors aside. Reinstall after engine preservation is completed, see paragraph 7.3.8.15.
- 7.3.8.11 Open all valve assembly covers.
- 7.3.8.12 Remove all camshaft covers, both sides of engine.
- 7.3.8.13 Open all crankcase access doors, both sides of engine.
- 7.3.8.14 Ensure that dry filtered air is used and spray preservative oil MIL-C 16173, Grade 2: on camshafts; all internal surfaces; in each valve cover on all valve assembly components; on the gear train; on the inner surfaces of all cylinder liners, pistons rods, counterweights and all inside surfaces of the crankcase. Spray preservative on each upper cylinder liner surface through the fuel injector hole.
- 7.3.8.15 Reinstall fuel injectors with new gaskets, in accordance with Reference 2.2.
- 7.3.8.16 Close all cylinder test valves.
- 7.3.8.17 Install new gaskets and reinstall all valve covers, cam covers, gear case covers and crankcase access doors.
- 7.3.8.18 Thoroughly drain the lube oil system and engine sump. Drain all system low points. Save preservative for reuse.

7.3.9 SSDG POST PRESERVATION ACTIONS

- 7.3.9.1 Shut and lockwire the starting air inlet valve to the SSDG. Attach a waterproof tag to the starting air inlet valve with the following statement on the tag:

"DO NOT BAR, JACK OR ROLL OVER THIS ENGINE UNTIL READY TO PUT BACK INTO OPERATION, BECAUSE DISRUPTION OF PROTECTIVE FILM WILL OCCUR".

- 7.3.9.2 Install steel pancake blanks (coated with preservative) and gaskets in the lube oil supply and return lines. Attach a waterproof tag to the supply and return lines with the following statement on the tag:

"BLANKS INSTALLED AND ENGINE LUBE OIL SYSTEM PRESERVED WITH MIL-C-16172, Grade 2. SYSTEM SHALL BE FLUSHED BEFORE NORMAL OPERATION. DATE _____".

The lube oil system external to the engine is preserved as required elsewhere in this work package.

- 7.3.9.3 Attach a water proof tag to the lube oil filter housing with the following statement on the tag:

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"LUBE OIL FILTERS AND SYSTEM PRESERVED WITH MIL-C-16173, GRADE 2, SYSTEM SHALL BE FLUSHED AND NEW FILTERS INSTALLED BEFORE NORMAL OPERATION".

- 7.3.9.4 Fill the governor to the top (above normal operating level) with MIL-L-21260, Grade 40. Attach a water proof tag to the governor with the following statement on the tag:

"GOVERNOR IS OVER FILLED WITH MIL-L-21260, GRADE 40. GOVERNOR IS TO BE FLUSHED BEFORE OPERATION. Date _____".

- 7.3.9.5 Install steel pancake blanks (coated with preservative) and gaskets in the fuel supply and return lines. Attach a waterproof tag to the supply and return lines with the following statement on the tag:

"BLANKS INSTALLED AND ENGINE FUEL SYSTEM PRESERVED WITH MIL-L-21260, Grade 10. SYSTEM SHALL BE FLUSHED BEFORE NORMAL OPERATION. DATE _____".

The fuel system external to the engine is preserved as required elsewhere in this work package.

- 7.3.9.6 Carefully remove the turbocharger exhaust expansion joint insulation blankets. Tag and store for reuse. Remove the expansion joint at the turbocharger exhaust gas outlet. Tag and match-mark the expansion joint for reinstallation in the same location/orientation. Put all hardware in sealable plastic bags and attach to each expansion joint. Store in a secure location.
- 7.3.9.7 Blank off the turbocharger exhaust gas discharge flange with a full face neoprene gasket and fire retarding plywood securely bolted in place. Seal the edges of the blank flange with waterproof tape.
- 7.3.9.8 Ensure the exhaust stack cover is installed.
- 7.3.9.9 Remove clean and reinstall the turbocharger intake screen and filters. Wrap the entire air intake filter with two layers of fire resistant paper. Use waterproof tape to seal all seams on the paper and seal the edges of the paper to the filter housing.
- 7.3.9.10 Disconnect the crankcase exhaust piping between the engine top deck and the crankcase exhaust fan. Install fire retarding plywood blanks and gaskets on each end. Secure removed piping to the engine. Attach a water proof tag to the blank with the following statement on the tag:
- "CRANKCASE EXHAUST VENT REMOVED FOR PRESERVATION, REINSTALL BEFORE OPERATION".**
- 7.3.9.11 Prepare all chipped or scraped or damaged painted surfaces for painting. Touch up damaged areas with the same type, quality, and color paint as originally used.
- 7.3.9.12 Grease all fittings with Mobilux EP2 grease. Apply MIL-L-21260, Grade 40 preservative oil to all oil fittings and linkage pivot pins.

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- 7.3.9.13 Apply MIL-L-21260, Grade 40 on all fuel pump linkage and pivot points.
- 7.3.9.14 Coat all external unpainted machined surfaces, such as the flywheel, coupling, coupling bolts, mounting and foundation bolts, governor, and fuel injector control linkage, springs and fuel racks with MIL-C-16173, Grade 1. Wrap the fuel racks with beeswax/paraffin paper or oil paper.
- 7.3.9.15 Machined surfaces on the outside of crank case and at the tops of the cylinder blocks shall be coated with MIL-C-16173, Grade 1.
- 7.3.9.16 Place a copy of this procedure in a sealable plastic bag and attach to each engine in a conspicuous location. Remove temporary tags. Attach waterproof tags to the engine in a conspicuous location with the following information on the tags:
- a. The date the engine was preserved and laid up.
 - b. Type of preservatives used by MIL-SPEC and grade.
 - c. The statement that the engine is not to be barred, jacked, or rolled over until ready to put back into operation because disruption of the protective film will occur.

7.4 Electrical: None

7.5 Electronics: None

7.6 Preparation of Drawings: None.

7.7 Inspection And Testing

7.7.1 All work shall be performed to the satisfaction of the MSCREP and the MARAD Representative.

7.8 Painting

7.8.1 Prime and paint new surfaces to match the surrounding areas. All disturbed areas shall be wire brushed to remove scale, rust and loose paint; then cleaned, primed and painted to match surrounding areas, in accordance with work item no. 018 of this work package.

7.9 Marking

7.9.1 As cited above.

7.10 Manufacturer's Representative

7.10.1 Contractor shall provide the services of a certified ALCO diesel Field Service Representative to provide guidance to the contractor during accomplishment of above work.

7.10.2 POC: Olympic Diesel, John Mienhart, (206) 932-1800.

8.0 GENERAL REQUIREMENT

8.1 All fasteners shall be coated with MIL-A-907, anti-seize prior to installation.

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PREFACE

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Amend 0007

EPI

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EMERGENCY DIESEL GENERATOR (EDG) PRESERVATION AND LAYUP

1.0 ABSTRACT

1.1 This item describes the requirement to perform preservation/lay-up of the Emergency Diesel Generator.

2.0 REFERENCES AND ENCLOSURES

2.1 MARAD Form MA-496, dated April 22, 1994.

2.2 NAVSEA Technical Manual T931-AE-MMC-010, Emergency Diesel Generating Set 8163-92T

3.0 ITEM LOCATION, QUANTITY, AND DESCRIPTION

3.1 Location:

3.1.1 Emergency Diesel Generator Room, 06-96-0

3.2 Quantity: One (1)

3.3 Description:

3.3.1 Engine: Diesel

Manufacture: Detroit Diesel Corporation

Model: 8163-92T

Series: 6V-92TA

Cylinders: 16

Configuration: "V" Type

Cycle: 2 Cycle Turbocharged w/ roots blower

4.0 GOVERNMENT FURNISHED EQUIPMENT/MATERIAL/SERVICE/INFORMATION: None

5.0 NOTES

5.1 MIL-L-21260, Grade 30 shall be used if MIL-L-21260, Grade 40 is unavailable.

5.2 All required tags shall be water proof and all required information shall be typed in with 1/8" minimum size letters.

5.3 Items shall be preserved in accordance with the applicable method described below. The preservation selected must adequately protect the item from corrosion, deterioration and physical function damage during storage for greater than two years. The preservation procedure should be accomplished without interruption. When interruptions are unavoidable, temporary wraps, covers or enclosures shall be provided to insure against contamination or deterioration of the diesel. Safety and health precautions taken during the performance of this specification must, as a minimum, meet all OSHA and Environmental Protection Agency (EPA) requirements.

5.4 Prior to the initiation of diesel engine external surface preservation, all surfaces shall be clean and free of foreign matter. All bare painted surfaces shall be restored, equivalent to original condition prior to application of surface preservatives. Care shall be taken when cleaning complex assemblies, requiring internal preservation. Entrapped cleaning fluid must be drained to the drip point prior to proceeding to the next step.

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6.0 QUALITY ASSURANCE REQUIREMENTS

- 6.1 Standard quality assurance inspections as required by the contents of this document. Inspection shall be accomplished by the MSCREP and Chief Engineer.
- 6.2 When the engine lube oil sump, or any part of the lube oil system is open, care shall be taken that no foreign material is allowed to enter the lube oil sump or the system. Never leave an open engine unattended. Before the engine lube oil sump or any part of the engine is closed, a complete inspection shall be performed to ensure that no foreign materials, rags, tools, etc. are left in the lube oil sump or system.
- 6.3 Do not use any other grade in the fuel system other than MIL-L-21260, Grade 10.
- 6.4 After preservation of the engine, do not bar, jack, or roll the engine over, disruption of the protective film will occur.
- 6.5 Certified lint free rags or wiping material shall be used for cleaning the SSDG's lube oil and fuel oil systems.

7.0 STATEMENT OF WORK REQUIRED

- 7.1 Arrangement/Outfitting: None
- 7.2 Structural: None
- 7.3 Mechanical/Fluid: None

7.3.1 All work on this paragraph shall be accomplished under the direct supervision of the contractor with inspections by the MSCREP and Chief Engineer. The contractor shall provide all necessary special tools and materials required by this work item. The contractor shall remove and dispose of approximately 60 gallons of chemically treated diesel engine cooling jacket water from the EDG. The contractor shall remove and dispose of approximately 10 gallons of lube oil from the EDG's lube oil sump and system. The contractor shall remove and dispose of approximately 1 gallon of diesel fuel from the EDG's fuel oil system. The contractor shall dispose of all cleaning materials used and debris generated during this work. The contractor shall dispose of all engine fluids, cleaning materials, and debris in accordance with work items 009 and 016, contained in this work package. Fluid systems capacities are approximations only.

7.3.2 The contractor shall be responsible for calculating the exact system capacities for amounts of fluids for disposal and the amounts of preservatives required. The contractor shall provide in sufficient quantities all materials required for the proper preservation of the EDG, including but not limited to the following:

- a. MIL-L-21260, Grade 10, Preservative oil
- b. MIL-C-16173, Grade 1, Corrosion preventive compound
- c. MIL-C-16173, Grade 2, Corrosion preventive compound
- d. MIL-C-16173, Grade 4, Corrosion preventive compound
- e. MIL-C-16173, Grade 5, Corrosion preventive compound
- f. Lint free rags/wiping material
- g. Water proof tape, MIL-T-22085/PPP-T-60

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- h. Fire retarding plywood, 1/2 in. minimum thickness
- i. Water proof tags, See note 5.2
- j. Fire resistant untreated kraft paper
- k. Mobilux EP2 Grease
- l. MIL-907, Anti-seize compound

7.3.3 EDG JACKET WATER SYSTEM

- 7.3.3.1 Thoroughly drain the jacket water system. Drain all system low points. Blow out the engine and radiator with dry filtered air as necessary. Dispose of the chemically treated jacket water in suitable containers.
- 7.3.3.2 Fill engine cooling system to normal operating level with MIL-C-16173, GRADE 5.
- 7.3.3.3 Attach a waterproof tag to the jacket water system and control station with the following statement on the tag:
"JACKET WATER SYSTEM HAS BEEN PRESERVED WITH MIL-C-16173, GRADE 5. DATE _____".

7.3.4 EDG LUBE OIL SYSTEM

- 7.3.4.1 Thoroughly drain lube oil from engine sump, governor and governor reservoir. Clean all carbonaceous material from the engine sump. Drain all system low points. Dispose of drained lube oil.
- 7.3.4.2 Fill engine sump, governor and governor reservoir with preservative oil, MIL-C-16173, Grade 2, to normal operating levels.
- 7.3.4.3 Attach temporary water proof tags to the EDG and control station with the following statement on the tags:
"LUBE OIL SYSTEM HAS BEEN FILLED WITH PRESERVATIVE OIL MIL-C-16173, Grade 2. Date _____".

7.3.5 EDG LUBE OIL FILTER

- 7.3.5.1 Remove the lube oil filter elements.
- 7.3.5.2 Clean the interior of the filter case with lint free rags. See paragraph 6.5.
- 7.3.5.3 The contractor shall supply and install new lube oil filter elements.
- 7.3.5.4 Fill the filter housing with clean MIL-C-16173, Grade 2 at reassembly.

7.3.6 EDG INDUCTION AIR SYSTEM

- 7.3.6.1 Remove air filters.
- 7.3.6.2 Clean interior of filter cases with lint free rags. See paragraph 6.5.
- 7.3.6.3 The contractor shall supply and install new air filters.
- 7.3.6.4 Remove induction air manifold (airbox) covers.
- 7.3.6.5 Clean interior of the air box of all carbonaceous material.

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7.3.6.6 Spray interior of the air box and each cylinder with MIL-C-16173, Grade 2 preservative. Position piston crown so that it is at the air inlet ports. Clean/drain excess preservative that may have accumulated in individual cylinders. Any excess of compound may result in a hydraulic lock and cause serious damage when engine is rolled over or started.

7.3.6.7 Replace induction air manifold covers, re-install with new gaskets.

7.3.7 EDG FUEL SYSTEM

7.3.7.1 Drain the fuel oil from engine.

7.3.7.2 Remove the disposable fuel filter elements and discard.

7.3.7.3 Clean interior of filter case with lint free rags. See paragraph 6.5.

7.3.7.4 The contractor shall supply and install new fuel filter elements.

7.3.7.5 Fill the filter housing with clean, filtered MIL-L-21260 Grade 10 at reassembly.

7.3.7.6 Disconnect the fuel oil line at the fuel pump inlet. Install temporary hoses or piping at the pump inlet to take a suction from a clean container of suitable size. Fill the container with clean, filtered MIL-L-21260, Grade 10. See paragraph 6.3.

7.3.7.7 Disconnect the return line from the fuel header so that the fuel return discharges to a separate container.

7.3.7.8 Position the fuel racks at mid travel. Loosen each of the sixteen fuel return jumper lines at each injector. Loosen the fitting just enough to verify preservative flow when the engine is motorized.

7.3.7.9 Attach a temporary water proof tag to the EDG fuel system and control station with the following statement on the tag:

"FUEL SYSTEM HAS BEEN FILLED WITH PRESERVATIVE OIL MIL-L-21260, Grade 10. Date _____".

7.3.8 EDG MOTORING OPERATION FOR PRESERVATION

7.3.8.1 Step 7.3.8.2 through 7.3.8.6 shall be conducted by ships force, if possible.

7.3.8.2 Ensure lube oil is at normal operating level.

7.3.8.3 Manually trip the diesel engine overspeed protective device to prevent the diesel engine from starting while turning the engine over.

7.3.8.4 Ensure the engine starting device is fully operational. Motor the EDG over several revolutions (minimum of thirty seconds) with the engine starting device to circulate preservative compound through the engine systems. Do not let the engine run out of preservative supplying the fuel system. Repeat this step as necessary until a clear supply of preservative is observed at the fuel return discharge.

7.3.8.5 Observe the EDG lube oil pressure, when using MIL-C-16173, Grade 2 lube oil.

7.3.8.6 Tighten the fuel return jumper lines at each injector.

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7.3.8.7 Do not jack bar or roll over the engine after this procedure is completed, until ready to put engine back into operation, because disruption of protective film will occur.

7.3.8.8 Ensure EDG remote start controls are disconnected and tagged.

7.3.9 EDG POST OPERATION PRESERVATION

7.3.9.1 Bleed all pressure from hydraulic start unit and attach a tag to the unit with the following statement:

"ENGINE FUEL SYSTEMS HAVE BEEN PRESERVED WITH MIL-L-21260, Grade 10 AND LUBE OIL SYSTEMS HAVE BEEN PRESERVED WITH MIL-C-16173, Grade 2, SYSTEMS SHALL BE FLUSHED BEFORE NORMAL OPERATION. Date _____".

7.3.9.2 Attach a water proof tag to the lube oil filter housing with the following statement on the tag:

"LUBE OIL FILTERS AND LUBE OIL SYSTEM HAVE BEEN FILLED WITH MIL-C-16173, GRADE 2, INSTALL NEW FILTERS BEFORE NORMAL OPERATION".

7.3.9.3 Install steel pancake blanks (coated with preservative) and gaskets in the fuel supply and return lines. Ensure that on engine fuel supply and return lines are completely filled with MIL-L-21260, Grade 10 preservative oil. Attach a waterproof tag to the supply and return lines with the following statement on the tag:

"BLANKS INSTALLED AND ENGINE FUEL SYSTEM PRESERVED WITH MIL-L-21260, Grade 10. SYSTEM SHALL BE DRAINED AND FLUSHED BEFORE NORMAL OPERATION. DATE _____".

7.3.9.4 Isolate the engine from the fuel system. Lockwire shut the fuel supply valves to engine. Attach tags to the valves with the following statement on the tags:

"ENGINE FUEL SYSTEM PRESERVED WITH MIL-L-21260, Grade 10. SYSTEM SHALL BE FLUSHED BEFORE NORMAL OPERATION. Date _____".

The fuel system external to the engine is preserved as required elsewhere in this specification.

7.3.9.5 Attach a waterproof tag to the governor with the following statement on the tag:

"GOVERNOR IS PRESERVED WITH MIL-C-16173, Grade 2. GOVERNOR SHALL BE FLUSHED BEFORE NORMAL OPERATION. Date _____".

7.3.9.6 Loosen all (radiator) fan belts. Attach waterproof tags to the engine and the control station with the following statement on the tags:

"BELTS ARE LOOSE, TIGHTEN BEFORE OPERATING DIESEL (EDG)".

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- 7.3.9.7 Thoroughly drain the MIL-C-16173, GRADE 5 preservative from the jacket water system, engine block and radiator into a suitable container for reuse.
- 7.3.9.8 Drain the MIL-C-16173, GRADE 2 preservative from the engine sump governor and governor reservoir into a suitable container for reuse.
- 7.3.9.9 Carefully remove the turbocharger exhaust expansion joint insulation blanket, tag and store for reuse. Remove the expansion joint at the turbocharger exhaust gas outlet. Tag and match-mark the expansion joint for reinstallation in the same orientation. Put all hardware in sealable plastic bags and attach to the expansion joint. Store the expansion joint in the EDG room 06-96-0. Install a blank flange and gasket on the exhaust gas outlet from the turbocharger using fire retarding plywood securely bolted in place. Seal the edges of the blank flange using water proof tape.
- 7.3.9.10 Match-mark and remove the exhaust pipe gooseneck from the discharge flange of the exhaust muffler (topside). Clean the inside of the gooseneck and coat the inside surface with MIL-C-16173, Grade 4. Store the gooseneck in the EDG room 06-96-0. Install a steel pancake blank (coated with preservative) and gasket on the muffler discharge flange. Attach a waterproof tag to the gooseneck with the following statement:
"EDG MUFFLER DISCHARGE GOOSENECK REMOVED FOR PRESERVATION. REINSTALL PRIOR TO OPERATION".
- 7.3.9.11 Cover the air intake openings with fire resistant untreated kraft paper. Use water proof tape to seal all seams on the paper and to seal the edges of the paper to the filter housings.
- 7.3.9.12 Cover the crankcase breather opening(s) air box drains and oil level dipstick opening with water proof tape to prevent entry of foreign material.
- 7.3.9.13 Clean oil and dirt from the governor actuating rod and other unpainted machined surfaces.
- 7.3.9.14 Cover the EDG gage board with fire retarding untreated kraft paper and then cover the front of the gage board with fire retarding plywood and secure in place. Tape around the edges with water proof tape.
- 7.3.9.15 Debris, dirt and foreign material shall be removed from the engine exterior to the maximum extent practicable. Existing corrosion and rust shall be removed to the maximum extent practicable without component disassembly.
- 7.3.9.16 Prepare all chipped or scraped painted surfaces for painting. Touch up damaged areas with the same type, quality, and color paint as originally used.
- 7.3.9.17 The contractor shall replace all paint covered or missing grease fittings on the governor and the fuel rack linkage. Grease all fittings with Mobilux EP2 grease. Apply MIL-L-21260, Grade 40 to all oil fittings and pivot points.

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7.3.9.18 Coat all external unpainted machined surfaces, such as the mounting and foundation bolts, governor, and fuel injector control linkage, springs, and fuel racks with MIL-C-16173, Grade 1.

7.3.9.19 Place a copy of this procedure in a sealable plastic bag and attach to the engine in a conspicuous location. Remove temporary tags. Attach waterproof tags to the engine in a conspicuous location with the following information on the tags:

- a. The date the engine was preserved and laid up.
- b. Type of preservatives used by MIL-SPEC and grade.
- c. The statement that the engine is not to be barred, jacked, or rolled over until ready to put back into operation because disruption of the protective film will occur.

7.3.9.20 Cover the engine with a one piece water proof tarp. Secure the tarp to the deck or engine coaming in several locations. Install tie downs or clips as required.

7.4 Electrical: None

7.5 Electronics: None

7.6 Preparation of Drawings: None.

7.7 Inspection And Testing

7.7.1 All work shall be performed to the satisfaction of the MSCREP and the MARAD Representative.

7.8 Painting

7.8.1 Prime and paint new surfaces to match the surrounding areas. All disturbed areas shall be wire brushed to remove scale, rust and loose paint; then cleaned, primed and painted to match surrounding areas, in accordance with work item no. 018 of this work package.

7.9 Marking

7.9.1 As cited above.

7.10 Manufacturer's Representative: None

8.0 GENERAL REQUIREMENT

8.1 All fasteners shall be coated with MIL-A-907, anti-seize prior to installation.

VENDOR
054856



5555 N. CHANNEL AVE. • PORTLAND, OR 97217-4367
TELEPHONE (503) 285-1111 • FAX (503) 285-1986

ORDER NO.
005499

PAGE 1

VENDOR

VANCOUVER CIL CO., INC.
P.O. BOX 528
VANCOUVER, WASHINGTON 98066

| DATE ORDERED | DATE REQUIRED | DELIVER TO | VESSEL |
|--------------------|---------------|------------|---------|
| 4/02/96 | 4/05/96 | BLCG 49 | HIGGINS |
| JOB OR ACCOUNT NO. | SHIP VIA | F.O.B. | TERMS |
| 553-003 COO | DELIVERED | CG YARD | NET 30 |

TELEPHONE NO. CONTACT: RCY 289-6476

| LINE EM NO. | RECEIVED | QUANTITY | DESCRIPTION | DEPT/CL NO. JOB/ITEM/PART NO. | UNIT OF MEASURE | UNIT COST | LINE COST |
|----------------|----------|----------|-------------------------------|----------------------------------|--------------------|-----------|-----------|
| 1 | | 2530 | CORROSION PREVENTIVE COMPOUND | 553-003-02020 | GAL | 9.75 | 24667.50 |
| 2 | | 2635 | CORROSION PREVENTIVE COMPOUND | 553-003-02020 | GAL | 7.69 | 15567.75 |
| 3 | | 1110 | CORROSION PREVENTIVE COMPOUND | 553-003-02020 | GAL | 10.25 | 11275.50 |
| 4 | | 15 | CORROSION PREVENTIVE COMPOUND | 553-003-02020 | GAL | 13.50 | 202.50 |
| 5 | | 25 | MIL-L-21260 GRACE 10 CIL | 553-003-02020 | GAL | 15.61 | 390.25 |
| 6 | | 25 | MIL-L-21260 GRACE 30 CIL | 553-003-02020 | GAL | 15.61 | 390.25 |
| ***** | | | | | | | 42345.75 |

ACCEPTANCE OF THIS ORDER IS EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF OUR ORDER NUMBER MUST BE SHOWN ON ALL INVOICES SHIPPING NOTICES BILLS OF LADING

SUBMITTED BY: J. MORGAN APPROVED BY (DEPT. HEAD): J. MORGAN APPROVED FOR PURCHASE: T. GASTON

USNS HIGGINS WASTE TO DISPOSE OF

24 DRUMS OF TECTYL 511M GRD#5 - USED

17 DRUMS OF TECTYL 502C GRD#2 - USED

TOTAL OF 41 BBLs TO DISPOSE OF

7 DRUMS OF TECTYL 511M GRD#5 - NEW

2 DRUMS OF TECTYL 891 NEW

2 DRUMS OF HYDRAULIC OIL DTE 16M NEW

5 GAL TECTYL 891 X 2 ea NEW

5 GAL TECTYL 930 X 1 ea NEW

Job# 553-003 ITEM 160



LABOURERS

5555 N. CHANNEL AVENUE • P.O. BOX 4367 • PORTLAND, OREGON 97208
503-285-1111 • FAX 503-289-7179 • EASY LINK TELEX 62-784413

DAILY JOB LOG

SHIP _____ JOB NO. _____
NAME _____ CRAFT _____ SHIFT _____ DATE _____

| ITEM NO | REMARKS-INCLUDE ANY DELAYS, CHANGES, INSPECTIONS |
|---------|--|
| | A. HIGGINS CRANEWAY |
| | 7-UNUSED |
| | 55 gals DRUMS TECTYL-511 M-65. 26 24 used |
| | 55 gals DRUMS TECTYL-891 (SAVE UNUSED) 2 |
| | 55 gals DRUMS TECTYL-5020 62 |
| | 55 gals DRUMS TECTYL 502 C 62 17 |
| | 41 USED - 9 NEW TOTAL 50 |
| | 55gal DRUMS HYDRAULIC OIL DTE 16M 2 UNUSED |
| | 5 gals TECTYL 891 (SAVE UNUSED) 2 |
| | 5 gals TECTYL 930 (SAVE UNUSED) 1 |
| | Job 553-003 ITEM 160 HAZARDOUS WASTE REMOVAL |

| | | |
|--|---|---|
| 72-62-7825-11 MATERIAL SAFETY DATA SHEET |  THE VALVOLINE COMPANY <small>Division of Amford Inc.</small> P.O. BOX 14000 LEXINGTON, KENTUCKY 40512 (800) 264-7000 | 24-hour Emergency Telephone 1 (800) 274-5243 or 1-800-ASHLAND |
|--|---|---|

480159

TECTYL 511M, CLASS I

Page 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: TECTYL 511M, CLASS I

F. E. L. COMPANY
1537 E DEL AVO

68 78 888 0628913-000

Data Sheet No: 600165V-012.006
 Prepared: 02/18/95
 Supersedes: 02/03/93
 Print Date: 04/02/95

CARSON CA 90746

PRODUCT: 580115L1
 INVOICE: 187455
 INVOICE DATE: 05/27/95
 TO: F. E. L. COMPANY
 1537 E DEL AVO

ATTN: PLANT MGR / SAFETY DIR.

CARSON CA 90746

SECTION I-PRODUCT IDENTIFICATION

General or Generic ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II-CONTINGENCIES

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION.
 SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | Percent | PEL | TLV | Ref. |
|--|---------|---------|---------|-------|
| OXYGENATED HYDROCARBON | 10-15 | | | (1) |
| SODIUM PETROLEUM SULFONATE CAS #: 68668-26-9 | 1-10 | | | (2) |
| ALIPHATIC HYDROCARBONS (STANDARD TYPE) CAS #: 6852-41-3 | 45-50 | 100 PPM | 100 PPM | (3) |
| PETROLEUM LUBE OIL CAS #: 64762-65-0 | 25-30 | 5 MG/10 | 5 MG/10 | (4) |
| ETHYLENE GLYCOL MONOPROPYL ETHER CAS #: 2807-30-9 | 1-5 | | | |
| PROPYLENE GLYCOL MONOPROPYL ETHER CAS #: 1547-01-3 | 1-5 | | | (4) |

Notes:

- (1) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 THIS PRODUCT CONTAINS A MAXIMUM OF 100% ZINC COMPOUNDS. ZINC COMPOUNDS ARE REPORTABLE UNDER SECTION 313 OF SARA/TITLE III.
- (2) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS.
- (3) NIOSH RECOMMENDS A LIMIT OF 350 MG/CM³ - 8 HOUR TIME WEIGHTED AVERAGE, 1000 MG/CM³ AS DETERMINED BY A 15 MINUTE SAMPLE.
- (4) PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CM³.
- (5) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
 SUPPLIER RECOMMENDS A WORKPLACE EXPOSURE LIMIT OF 25 PPM-TWA, "SKIN NOTATION".
 THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.
- (6) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

SECTION III-PHYSICAL DATA

| | | |
|------------------------|------------------------|--|
| Boiling Point | for COMPONENT(45-50X) | 315.00 Deg F 157.22 Deg C 760.00 mm Hg |
| Vapor Pressure | for COMPONENT(45-50Z) | 2.00 mm Hg 68.00 Deg F 20.00 Deg C |
| Specific Vapor Density | | HEAVIER THAN AIR |
| Specific Gravity | | 0.801 77.00 Deg F 25.00 Deg C |
| Ferment Volatiles | | 10-507 |
| Evaporation Rate | | SLOWER THAN ETHER |
| Appearance | | AMBER |

CONTINUED ON PAGE: 2

72-62-7625-11

MATERIAL SAFETY DATA SHEET



Division of Ashland Co., Inc. P.O. BOX 14000 LEXINGTON, KENTUCKY 40512 (606) 264-7000

Emergency Telephone 1 (800) 274-5263 or 1-800-ASHLAND

TECTYL 502C

Page: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: TECTYL 502C

F. E. L. COMPANY 1537 E DEL AVE

Handwritten: grade 2 spray

86 70 000 002813-000

Data Sheet No: 800157-009.000 Prepared: 08/11/96 Supersedes: 08/11/96 Print Date: 08/13/96

CARSON CA 90746 ATTN: PLANT MGR / SAFETY DIR.

PRODUCT: 50012948 INVOICE: 707682 INVOICE DATE: 07/29/96 TO: F. E. L. COMPANY 1537 E DEL AVE

CARSON CA 90746

SECTION I - PRODUCT IDENTIFICATION

Trade or Generic ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II - COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF THIS TITLE, IT SECTION 313 ARE IDENTIFIED IN THIS SECTION. SEE DEFINITION PAGE FOR CLARIFICATION

Table with 5 columns: COMPONENT, Percent, PEL, TLV, Note. Rows include: OXGENATED HYDROCARBON (23-30), DIUM PETROLEUM SULFONATE (10-15), AROMATIC HYDROCARBONS (STANDARD TYPE) (30-35), PETROLEUM DISTILLATE (10-15).

- 1) THIS PRODUCT CONTAINS A MAXIMUM OF 100% ZINC COMPOUNDS. ZINC COMPOUNDS ARE REPORTABLE UNDER SECTION 313 OF SUBTITLE III. PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL. 2) THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS. 3) NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1000 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE. 4) PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CUM.

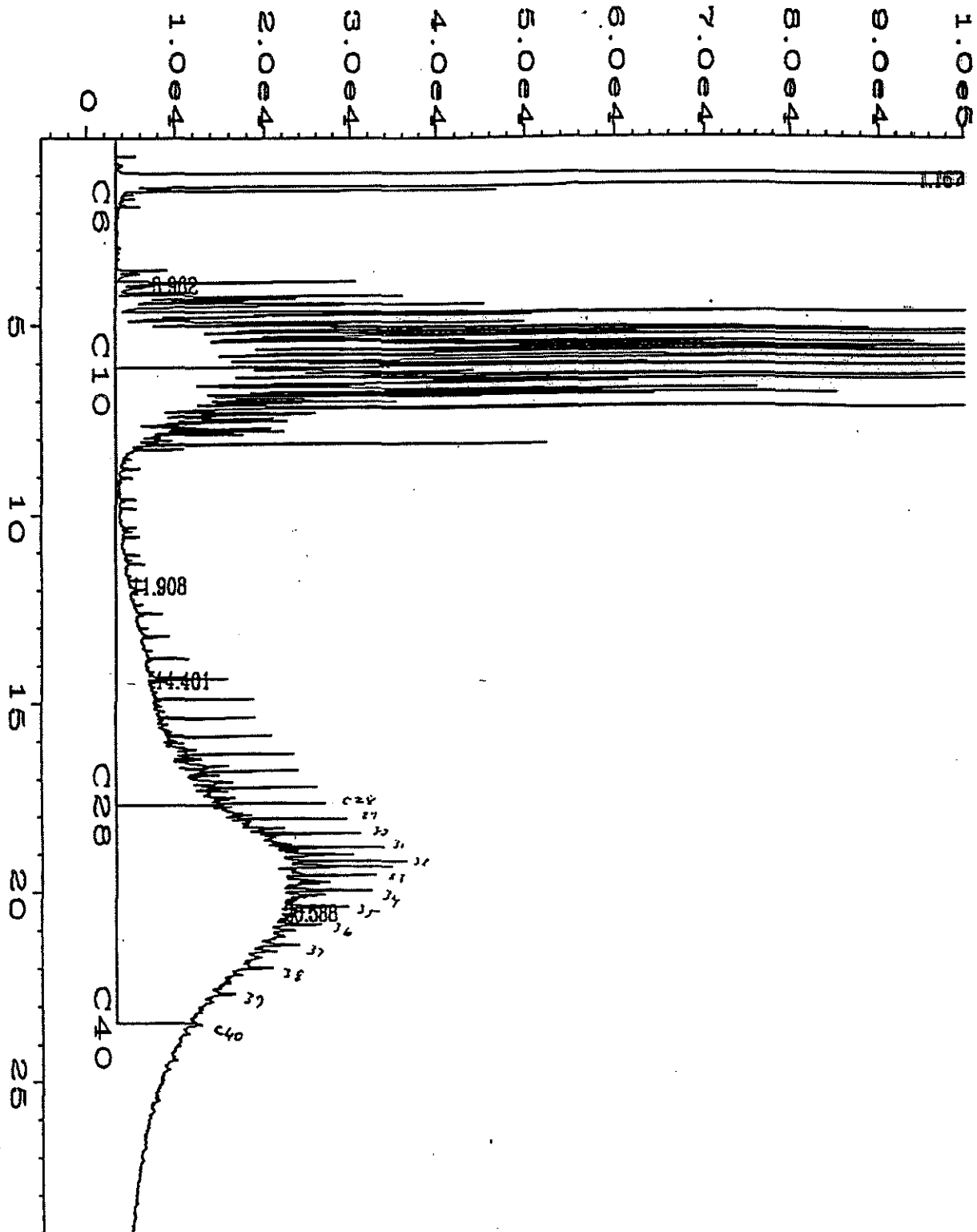
SECTION III - PHYSICAL DATA

Table with 2 columns: Property and Value. Rows include: Boiling Point (30-35%), Vapor Pressure (30-35%), Specific Vapor Density (HEAVIER THAN AIR), Specific Gravity (25.00 Deg C), Percent Volatiles (30-35%), Evaporation Rate (SLOWER THAN ETHER), Appearance (AMBER LIQUID).

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLASH POINT (PMCC) 106.0 Deg F (41.1 Deg C) EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER - 1.0% EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS: CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, SULFUR COMPOUNDS, ETC.

CONTINUED ON PAGE: 2



user modified

| | | | |
|--------------------|---------------------------------------|--------------------|-------------|
| Data File Name | : C:\HPCHEM\1\DATA\B020998\029R0101.D | Page Number | : 1 |
| Operator | : LQN | Vial Number | : 29 |
| Instrument | : DUAL2 | Injection Number | : 1 |
| Sample Name | : TECTYL | Sequence Line | : 1 |
| Run Time Bar Code: | | Instrument Method: | TPHD.MTH |
| Acquired on | : 09 Feb 98 12:26 PM | Analysis Method | : HCIDR.MTH |
| Report Created on: | 09 Feb 98 01:46 PM | Sample Amount | : 0 |
| Last Recalib on | : 06 Feb 98 05:18 PM | ISTD Amount | : |
| Multiplier | : 1 | | |



TRACY G. SMITH
Manager, Health & Safety
(606) 357-7685

March 25, 1998

Cascade General
5555 North Channel Avenue
Portland, OR 97217
Attn: Mr. Allen Sprott

Dear Mr. Sprott:

Thank you for sending the fax of the two MSDS you have in your possession for Tectyl 511 M and Tectyl 502 C.

On both MSDS an ingredient referred to as "Oxygenated Hydrocarbon" is in fact a zinc soap of oxidized petrolatum. As we discussed on the telephone oxidized petrolatum is a product that is made from petroleum distillates. Petrolatum, which is a product of petroleum distillation, is oxidized and then reacted with zinc oxide to form the zinc soap.

Most petroleum sulfonates are metal salts of sulfonic acids that were formerly natural byproducts of the sulfuric acid treatment of oil fractions in the manufacture of white oils. Currently petroleum sulfonates are more valuable than white oils and are generally produced preferentially. Petroleum sulfonates are commonly used as detergents in lubricating oils.

Tectyl 511 M contains mineral spirits, a petroleum base stock (commonly used in crankcase oils) and two glycol ethers in very low concentrations that are present to ensure an even film formation.

Tectyl 502 C does not contain the glycol ethers, but does contain unoxidized petrolatum.

These products are rust preventive coatings, leaving a soft oily film that contains corrosion inhibitors. They are not paints; the coatings do not cross-link to a hard surface and do not contain any pigmentation or mineral fillers.

I will attach copies of the current MSDS for these products. If you have any other questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Tracy G. Smith'. The signature is written in a cursive, flowing style.

Tracy G. Smith
Manager, Health and Safety

Waste/Materials Profile

761008

1. Generator

Generator Name: Cascade General Phone: _____

Address: 5555 N Channel Portland OR Fax: _____

Generating Facility Address if different: _____

Environmental Compliance Manager: Chris Tompkins EPA#: _____

Description of Waste/Material: used oil Does Waste/Material Vary? Yes No

If yes describe: Type of Process: _____ Change in Concentration of Constituents: _____

Other important information: sent analyzed to Dave Keck

2. Waste/Material Characteristics

Hazardous Waste Characteristics?

Flash < 140°F: Yes No Test method: _____ Personal Knowledge of Generator: Yes No

Corrosive: Yes No Test method: _____ Personal Knowledge of Generator: Yes No

Reactive: Yes No Test method: _____ Personal Knowledge of Generator: Yes No

Toxic: Yes No Test method: _____ Personal Knowledge of Generator: Yes No

Has Waste/Material been mixed with Hazardous Waste?: Yes No RCRA Waste#: _____

If Yes, What Kind? _____ **IMPORTANT!!! Identify ALL characteristics**

Flash Point < 140°F: Yes No Corrosive: Yes No Reactive: Yes No Toxic: Yes No

Does Waste/Material contain > 2PPM PCBs?: Yes No If Yes what is the concentration of PCBs? _____ PPM

PCB test method: _____ Personal Knowledge of Generator: Yes No

BTU content: _____ Test method: _____

Water content: _____ %, Test method: _____

Is MSDS available?: Yes No **IMPORTANT!!! ATTACH COPIES OF MSDS**

Has Sample Been Taken? Yes No Test Results: _____

Has Waste/Material been Previously Rejected?: Yes No If Yes, Explain: _____

Has Generator Signed Certification?: Yes No Other Relevant Information: _____

3. Certification

IMPORTANT!!! Attach all Test Results, MSDS Sheets, or any other Relevant Documents.

Date of Completion of Waste/Materials Profile: 5-30-96 update: _____ update: _____

Name of Person(s) Providing Profile Information: CHRIS TOMPKINS

Title of Person(s) Providing Profile Information: HAZARDOUS MATERIAL Supt.

Certification by Generator:

I hereby certify that to the best of my knowledge, all of the information provided in this document is accurate and complete. I further certify that if any information set forth in this document changes during the period of time that Fuel Processors Inc. collects Wastes or Materials from this facility, I will promptly notify Fuel Processors of the change.

Signed: X Chris Tompkins Date: 5-30-96 Title: _____

Certification by Broker/Service Provider or Independent Laboratory or Consultant:

I hereby certify that to the best of my knowledge all the information provided in this document is accurate and complete.

Signed: X Bod Mullins Date: 5-30-96 Title: _____

Is Waste/Material Acceptable for Processing?: Yes No Explanation: _____

Name of Fuel Processors, Inc. Official(s) Authorizing Acceptance or Rejection: _____

Signed: X Mat Gibson Date: _____ Title: D.O

Contractor/Broker Name: _____ Phone: _____

Load Accepted Rejected Disposition?: _____

If Rejected Reason for Refusal: _____

EXHIBIT #6

report number: 1823 report date: 8 May 96

Certificate of Analysis by Service Analytical Lab

4150 North Suttle Road, Portland, Oregon 97217
(503) ph 289-3487 fax 289-4013

Customer: Cascade General, Inc.

purchase order number: 6525

Project: waste characterization. Vessel USNS Higgins.

Customer's sample ID: TECTYL 511M, 5-2-96

SAL's sample ID: 1823-1

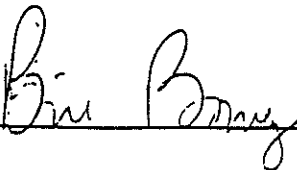
| ANALYSIS | RESULT ¹ | QUANTITATION LIMIT ² | METHOD ³ | ANALYZED |
|---------------------------|---------------------|------------------------------------|---------------------|----------|
| TCLP /Lead | nd | 1 ppm | EPA 1311/7421 | 5-7-96 |
| TCLP /Cadmium | nd | 0.5 ppm | EPA 1311/7131 | 5-7-96 |
| TCLP /Chromium | 1.2 ppm | 1 ppm | EPA 1311/7191 | 5-7-96 |
| TCLP /Arsenic | nd | 1 ppm | EPA 1311/7060 | 5-7-96 |
| TCLP /Barium | nd | 1 ppm | EPA 1311/7081 | 5-7-96 |
| TCLP /Silver | nd | 0.5 ppm | EPA 1311/7761 | 5-7-96 |
| TCLP /Mercury | nd | 0.05 ppm | EPA 1311/7470 | 5-7-96 |
| TCLP /Selenium | nd | 1 ppm | EPA 1311/7740 | 5-7-96 |
| Closed Cup Flash Point: @ | 90°F | ±5°F | EPA 1010 | 5-7-96 |

¹ nd means none detected. Parts per million (ppm) = milligrams/liter (mg/L) for aqueous samples = milligrams/kilogram (mg/kg) for non-aqueous samples.
Parts per billion (ppb) = micrograms/liter (µg/L) for aqueous samples = micrograms/kilogram (µg/kg) for non-aqueous samples.

² Results greater than or equal to the [Practical] Quantitation Limits are identified and quantified.

³ EPA citation: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Final Update."

Reviewed by



Bill Bowey, Technical Director

report number: 1823 report date: 8 May 96

Certificate of Analysis by Service Analytical Lab

4150 North Suttle Road, Portland, Oregon 97217

(503) ph 289-3487 fax 289-4013

Customer: Cascade General, Inc.

purchase order number: 6525

Project: waste characterization. Vessel USNS Higgins.

Customer's sample ID: TECTYL 502C, 5-2-96

SAL's sample ID: 1823-2

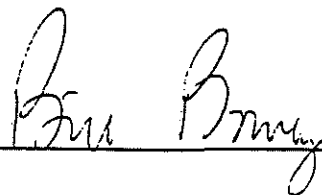
| ANALYSIS | RESULT ¹ | QUANTITATION LIMIT ² | METHOD ³ | ANALYZED |
|---------------------------|---------------------|------------------------------------|---------------------|----------|
| TCLP /Lead | 1.1 ppm | 1 ppm | EPA 1311/7421 | 5-7-96 |
| TCLP /Cadmium | nd | 0.5 ppm | EPA 1311/7131 | 5-7-96 |
| TCLP /Chromium | 3.7 ppm | 1 ppm | EPA 1311/7191 | 5-7-96 |
| TCLP /Arsenic | nd | 1 ppm | EPA 1311/7060 | 5-7-96 |
| TCLP /Barium | 9.2 ppm | 1 ppm | EPA 1311/7081 | 5-7-96 |
| TCLP /Silver | nd | 0.5 ppm | EPA 1311/7761 | 5-7-96 |
| TCLP /Mercury | nd | 0.05 ppm | EPA 1311/7470 | 5-7-96 |
| TCLP /Selenium | nd | 1-ppm | EPA 1311/7740 | 5-7-96 |
| Closed Cup Flash Point: @ | 85°F | ±5°F | EPA 1010 | 5-7-96 |

¹ nd means none detected. Parts per million (ppm) = milligrams/liter (mg/L) for aqueous samples = milligrams/kilogram (mg/kg) for non-aqueous samples.
Parts per billion (ppb) = micrograms/liter (µg/L) for aqueous samples = micrograms/kilogram (µg/kg) for non-aqueous samples.

² Results greater than or equal to the [Practical] Quantitation Limits are identified and quantified.

³ EPA citation: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Final Update."

Reviewed by



Bill Bowey, Technical Director



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Kent Patton Vice President / Technical Director

Expertise

Technical Director

Mr. Patton has over ten years of analytical laboratory experience. His focus is managing the technical development of North Creek Analytical's Portland facility and mobile/on-site facilities. He has served as bench chemist, supervisor, and laboratory manager, establishing a strong basis for his technical guidance role. Mr. Patton has spent thousand of field hours supporting mobile and remote laboratory projects since 1988. He has planned, designed, installed, operated and successfully completed testing programs in Alaska, California, Idaho, Montana, Oregon and Washington for, USACOL, Oil companies, utilities and commercial clientele. 1997 conducted Air testing in Shanghai, CHINA

Mr. Patton has expertise in forensic fuels analysis. Major clients include Chevron, Shell, Texaco, Arco, Truax and British Petroleum Exploration Alaska. Services include fuel identification, age determination, product source and determination of biogenic interference.

Education Training

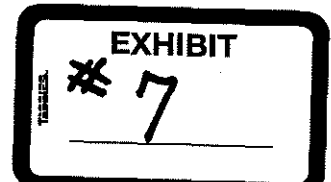
M.S., Environmental Management
University of San Francisco, 1994
B.S., Biology
Colorado College, 1985
Certified Hazardous Materials Manager
Field Test Procedures Training - EPA Region I
EPA SW-846 Methods Training - USEPA - Barry Lesnick
OSHA 40 Hr. Health and Safety Training
Hydrocarbon Pattern Recognition and Dating - Univ. of Wisconsin 1997
Courses in GC/HPLC/GC-MS operations, maintenance and operating systems - Hewlett Packard, Varian and Perkin Elmer.

Professional Affiliations

American Chemical Society-Division of Petroleum Chemistry
CHMM - Certified Hazardous Materials Manager
Oregon Association of Environmental Professionals
Northwest Environmental Business Council

Experience

- Evaluates and develops analytical schemes to match specific program objectives.
- Designs and facilitates the remote laboratory installation and operations.
- Interprets hydrocarbon data for forensic fuels analyses.
- Provides guidance for methods development in the fixed and deployed laboratories.
- Prepares and reviews validatable and electronic deliverables.



THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: TECTYL 502 C

DATA SHEET NO: 0001457-009.006
PREPARED: 02/10/95
SUPERSEDES: 02/03/95
PRINT DATE: 02/10/95

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II-COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.
IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE
REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS
SECTION.

SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | PERCENT | NOTE |
|--|-----------------------|-------|
| OXYGENATED HYDROCARBON | 25-30 | (1) |
| SODIUM PETROLEUM SULFONATE CAS #: 68608-26-4 | 10-15 | (2) |
| ALIPHATIC HYDROCARBONS (STODDARD TYPE) CAS #: 8052-41-3 PEL: 100 PPM | 30-35 TLV: 100 PPM | (3) |
| PETROLEUM DISTILLATE CAS #: 64742-52-5 PEL: 5 MG/M3 | 10-15 TLV: 5 MG/M3 | (4) |

- (1): THIS PRODUCT CONTAINS A MAXIMUM OF 100% ZINC COMPOUNDS. ZINC COMPOUNDS ARE REPORTABLE UNDER SECTION 313 OF SARATITLE III.
PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
- (2): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

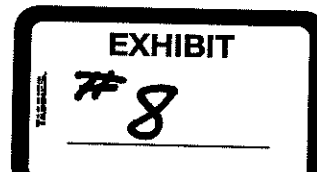
CONTINUED ON PAGE: 2
TECTYL 502 C

PAGE: 2

SECTION II-COMPONENTS (CONTINUED)

THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS.

- (3): NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1800 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.
- (4): PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CUM.



 SECTION III-PHYSICAL DATA

| PROPERTY | REFINEMENT | MEASUREMENT |
|------------------------|---------------------------|--|
| BOILING POINT | FOR COMPONENT (30-35%)XX | 315.00 DEG F (157.22 DEG C) @ 760.00 MMHG |
| VAPOR PRESSURE | FOR COMPONENT (30-35%) | 2.00 MMHG @ 68.00 DEG F (20.00 DEG C) |
| SPECIFIC VAPOR DENSITY | AIR = 1 | .00 |
| SPECIFIC GRAVITY | | .870 @ 77.00 DEG F (25.00 DEG C) |
| PERCENT VOLATILES | | |
| EVAPORATION RATE | | SLOWER THAN ETHER |

 SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(PMCC) 106.0 DEG F
 (41.1 DEG C)
 EXPLOSIVE LIMIT(LOWEST VALUE OF COMPONENT)LOWER - 1.0%
 EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

CONTINUED ON PAGE: 3
 TECTYL 502 C

PAGE: 3

 SECTION IV-FIRE AND EXPLOSION INFORMATION (CONTINUED)

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM: , CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, SULFUR COMPOUNDS, ETC.
 FIREFIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER.
 WEAR A SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WITH APPROPRIATE TURN-OUT GEAR AND CHEMICAL RESISTANT PERSONAL PROTECTIVE EQUIPMENT. REFER TO THE PERSONAL PROTECTIVE EQUIPMENT SECTION OF THIS MSDS.
 SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.
 NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
 ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.
 NFPA CODES: HEALTH- 1 FLAMMABILITY- 2 REACTIVITY- 0

 SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.
 EFFECTS OF ACUTE OVEREXPOSURE:

EYES - EXPOSURE CAUSES EYE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, AND SWELLING.
 SKIN - EXPOSURE CAUSES SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY

546

DRY THE SKIN. SYMPTOMS MAY INCLUDE REDNESS, BURNING, DRYING AND CRACKING, SKIN BURNS AND SKIN DAMAGE. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

ADDITIONAL SYMPTOMS OF SKIN CONTACT MAY INCLUDE:

-ALLERGIC SKIN REACTION-

BREATHING - EXPOSURE TO VAPOR OR MIST IS POSSIBLE.

SHORT-TERM INHALATION TOXICITY IS LOW. BREATHING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; BREATHING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

-IRRITATION (NOSE, THROAT, RESPIRATORY TRACT) - PRE-EXISTING LUNG DISORDERS, E.G. ASTHMA-LIKE CONDITIONS, MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

-CENTRAL NERVOUS SYSTEM DEPRESSION (DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, UNCONSCIOUSNESS) -

CONTINUED ON PAGE: 4
TECTYL 502 C

PAGE: 4

SECTION V-HEALTH HAZARD DATA (CONTINUED)

-AND DEATH

SWALLOWING - SINGLE DOSE ORAL TOXICITY IS LOW. SWALLOWING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.

SYMPTOMS MAY INCLUDE:

-GASTROINTESTINAL IRRITATION (NAUSEA, VOMITING, DIARRHEA) -

THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND/OR DAMAGE.

FIRST AID:

-
- IF ON SKIN: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE REUSE.
 - IF IN EYES: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES GENTLY WITH WATER WHILE HOLDING EYELIDS APART. IF SYMPTOMS PERSIST OR THERE IS ANY VISUAL DIFFICULTY, SEEK MEDICAL ATTENTION.
 - IF SWALLOWED: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION HAZARD. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, PLACE ON LEFT SIDE WITH THE HEAD DOWN. SEEK MEDICAL ATTENTION. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.
 - IF BREATHED: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. SEEK IMMEDIATE MEDICAL ATTENTION; KEEP PERSON WARM AND QUIET. IF PERSON IS NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION
SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE:

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS: , CENTRAL NERVOUS SYSTEM EFFECTS

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SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR
STABILITY: STABLE
INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS, SEWERS, STREAMS OR OTHER BODIES OF WATER. PREVENT FROM SPREADING. IF RUNOFF OCCURS, NOTIFY AUTHORITIES AS REQUIRED. PUMP OR VACUUM TRANSFER SPILLED PRODUCT TO CLEAN CONTAINERS FOR RECOVERY. ABSORB UNRECOVERABLE PRODUCT. TRANSFER CONTAMINATED ABSORBENT, SOIL AND OTHER MATERIALS TO CONTAINERS FOR DISPOSAL.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED (CONTINUED)

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR INDUSTRIAL HYGIENIST). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NEOPRENE, NITRILE RUBBER
EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY

GLASSES. CONSULT YOUR SAFETY REPRESENTATIVE.
OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED. THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

SECTION X-LABEL INFORMATION

CAUTION!

COMBUSTIBLE LIQUID AND VAPOR
MAY CAUSE EYE AND SKIN IRRITATION.
INHALATION OF VAPOR MAY CAUSE IRRITATION OF NASAL AND RESPIRATORY PASSAGES.
SWALLOWING MAY CAUSE IRRITATION OF MOUTH, ESOPHAGUS, AND GASTROINTESTINAL SYSTEM AND MAY BE FATAL.

HANDLING & STORAGE:

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SECTION X-LABEL INFORMATION (CONTINUED)

KEEP AWAY FROM HEAT AND OPEN FLAME.
USE OR STORE ONLY WITH ADEQUATE VENTILATION.
MAINTAIN AMBIENT AIR CONCENTRATION(S) BELOW PERMISSIBLE EXPOSURE LIMITS.
AVOID CONTACT WITH EYES AND PROLONGED OR REPEATED CONTACT WITH SKIN.
WEAR SAFETY GLASSES OR GOGGLES, RESISTANT GLOVES, AND OTHER APPROPRIATE PROTECTIVE EQUIPMENT ESSENTIAL FOR YOUR OPERATION.
MINIMIZE EXPOSURE THROUGH GOOD HYGIENIC PRACTICES.
DO NOT TRANSFER TO UNLABELED CONTAINER.
DO NOT USE CUTTING OR WELDING TORCH ON THIS CONTAINER (EVEN EMPTY).
FOR INDUSTRIAL USE ONLY.

FIRST AID:

EYES: FLUSH THOROUGHLY WITH WATER. GET MEDICAL ATTENTION IMMEDIATELY.
SKIN: WASH THOROUGHLY WITH SOAP AND WATER.
INHALATION: IF AFFECTED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION.
INGESTION: DO NOT INDUCE VOMITING. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY.
ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.
NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

CHRONIC INFORMATION:

CONTAINS: PETROLEUM DISTILLATES.
CONTAINS MATERIAL(S) WHICH MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.
*** COMPONENTS APPEAR IN SECTION II ***

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: TECTYL 511 M, CLASS I

DATA SHEET NO: 0001459-012.005

PREPARED: 02/10/95

SUPERSEDES: 02/03/95

PRINT DATE: 02/10/95

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: PETROLEUM BASED RUST PREVENTATIVE

SECTION II-COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.
IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE
REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS
SECTION.

SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | PERCENT | NOTE |
|--|-----------------------|-------|
| OXYGENATED HYDROCARBON | 10-15 | (1) |
| SODIUM PETROLEUM SULFONATE CAS #: 68608-26-4 | 1-10 | (2) |
| ALIPHATIC HYDROCARBONS (STODDARD TYPE) CAS #: 8052-41-3 PEL: 100 PPM | 45-50 TLV: 100 PPM | (3) |
| PETROLEUM LUBE OIL CAS #: 64742-65-0 PEL: 5 MG/M3 | 25-30 TLV: 5 MG/M3 | (4) |
| ETHYLENE GLYCOL MONOPROPYL ETHER CAS #: 2807-30-9 | 1-5 | (5) |
| PROPYLENE GLYCOL MONOPROPYL ETHER CAS #: 1569-01-3 | 1-5 | (6) |

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SECTION II-COMPONENTS (CONTINUED)

- (1): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
THIS PRODUCT CONTAINS A MAXIMUM OF 100% ZINC COMPOUNDS. ZINC COMPOUNDS ARE
REPORTABLE UNDER SECTION 313 OF SARATITLE III.
- (2): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
THIS PROPRIETARY MATERIAL CONTAINS A METAL SULFONATE. RECENT INFORMATION

INDICATES THAT SUCH SULFONATES HAVE THE POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS.

- (3): NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1800 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.
- (4): PEL/TLV IS FOR OIL MIST. ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR OIL MIST IS 10 MG/CUM.
- (5): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL
SUPPLIER RECOMMENDS A WORKPLACE EXPOSURE LIMIT OF 25 PPM-TWA, "SKIN NOTATION".
THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.
- (6): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

SECTION III-PHYSICAL DATA

| PROPERTY | REFINEMENT | MEASUREMENT |
|------------------------|---------------------------|--|
| BOILING POINT | FOR COMPONENT (45-50%)XX | 315.00 DEG F (157.22 DEG C) @ 760.00 MMHG |
| VAPOR PRESSURE | FOR COMPONENT (45-50%) | 2.00 MMHG @ 68.00 DEG F (20.00 DEG C) |
| SPECIFIC VAPOR DENSITY | | HEAVIER THAN AIR |
| SPECIFIC GRAVITY | | .841 @ 77.00 DEG F (25.00 DEG C) |

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SECTION III-PHYSICAL DATA (CONTINUED)

| PROPERTY | REFINEMENT | MEASUREMENT |
|-------------------|------------|-------------------|
| PERCENT VOLATILES | | 50-55% |
| EVAPORATION RATE | | SLOWER THAN ETHER |
| APPEARANCE | | AMBER |
| STATE | | LIQUID |

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(PMCC) 106.0 DEG F
(41.1 DEG C)

EXPLOSIVE LIMIT(LOWEST VALUE OF COMPONENT) LOWER - 1.0%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM: , CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR A SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WITH APPROPRIATE TURN-OUT GEAR AND CHEMICAL RESISTANT PERSONAL PROTECTIVE EQUIPMENT. REFER TO THE PERSONAL PROTECTIVE EQUIPMENT SECTION OF THIS MSDS. WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER.

SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.
ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.
NFPA CODES: HEALTH- 1 FLAMMABILITY- 2 REACTIVITY- 0

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SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.
EFFECTS OF ACUTE OVEREXPOSURE:

EYES - EXPOSURE CAUSES EYE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, AND SWELLING.
SKIN - EXPOSURE CAUSES SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY DRY THE SKIN. SYMPTOMS MAY INCLUDE REDNESS, BURNING, DRYING AND CRACKING, SKIN BURNS AND SKIN DAMAGE. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.
SKIN ABSORPTION IS POSSIBLE, AND MAY CONTRIBUTE TO SYMPTOMS OF TOXICITY FROM OTHER ROUTES OF EXPOSURE.
ADDITIONAL SYMPTOMS OF SKIN CONTACT MAY INCLUDE:
-ALLERGIC SKIN REACTION-
BREATHING - EXPOSURE TO VAPOR OR MIST IS POSSIBLE.
SHORT-TERM INHALATION TOXICITY IS LOW. BREATHING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; BREATHING LARGE AMOUNTS MAY BE HARMFUL.
SYMPTOMS MAY INCLUDE:
-IRRITATION (NOSE, THROAT, RESPIRATORY TRACT) - PRE-EXISTING LUNG DISORDERS, E.G. ASTHMA-LIKE CONDITIONS, MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.
-CENTRAL NERVOUS SYSTEM DEPRESSION (DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, UNCONSCIOUSNESS) -
-AND DEATH
SWALLOWING - SINGLE DOSE ORAL TOXICITY IS LOW. SWALLOWING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.
SYMPTOMS MAY INCLUDE:
-GASTROINTESTINAL IRRITATION (NAUSEA, VOMITING, DIARRHEA) -
THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND/OR DAMAGE.

FIRST AID:

IF ON SKIN: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. LAUNDRY CLOTHING BEFORE REUSE.
IF IN EYES: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES GENTLY WITH WATER WHILE HOLDING EYELIDS APART. IF SYMPTOMS PERSIST OR THERE IS ANY VISUAL DIFFICULTY, SEEK MEDICAL ATTENTION.
IF SWALLOWED: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION HAZARD. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, PLACE ON LEFT SIDE WITH THE HEAD DOWN. SEEK MEDICAL ATTENTION. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL

SECTION V-HEALTH HAZARD DATA (CONTINUED)

UNATTENDED.

IF BREATHED: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. SEEK IMMEDIATE MEDICAL ATTENTION; KEEP PERSON WARM AND QUIET. IF PERSON IS NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION
SKIN CONTACT
SKIN ABSORPTION

EFFECTS OF CHRONIC OVEREXPOSURE:

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN LABORATORY ANIMALS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS IN HUMANS: ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE, LUNG DAMAGE, BLOOD ABNORMALITIES, TESTIS DAMAGE, SPLEEN DAMAGE

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS: CENTRAL NERVOUS SYSTEM EFFECTS

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH: STRONG OXIDIZING AGENTS

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL.

SECTION VII-SPILL OR LEAK PROCEDURES (CONTINUED)

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS, SEWERS, STREAMS OR OTHER BODIES OF WATER. PREVENT FROM SPREADING. IF RUNOFF OCCURS, NOTIFY AUTHORITIES AS REQUIRED. PUMP OR VACUUM TRANSFER SPILLED PRODUCT TO CLEAN CONTAINERS FOR RECOVERY. ABSORB UNRECOVERABLE PRODUCT. TRANSFER CONTAMINATED ABSORBENT, SOIL AND OTHER MATERIALS TO CONTAINERS FOR DISPOSAL.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR INDUSTRIAL HYGIENIST). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS: NEOPRENE, NITRILE RUBBER
EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. CONSULT YOUR SAFETY REPRESENTATIVE.

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

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TECTYL 511 M, CLASS I

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SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

SECTION X-LABEL INFORMATION

WARNING!

COMBUSTIBLE LIQUID AND VAPOR

MAY CAUSE EYE AND SKIN IRRITATION.

INHALATION OF VAPOR MAY CAUSE IRRITATION OF NASAL AND RESPIRATORY PASSAGES.

SWALLOWING MAY CAUSE IRRITATION OF MOUTH, ESOPHAGUS, AND GASTROINTESTINAL SYSTEM AND MAY BE FATAL.

COMPONENT(S) MAY BE ABSORBED THROUGH SKIN IN TOXIC AMOUNTS.

HANDLING & STORAGE:

MAINTAIN AMBIENT AIR CONCENTRATION(S) OF VOLATILE COMPONENT(S) BELOW PERMISSIBLE EXPOSURE LIMITS.

WEAR SAFETY GLASSES OR GOGGLES, RESISTANT GLOVES, AND OTHER APPROPRIATE PROTECTIVE EQUIPMENT ESSENTIAL FOR YOUR OPERATION.

DO NOT TRANSFER TO UNLABELED CONTAINER.

USE OR STORE ONLY WITH ADEQUATE VENTILATION.

DO NOT USE CUTTING OR WELDING TORCH ON THIS CONTAINER (EVEN EMPTY).

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

MINIMIZE EXPOSURE THROUGH GOOD HYGIENIC PRACTICES.

SKIN: IMMEDIATELY FLUSH WITH WATER. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION.
WASH THOROUGHLY WITH SOAP AND WATER.
INHALATION: IF AFFECTED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION.
INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSES OF WATER AND GET MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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SECTION X-LABEL INFORMATION (CONTINUED)

ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

CHRONIC INFORMATION:

CONTAINS: PETROLEUM DISTILLATES, ETHYLENE GLYCOL MONOPROPYLETHER (EGMPE) AND PROPYLENE GLYCOL MONOPROPYL ETHER (PGMPE).
CONTAINS MATERIAL(S) WHICH MAY CAUSE BLOOD ABNORMALITIES, CENTRAL NERVOUS SYSTEM DEPRESSION, RESPIRATORY SYSTEM, EYE, KIDNEY AND/OR LIVER DAMAGE.
*** COMPONENTS APPEAR IN SECTION II ***

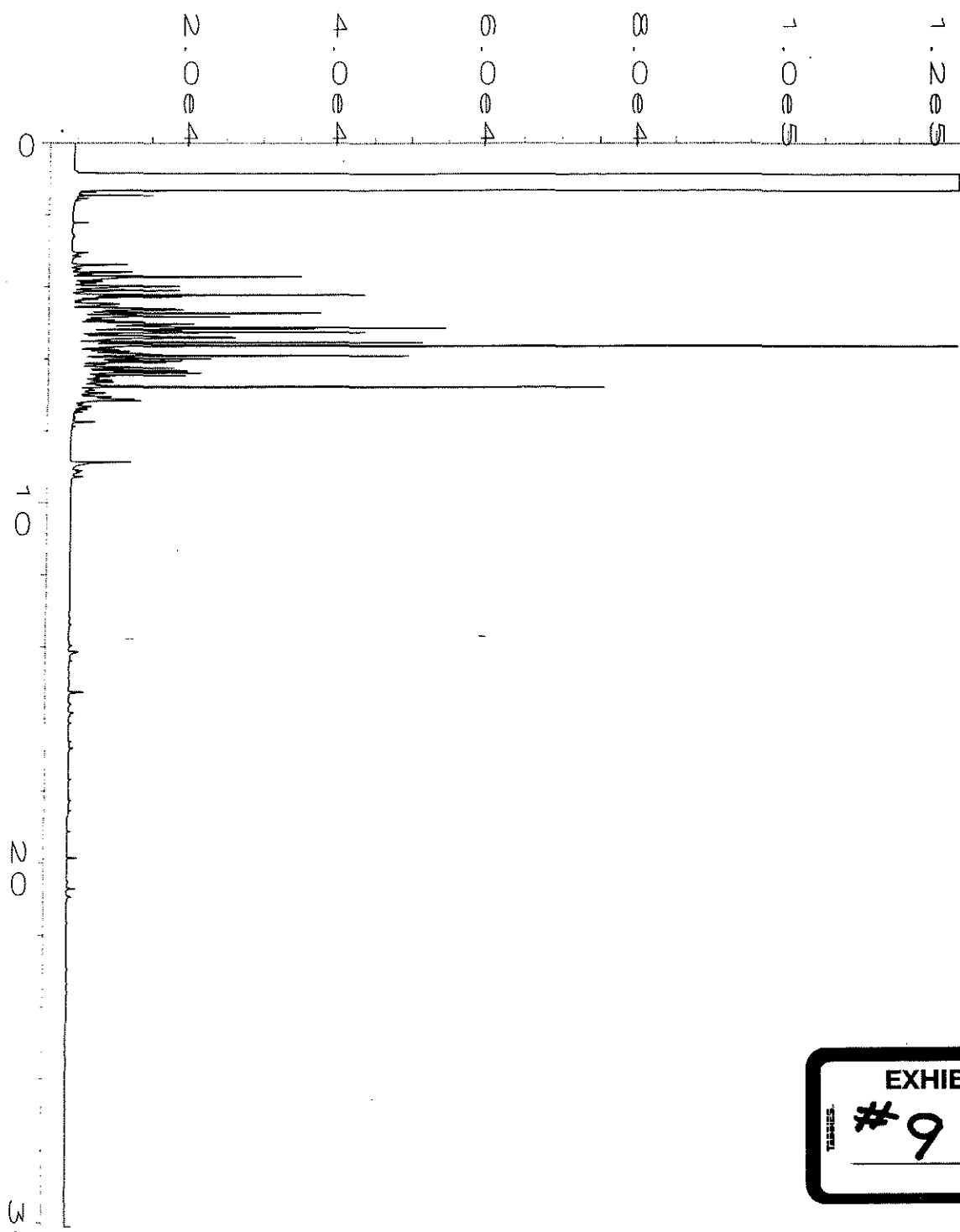


EXHIBIT
#9

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| Run Time Bar Code: | | Instrument Method: | NWTPHD.MTH |
| Acquired on | : 18 Jan 99 03:38 PM | Analysis Method | : DEFAULT.MTH |
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50

=====
 External Standard Report
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 Instrument : DUALFID1 Vial Number : 4
 Sample Name : conco pro 730ppm Injection Number : 1
 Run Time Bar Code: Sequence Line : 2
 Acquired on : 18 Jan 99 03:38 PM Instrument Method: NWTPHD.MTH
 Report Created on: 18 Jan 99 04:20 PM Analysis Method : NWTPHD.MTH
 Last Recalib on : 14 JAN 99 12:36 PM Sample Amount : 0
 Multiplier : 1 ISTD Amount :

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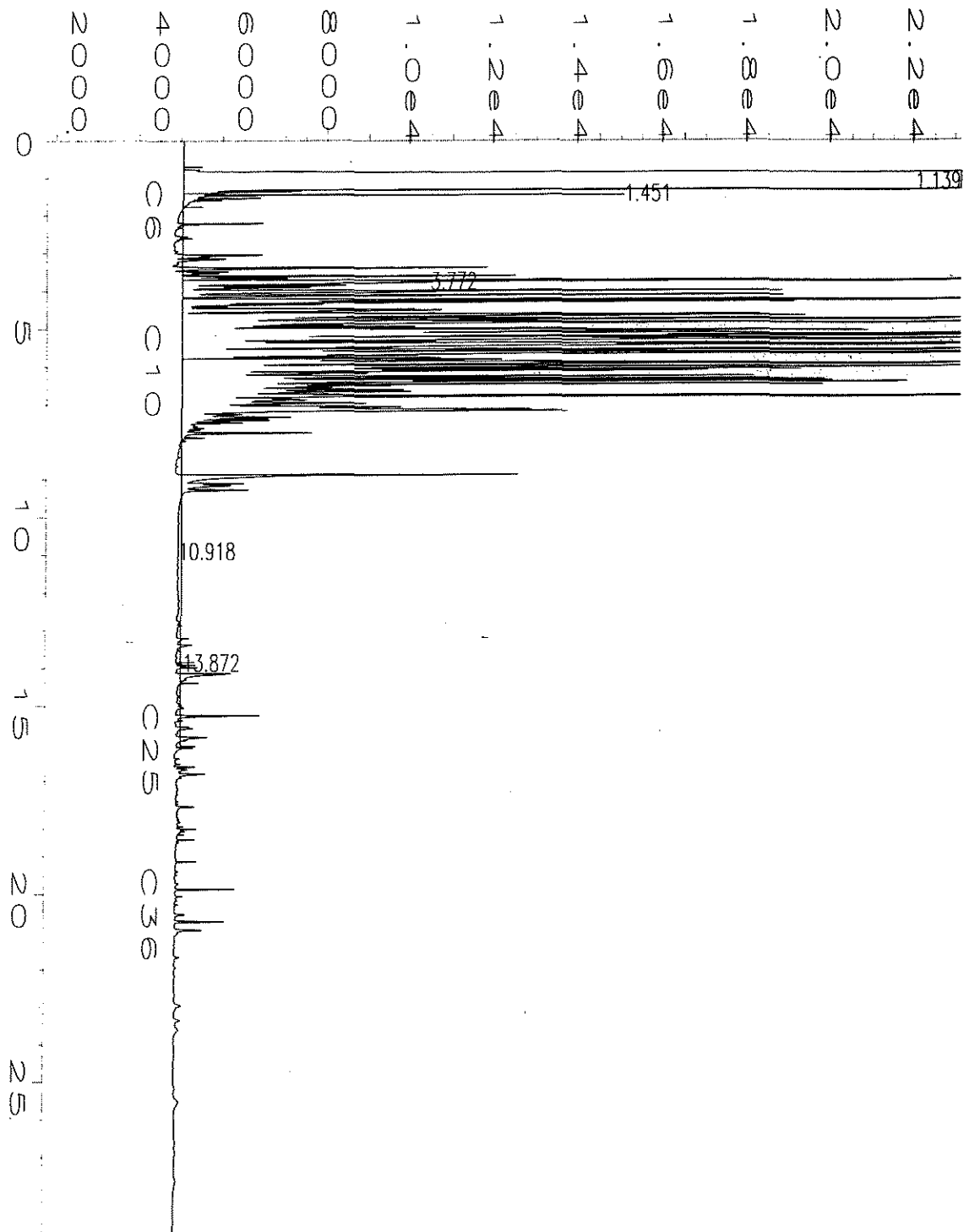
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| 13.077 | * not found * | | | 1 | | Total Heavy Oil |
| 13.872 | 216 | MM T | 0.025 | 1 | -0.0244 | 1-Chlorooctadecane |
| 18.215 | * not found * | | | 1 | | C25-C36 |
| 18.779 | * not found * | | | 1 | | triacontane |

Calibration table contains at least one peak with amt = 0

Not all calibrated peaks were found

User Modified

=====



User Modified

| | | | |
|--------------------|---------------------------------------|--------------------|--------------|
| Data File Name | : C:\HPCHEM\1\DATA\A011899\004F0201.D | Page Number | : 1 |
| Operator | : bwj | Vial Number | : 4 |
| Instrument | : DUALFID1 | Injection Number | : 1 |
| Sample Name | : conco pro 730ppm | Sequence Line | : 2 |
| Run Time Bar Code: | | Instrument Method: | NWTPHD.MTH |
| Acquired on | : 18 Jan 99 03:38 PM | Analysis Method | : NWTPHD.MTH |
| Report Created on: | 18 Jan 99 04:20 PM | Sample Amount | : 0 |
| Last Recalib on | : 14 JAN 99 12:36 PM | ISTD Amount | : |
| Multiplier | : 1 | | |

5/2/99

Tectyl 511m Oil

Ex. 17

5.0e4

3.0e4

1.0e4

C9-C13 Aliphatics

Heavy Oil C18-C36

5

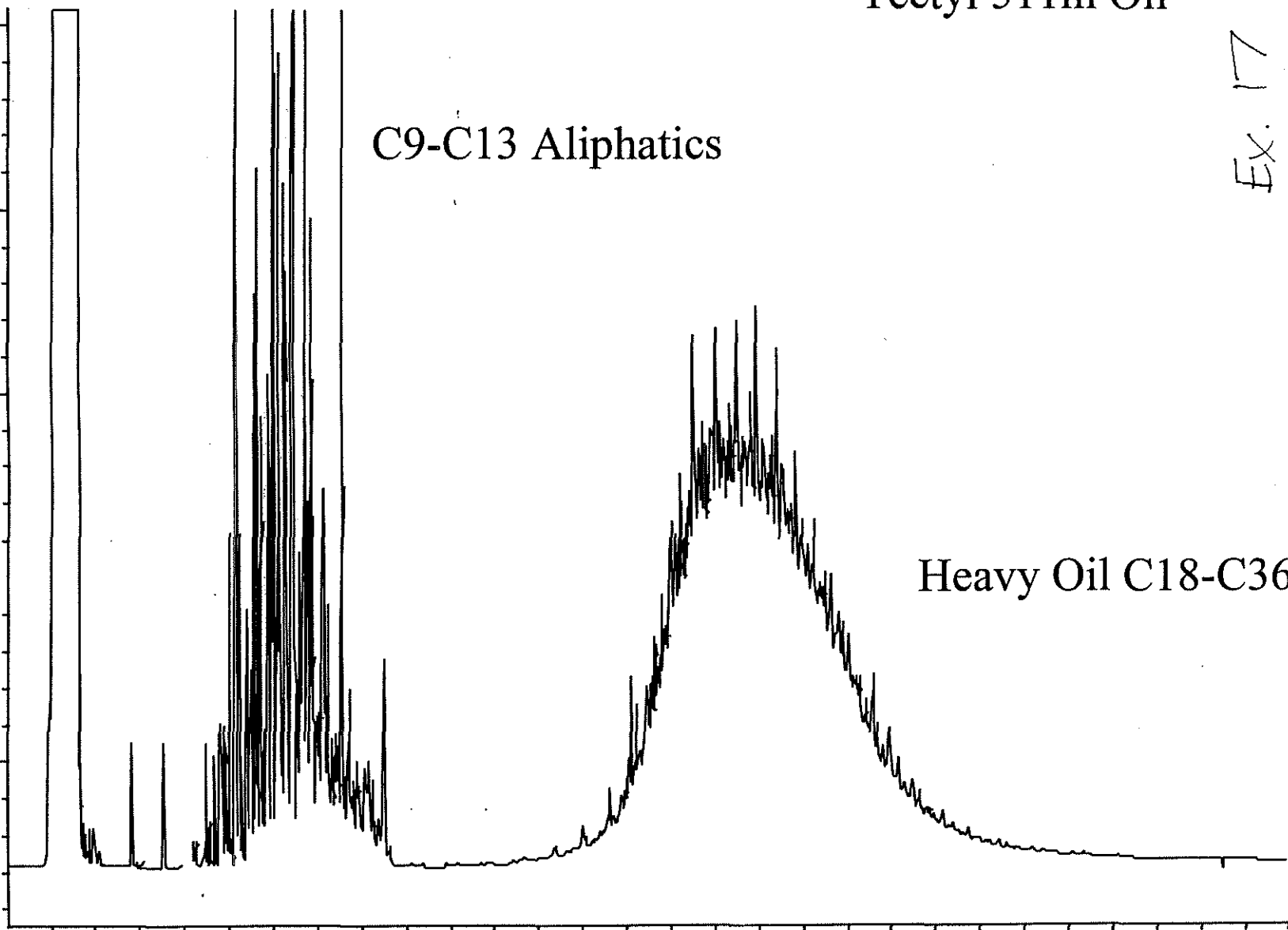
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Time (min.)



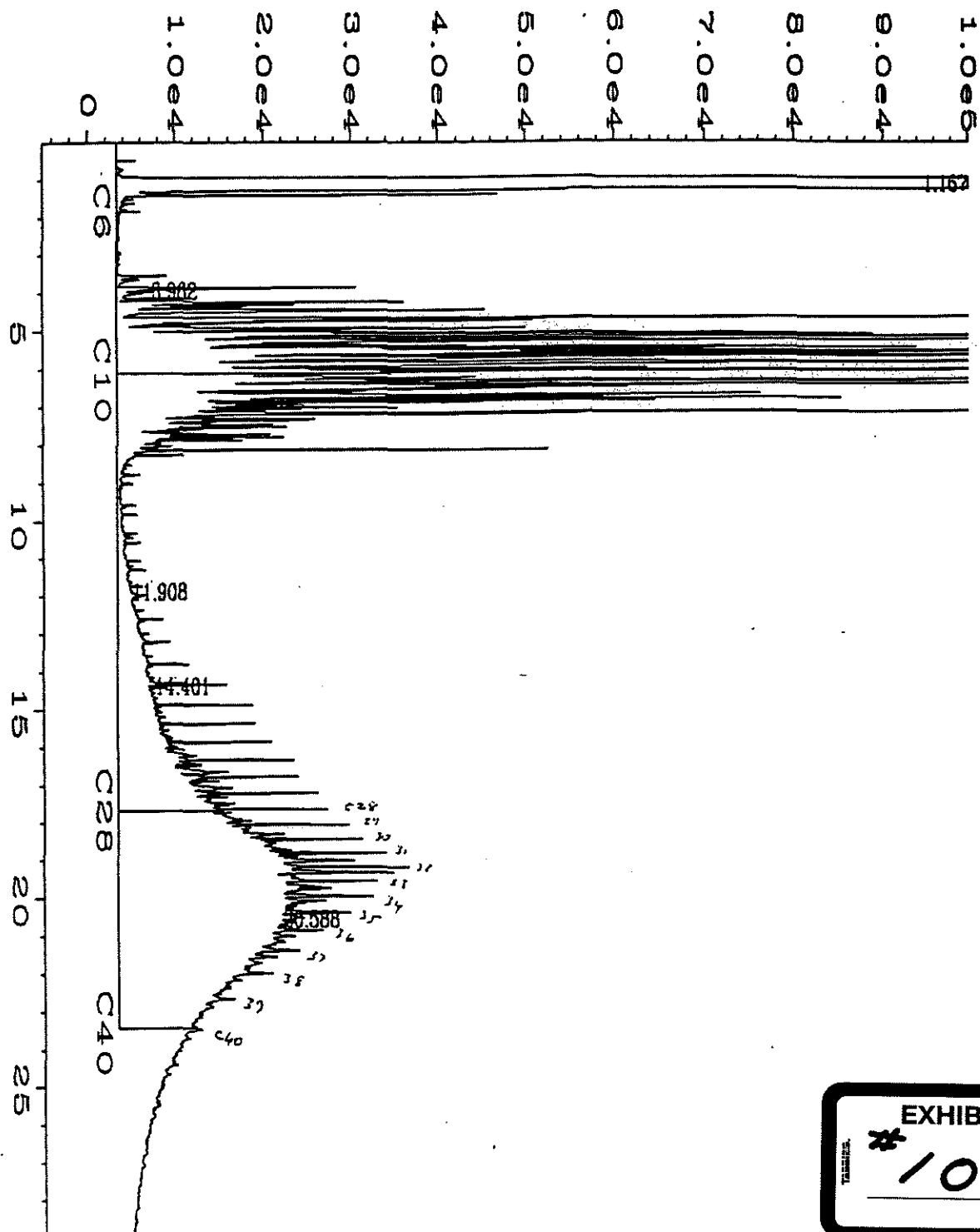
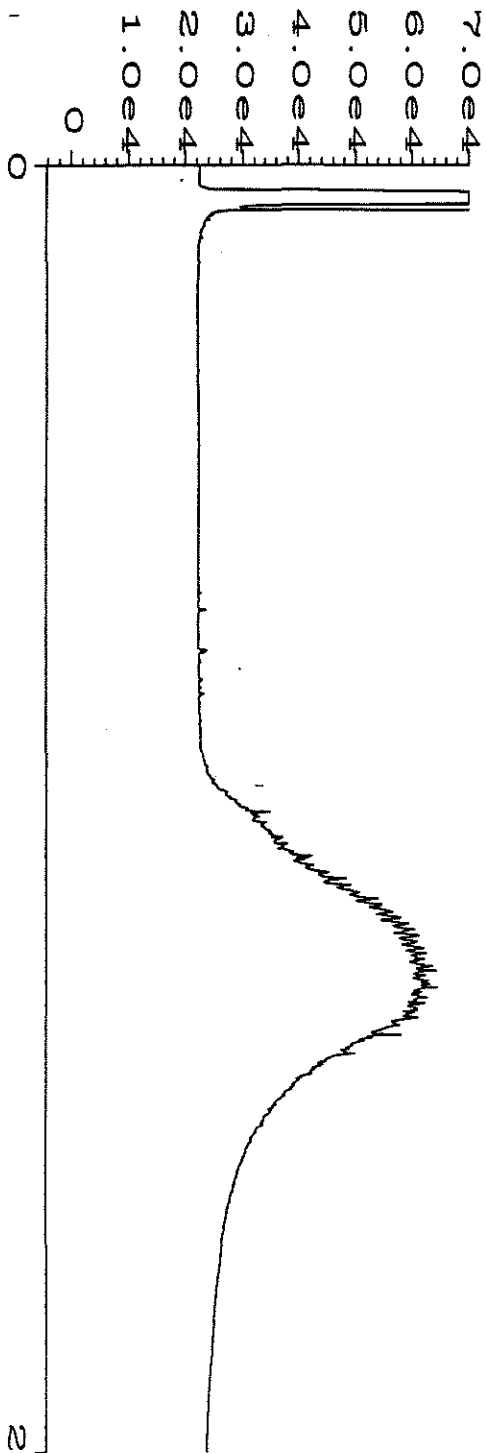
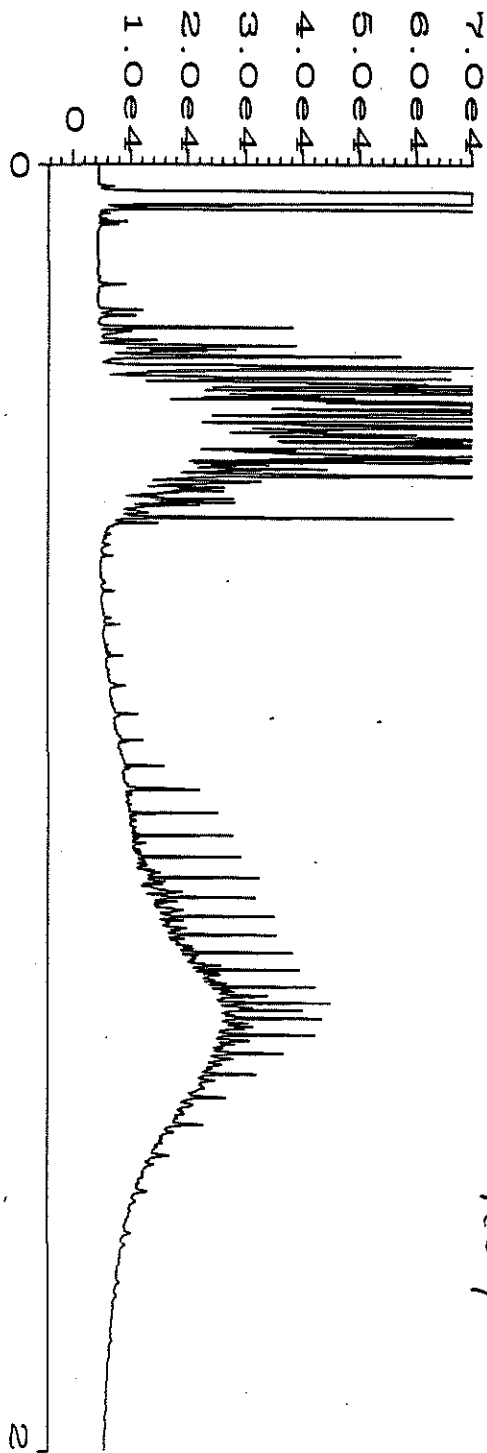


EXHIBIT
10

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| operator | : LQN | Vial Number | : 29 |
| nstrument | : DUAL2 | Injection Number | : 1 |
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| un Time Bar Code: | | Instrument Method: | TPHD.MTH |
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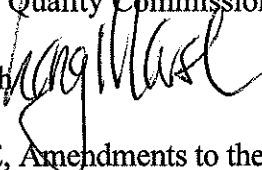
State of Oregon

Department of Environmental Quality

Memorandum

Date: November 1, 1999

To: Environmental Quality Commission

From: Langdon Marsh 

Subject: Agenda Item E, Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions. EQC Meeting November 19, 1999

Background

On September 15, 1999 the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rules which would raise fees for on-site sewage disposal activities.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on October 1, 1999. The Hearing Notice and informational materials were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on September 18, 24 and 30, 1999.

Public Hearings were held October 18, in Bend and October 19, 1999 in Portland, with Dennis Illingworth serving as Presiding Officer. Written comment was received through October 29th, 1999. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing and lists all the written comments received. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment D) and are not recommending modifications to the proposed rules.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317 (voice)/(503) 229-6993 (TDD).

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Issue this Proposed Rulemaking Action is Intended to Address

The DEQ regulates on-site sewage treatment and disposal activities throughout Oregon, and performs program-related field services in 14 counties. In the other 22 counties, many program responsibilities have been delegated (through inter-governmental agreements) to local units of government.

Periodically it is necessary to update rules to reflect current technology and practices, revise terminology and bring existing fee schedules up to date to reflect inflation, present work requirements and associated costs. The disconnection of county fees from the DEQ fee schedule in the proposed package is necessary due to statutory amendments.

The on-site program is entirely supported by fees; there are no federal or state general fund dollars. Funding to cover the DEQ's cost to implement all aspects of the program comes from application fees, surcharge fees, and sewage disposal service license fees. In 1994 the Department did an extensive workload analysis of the on-site program. A revised fee schedule was adopted by the EQC in response to this analysis in 1994.

During the 1995 legislative session the fee increases were rolled back by action of the legislative assembly. In 1997 the EQC adopted a revised fee schedule that formally implemented the 1995 legislative reductions. Based on a review and analysis of program costs and estimates of future activities, present fee revenue is not covering the cost of providing a minimum level of program services. Four full time positions around the state were cut from the program in 1998-99, resulting in a decrease in service delivery for site evaluations, variance and report review requests, complaints and technical assistance to counties.

The Department related these concerns to the 1999 legislature while explaining the funding of the on-site program, the need for the necessary resources and the Department's efforts at efficiency improvements. The legislature approved the Department's request for additional resources in the program with the understanding that doing so would result in the following:

- fees would be increased and
- implementation of process improvements would begin.

The program has a list of priorities that will assist in efficiency and improved service to the public, (Attachment G). The program is in the preliminary steps of implementing these improvements. For instance, this rule package contains provisions allowing for a lower annual fee for holding tank owners, while relying on self certification; the fee for sand filter permits, while increasing, is not

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increasing in the same proportion as otherwise, based on present construction techniques and the resulting decreasing need for as many field inspections. Further, due to statutory changes in ORS 454 requested by the Department and approved by the 1999 legislature, on-site program staff are beginning to deliberate, among many other items; **

- lengthening the time period for licensing installers and pumpers and
- providing for education and certification of licensees to allow for delivery of some services by the licensee in lieu of DEQ.

In addition to fees, the other proposed rule amendments will update terminology used in the on-site program, improve protection of groundwater and delay implementation of examination of installers to allow for review of the objectives.

Relationship to Federal and Adjacent State Rules

DEQ is accountable for the operation of the on-site Sewage Disposal Program. There is no direct relationship to federal rules. An indirect relationship exists with the Coastal Zone Management Act, the Safe Drinking Water Act, and the underground injection control (UIC) rules written to implement portions of the Clean Water Act. These federal regulations are concerned with non-point pollution, groundwater and surface water protection. The proposed onsite rules provide increased protection to groundwater by clarifying that drainfield trenches following sand filters shall not be placed within temporary groundwater. There is no obligation for coordination of Oregon's on-site fee levels or other on-site rules with adjacent states.

Authority to Address the Issue

The statutory authority to address this issue is ORS 454.745

Process for Development of the Rulemaking Proposal (including Advisory Committee and Alternatives considered)

The proposed fee schedule was developed from the 1994 workload analysis indicating time needed to process applications, staffing levels, field services data concerning past applications received and budget needs. These rule amendments including the fee schedule were developed with input from the Department's Rule Advisory Committee (members are listed in Attachment F).

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Alternatives and projected service adjustments were also discussed with the Advisory Committee. The committee expressed consensus and support for the DEQ to develop a fee schedule that would fund acceptable minimum program service delivery levels along with compliance and enforcement activities that are currently underfunded. Other proposed rule amendment language is essentially as recommended by the Advisory Committee.

Fee proposals are also presented to the Department of Administrative Services (DAS) for their review. DAS has approved this request.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

The proposed fee schedule that went out for public review used the EQC adopted April 1995 fees as a base, added inflation through the year 2000 and includes an adjustment for the recent statewide salary and benefits contract. Since the on-site program is fee supported, it cannot rely on general funds to make up the difference in expenses associated with this contract. Individual adjustments were then made as recommended by the Rules Advisory Committee. These individual adjustments are noted below.

- The license fee for sewage disposal businesses. The Department's Rule Advisory Committee recommended that this fee be increased to reflect inflation and to support additional compliance efforts and streamlining of the licensing process. The committee intended for the license fee increases to provide for compliance relating to sewage disposal service activities, whether or not they were performed by license holders. The Department agrees with the committee. This increase in the license fees will be funding new positions focusing on illegal installations of systems, improper pumping and disposal of septage and other liquid wastes and the use of materials not approved that could create damage to a system in the long term.
- The fee for the second lot evaluation when more than one lot is requested to be evaluated. The Rules Advisory Committee concurred with Department staff that time saved when doing other lot evaluations at the time of the initial lot is not significant enough to warrant a reduced fee for the additional lots.
- The addition of an innovative technology/ material review fee. Innovative products used in on-site systems in Oregon must be approved by the Department. This takes considerable time and resource. This fee begins to cover the true cost of this review process.

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- A product review fee pertaining to items such as septic tanks that are reviewed for compliance with the construction standards, before being approved for use in Oregon. These products are not being reviewed in a timely manner at present.
- Repair permit fees. These were raised, but less than the inflation factor. **
- The addition of a permit transfer or reinstatement fee. This will place lower fees in effect for these activities which are presently charged a higher "new" permit fee.
- The establishment of a "minor alteration" permit fee. Alterations to onsite systems can be minor in terms of system construction and the related DEQ staff need for permit review or major requiring site visits, soil evaluations and inspections. At present, there is no differentiation between minor or major alteration permits. The Department is proposing to define "major" and "minor" alteration and place a lower fee in effect for a "minor alteration" permit.
- The variance fee has been set to reflect true cost. This fee had been set in statute since 1979. The new fee not only reflects inflation but additional work necessary, such as public notice to adjacent property owners, that was not required in 1979.
- A reduced annual compliance determination fee for holding tank permittees that certify compliance with the permit conditions.

The revised fees would apply to site evaluations, construction-installation permits, repair permits, alteration permits, authorization notices, holding tanks under a WPCF permit along with a revision to the surcharge currently collected by the Department on all Department and county-administered on-site permitting activities.

ORS 454, which was revised in the 1999 legislative session, allows contract counties to set their own fees. The proposed rules "disconnect" contract county fee schedules from the Department's fee schedule in Division 71, reflecting this statutory revision. This revision will allow the 22 contract agents to set their own fees in compliance with Oregon statutes to cover the actual costs of the county's on-site program.

The other rule amendments that went to public comment include:

- ◆ updating soils terminology used in the program;

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- ◆ clarification that drainfields following sand filters are installed out of the groundwater to align the rule with state statutes;
- ◆ allowing for observation of groundwater conditions in areas with soils other than rapidly draining;
- ◆ extending the implementation date for examination of license holders one year from January 2000 to January 2001. This will allow time to implement this requirement in an appropriate manner.

Summary of Significant Public Comment and Changes Proposed in Response

The comment period ended October 29, 1999. The Department did not receive any testimony at the two public hearings and four written comments during the public comment period.

Of these commentors, three expressed concern relating to the increase in fees, while one was specific in supporting the lower fee for holding tank owners. The following lists specific issues raised. The Department's evaluation of these significant comments is in Attachment D.

- The proposed fees are too high and will not provide improved service.
- A concern relating to the "disconnection" of the county fee schedules from the state fee schedule and the belief that the county fees are presently too high.
- There was concern expressed from one commentator that the proposed rule of excluding drainfield trenches following a sand filter from being installed in the groundwater will not achieve its purpose.

The Department is not proposing to modify the fee proposal that went to public hearing. The Department believes the program can be adequately funded with the proposed fees. If modifications are made, revenues could be less than necessary to provide the needed resources. It is important to note that revenues are projected from anticipated services which will be requested in the future, i.e. number of houses being built, number of repairs to systems, etc. The Department has made conservative projections of workload, but believes it would have been reasonable to build in a reserve to avoid similar service cuts as in the last biennium. The proposed fees represent the Department's best assessment for what is needed for revenue to fund the on-site program. For the long term effectiveness of the program, the Department does not recommend lower fees.

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Staff have reviewed and discussed the technical comment received related to keeping the drainfield trenches following a sand filter out of temporary groundwater and found no justification for modification of the proposal.

Staff have re-evaluated the proposed extension of the implementation date for examination of license holders for one year from January 2000 to January 2001. In evaluating process improvements for the on-site program more emphasis was placed on education and training relating to the examination requirement. The expectation is this added emphasis could provide private sector expertise for delivering some services now provided by government. In moving in this direction, the Department believes additional time is necessary to adequately implement examination/certification. It is proposed that the implementation date for examination be extended from January 2000, to January 2002. This is an additional one year extension from the proposal that went to public comment.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

If the proposed rule amendments are adopted by the EQC, the amendments will replace the current fee schedule and other specific rules used by all of the DEQ offices that accept applications and provide field work for on-site activities. Department staff are at present accepting fees from the public, therefore no internal procedural change is needed for this purpose. The Department plans to notify newspapers, local installers and pumpers of the changes before the effective date. There will be notices posted and handouts available at DEQ offices for a period of time before the fees become effective. The proposed implementation date is February 1, 2000.

Recommendation for Commission Action

It is recommended that the Commission adopt the rule amendments, (OAR 340-71-140) regarding on-site fee activities as presented in Attachment A of the Department Staff Report, with an effective date of February 1, 2000.

Attachments

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Legal Notice of Hearing
 - 2. Fiscal and Economic Impact Statement
 - 3. Land Use Evaluation Statement
 - 4. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements

- 5. Cover Memorandum from Public Notice
- C. Presiding Officer's Report on Public Hearing
- D. Department's Evaluation of Public Comment
- E. Advisory Committee Membership and Report
- F. Rule Implementation Plan
- G. On-Site Program Process Improvements

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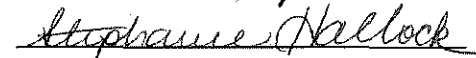
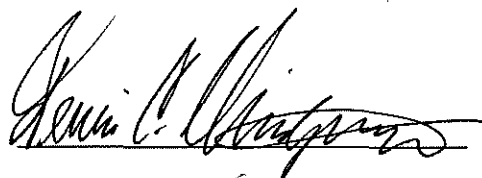
Reference Documents (available upon request)

Written Comments Received (listed in Attachment C)

Approved:

Section:

Division:



Report Prepared By: Dennis Illingworth

Phone: 503-229-5189

Date Prepared: October 29, 1999

**

**

Proposed amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

Note: The underlined portions of the text represent proposed additions to the rule. The ~~bracketed~~ portion of the text represents proposed deletions to the rule.

Amend OAR 340-071-0100(6) & (28) as follows:

- (6) “Alteration” means expansion and/or change in location of an existing system, or any part thereof. Major alteration is the expansion or change in location of the soil absorption facility or any part thereof. Minor alteration is the replacement or re-location of a septic tank or other components of the system other than the soil absorption facility.
- (28) “Conditions Associated With Saturation” means soil morphological properties that may indicate the presence of a water table that persists long enough to impair system function and create a potential health hazard. These conditions include:
- (a) High chroma matrix with iron depletions. Soil horizons whose matrix chroma is 3 or more in which there are some visible iron depletions having a value 4 or more and a chroma of 2 or less. Iron-manganese concentrations as soft masses or pore linings may be present but are not diagnostic of conditions associated with saturation ~~*{Reddish brown or brown soil horizons with gray (chromas of two (2) or less) and red or yellowish red mottles}*~~; or
 - (b) Depleted matrix with iron concentrations. Soil horizons whose matrix color has a value of 4 or more and a chroma of 2 or less as a result of removal of iron and manganese oxides, and that have some visible zones of iron concentration as soft masses or pore linings ~~*{Gray soil horizons, or gray soil horizons with red, yellowish red, or brown mottles}*~~; or
 - (c) Depleted matrix without iron concentrations. Soil horizons whose color is more or less uniform with a value of 4 or more and a chroma of 2 or less as a result of removal of iron and manganese oxides. These horizons lack visible iron concentrations as soft masses or pore linings ~~*{Dark colored highly organic soil horizons}*~~; or
 - (d) Reduced matrix. Soil horizons whose color has a value of 4 or more and a chroma of 2 or less with hues that are often, but not exclusively, on the gley pages of the Munsell Color Book. Upon exposure to air, yellow colors form within 24 hours as some of the ferrous iron oxidizes; or ~~*{Soil profiles with concentrations of soluble salt at or near the ground surface.}*~~
 - (e) Dark colored organic soils. Either these soils are Histosols, or they are mineral soils that have Histic epipedons; or
 - (f) Salt-affected soils. Soils in arid and semi-arid areas that have visible accumulations of soluble salts at or near the ground surface; or
 - (g) Dark colored shrink-swell soils. These soils are Vertisols whose colors have values of 3 or less and chromas of 1 or less. Iron concentrations may be present but are not diagnostic of conditions associated with saturation.

Amend OAR 340-071-0130(16),(18) & (24) as follows:

(16) WPCF Permits for Existing Facilities: **

- (a) Owners of existing systems meeting the system descriptions in subsections (15)(a), (b), and (d) through (g) of this rule are not required to apply for a WPCF permit until such time as a system repair, or alteration is necessary;
- (b) All owners of existing holding tanks installed under a construction-installation permit issued pursuant to these rules, except holding tanks described in OAR 340-071-0340(5) and septic tanks used as temporary holding tanks pursuant to OAR 340-071-0160(11), shall make application for a WPCF permit by September 30, 1998. The application filing fee and the annual compliance determination fee listed in OAR 340-071-0140(5) ~~[(6)]~~ shall be submitted with the application. Applications submitted on or after October 1, 1998 shall include all applicable fees established in OAR 340-071-0140;

~~[(e) — Owners of holding tanks installed before April 1, 1995 who have obtained or applied for a WPCF permit for the holding tank between April 1, 1995 and June 30, 1997 and have paid a permit processing fee, a WPCF general permit registration fee, a surcharge and an annual compliance determination fee, shall not be required to pay the annual compliance determination fee for the year July 1, 1997 to June 30, 1998.]~~

- (18) Fees for WPCF Permits. The fees required to be filed with WPCF permit applications and to be paid annually for WPCF permit compliance determination are outlined in OAR 340-071-0140 ~~(5) [(6)]~~.
- (24) Groundwater Levels. All groundwater levels shall be predicted using "Conditions Associated With Saturation" as defined in OAR 340-71-100. **In areas where ~~high~~ conditions associated with saturation do not occur or are inconclusive such as** in soil with rapid or very rapid permeability, predictions of the high ~~est~~ level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in that area. **A properly installed nest of piezometers or other methods acceptable to the Department shall be used for making water table observations.**

Amend 340-071-0140 as follows:

340-071-0140 FEES — GENERAL

- (1) Except as provided in section ~~(4)~~ ~~(5)~~ of this rule, the following non-refundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

| ON-SITE SEWAGE DISPOSAL SYSTEMS | MAXIMUM FEE |
|------------------------------------|----------------|
|------------------------------------|----------------|

(a) New Site Evaluation:

(A) Single Family Dwelling:

- | | |
|--|----------------------------------|
| (i) First Lot..... | /\$335/ <u>\$450;</u> |
| (ii) Each Additional Lot Evaluated During Initial Visit..... | /\$205/ <u>\$450;</u> |

(B) Commercial Facility System:

- | | |
|--|----------------------------------|
| (i) For First One Thousand (1,000) Gallons Projected Daily Sewage Flow | /\$335/ <u>\$450;</u> |
| (ii) For systems with projected sewage flows greater than one thousand (1,000) gallons but not more than /\$5,000/ <u>2,500</u> gallons, the site evaluation application fee shall be /\$335/ <u>\$450</u> plus an additional /\$90/ <u>\$110</u> for each 500 gallons or part thereof above 1,000 gallons. | |

| | |
|--|----------------------------------|
| (C) Site Evaluation Report Review..... | /\$290/ <u>\$400;</u> |
|--|----------------------------------|

(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule;

(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost;

(F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

(A) For First One Thousand (1,000) Gallons Projected Daily Sewage Flow:

- | | |
|----------------------------------|----------------------------------|
| (i) Standard On-Site System..... | /\$460/ <u>\$665;</u> |
| (ii) Alternative System: | |

| | | |
|--------|--------------------------------------|----------------------------------|
| (I) | Aerobic System..... | /\$460/ <u>\$665;</u> |
| (II) | Capping Fill..... | /\$710/ <u>\$990;</u> |
| (III) | Cesspool..... | /\$460/ <u>\$665;</u> |
| (IV) | Disposal Trenches in Saproliite..... | /\$460/ <u>\$665;</u> |
| (V) | Evapotranspiration-Absorption..... | /\$460/ <u>\$665;</u> |
| (VI) | Gray Water Waste Disposal Sump..... | /\$200/ <u>\$280;</u> |
| (VII) | Pressure Distribution..... | /\$690/ <u>\$990;</u> |
| (VIII) | Redundant..... | /\$460/ <u>\$665;</u> |
| (IX) | Sand Filter..... | /\$880/ <u>\$990;</u> |
| (X) | Seepage Pit..... | /\$460/ <u>\$665;</u> |
| (XI) | Seepage Trench..... | /\$460/ <u>\$665;</u> |
| (XII) | Steep Slope..... | /\$460/ <u>\$665;</u> |
| (XIII) | Tile Dewatering..... | /\$690/ <u>\$990;</u> |

(iii) At the discretion of the Agent, the permittee may be assessed a reinspection fee, not to exceed ~~/\$140/~~ \$235, when a precover inspection correction notice requires correction of improper construction and, at a subsequent inspection, the Agent finds system construction deficiencies have not been corrected. The Agent may elect not to make further precover inspections until the reinspection fee is paid;

(iv) With the exceptions of sand filter and pressure distribution systems, a ~~/\$25/~~ \$40 fee may be added to all permits that specify the use of a pump or dosing siphon.

(B) For systems with projected daily sewage flows greater than one thousand (1,000) gallons, the Construction-Installation permit fee shall be equal to the fee required in paragraph (1)(b)(A) of this rule plus ~~/\$40/~~ \$60 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons;

NOTE: Fees for construction permits for systems with projected daily sewage flows greater than two thousand five hundred (2,500) gallons shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

(i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee;

- (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1,000) gallons projected daily sewage flow..... ~~/\$165/~~ \$230;
- (iii) For a system with a projected sewage flow greater than 1,000 gallons, the plan review fee shall be ~~/\$165/~~ \$250, plus an additional ~~/\$25/~~ \$40 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons, to a maximum sewage flow limit of two thousand five hundred (2,500) gallons per day;

(D) Permit **Transfer, Reinstatement or Renewal:**

- (i) If Field Visit Required..... ~~/\$240/~~ \$400;
- (ii) No Field Visit Required..... ~~/\$85/~~ \$100;

~~[NOTE: Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-071-0160(10).]~~

- (E) Alteration Permit: ~~/\$450/~~ \$450;
 - (i) Major..... \$650;
 - (ii) Minor..... \$290.

(F) Repair Permit:

- (i) Single Family Dwelling:
 - (I) Major..... ~~/\$245/~~ \$360;
 - (II) Minor..... ~~/\$125/~~ \$165.
- (ii) Commercial Facility:
 - (I) Major — The appropriate fees identified in paragraphs (1)(b)(A), (B), and (C) of this rule apply; **
 - (II) Minor..... ~~/\$200/~~ \$290.

- (G) Permit Denial Review..... ~~/\$290/~~ \$400.

(c) Authorization Notice:

- (A) If Field Visit Required..... ~~/\$280/~~ \$400;
- (B) No Field Visit Required..... ~~/\$90/~~ \$100;
- (C) Authorization Notice Denial Review..... ~~/\$290/~~ \$400;

- (d) Annual Evaluation of Alternative System (Where Required)..... ~~/\$235/~~ \$330;

- (e) Evaluation of Temporary or Hardship Mobile Home..... ~~/\$235/~~ \$330;
- (f) Variance to On-Site System Rules..... ~~/\$225/~~ \$1,300;

NOTE: The variance application fee may be waived if the applicant meets the requirements of OAR 340-071-0415(5).

(g) Rural Area Consideration pursuant to OAR 340-071-0410 ~~{Variance to Standard Subsurface Rules}~~ :

- (A) Site Evaluation..... ~~/\$335/~~ \$450;

NOTE: In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

- (B) Construction-Installation Permit — The appropriate fee identified in subsection (1)(b) of this rule applies.

(h) Sewage Disposal Service:

- (A) New Business License ~~/\$260/~~ \$800;
- (B) Renewal of Existing and Valid Business License..... ~~/\$190/~~ \$400;
- (C) Transfer of or Amendments to License..... ~~/\$135/~~ \$200;
- (D) Reinstatement of Suspended License..... ~~/\$160/~~ \$250;
- (E) Pumper Truck Inspection, First Vehicle:
 - (i) Each Inspection..... ~~/\$80/~~ \$120;
 - (ii) Each Additional Vehicle, Each Inspection..... ~~/\$45/~~ \$60;

- (i) Experimental Systems: Permit..... ~~/\$3,670/~~ \$5,850;
- (j) Existing System Evaluation Report..... ~~/\$285/~~ \$400.

~~{NOTE: The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.}~~

- (k) Innovative or Alternative Technology or Material Review \$ 1,000
- (l) Materials Plan Review \$ 300

~~{(2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed the maximum fees in ORS 454.745(1) and section (1) of this rule shall be established by rule.}~~

~~{(3)}~~ (2) Contract County Fee Schedules, General:

- (a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits to be issued. The county fee schedule shall not include the Department's surcharge fee identified in section ~~(3)~~ ~~(4)~~ of this rule;
- (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department;
- (c) Fees shall not ~~exceed~~ exceed actual costs for efficiently conducted services.
~~(A) Exceed actual costs for efficiently conducted services;~~
~~(B) Exceed the maximum fee established in section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).~~

~~(4)~~ (3) Surcharge. In order to offset a portion of the administrative and program oversight costs of the statewide on-site sewage disposal program, a surcharge of ~~\$30~~ \$40 for each site evaluated, for each construction installation permit and all other activities for which an application is submitted, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as negotiated in the memorandum of agreement (contract) between the county and the Department.

EXCEPTION: The surcharge shall not apply to:

~~(1) WPCF permit applications for existing holding tanks submitted by September 30, 1998;~~

~~(2)-1-~~ Sewage Disposal Service License applications;

~~(3)-2-~~ Pumper Truck Inspections.

~~(5)~~ (4) Refunds. ~~The Agent may~~ A refund may be made of all or a portion of a fee accompanying an application if the applicant withdraws the application before ~~the Agent has done~~ any field work or other substantial review of the application has been done.

~~(6)~~ (5) Fees for WPCF Permits. The following fee schedule shall apply to WPCF Permits for on-site sewage disposal systems issued pursuant to OAR 340-071-0162:

- (a) Application filing fee (all categories) \$ 50;
- (b) Permit processing fees for sewage lagoons and other on-site disposal systems over 1,200 gpd:
 - (A) New Applications \$ 2,000;
 - (B) Permit Renewals (including request for effluent limit modifications) \$ 1,000;
 - (C) Permit Renewal (without request for effluent limit modifications) \$ 500;
 - (D) Permit modification (involving increase in effluent limits) \$ 1,000;
 - (E) Permit modification (not involving an increase in effluent limits) \$ 500;

- (c) Permit processing fees for on-site systems of 1,200 gpd or less:
- (A) New Applications..... \$ 400;
 - (B) Permit Renewals (involving request for effluent limit Modifications) \$ 200;
 - (C) Permit Renewals (without request for effluent limit modifications) \$ 100;
 - (D) Permit Modifications (involving increase in effluent limitations) \$ 150;
 - (E) Permit Modifications (not involving an increase in effluent limits) \$ 100;
- (d) Registration fee for General Permits..... \$ 150;
- (e) Site Evaluation Fee:
- (A) Facilities with design flow of 5,000 gpd or less, same as section (1)(a) of this rule;
 - (B) Facilities with design flow greater than 5,000 gpd \$ 1,200;
- (f) Site Evaluation Confirmation Fee..... \$ 350;
- NOTE:** A Site Evaluation Confirmation Fee is required if the site evaluation is performed by a qualified consultant but, through the site evaluation review process, a site visit is still required by the Department or Agent.
- (g) Plan Review Fee:
- (A) Commercial Facilities with design flows less than 5,000 gpd same as paragraph (1)(b)(C) of this rule;
 - (B) Commercial Facilities with design flows of 5,000 gpd or More \$ 500;
 - (C) Non-commercial Facilities \$ 100;
- NOTE:** A plan review fee is required when engineered plans must be reviewed for a facility which requires a WPCF permit.
- (h) Annual Compliance Determination Fee:
- (A) On-site sewage lagoon with no discharge..... \$ 600;
 - (B) On-site subsurface systems with individual WPCF Permit or general permit:
 - (i) Standard or alternative subsurface system not listed below, with design flow of 20,000 gpd or more..... \$ 500;

- (ii) Standard or alternative subsurface system not listed below with design flow less than 20,000 gpd \$ 250;
- (iii) Aerobic systems, 1,500 gpd or more..... \$ 500;
- (iv) Aerobic systems, less than 1,500 \$ 250;
- (v) Recirculating Gravel Filter, 1,500 gpd or more..... \$ 500;
- (vi) Recirculating Gravel Filter, less than 1,500 gpd..... \$ 250;
- (vii) Sand Filter, 1,500 gpd or more \$ 500;
- (viii) Sand Filter, less than 1,500 gpd \$ 250;
- (ix) Holding tanks \$ 200.

(I) The owner of a holding tank regulated under a WPCF permit submitting an annual written certification, on a Department approved form, that the holding tank has been operated the previous year in full compliance with the permit and that the previous year service log for the holding tank is available for inspection by the Department.....\$ 25

~~[NOTE: The annual compliance determination fee (ACDF) is due July of each year. For permits which are issued between July 1 and September 31, the full fee is due before the permit will be issued. For permits issued after September 31, the ACDF will be prorated by calendar quarter.]~~

Stat. Auth.: ORS 454.625 & 468.020

Stats. Implemented: ORS 454.745 & 468.065

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 13-1986, f. & ef. 6-18-86; DEQ 15-1986, f. & ef. 8-6-86; DEQ 6-1988, f. & cert. ef. 3-17-88; DEQ 11-1991, f. & cert. ef. 7-3-91; DEQ 18-1994, f. 7-28-94, cert. ef. 8-1-94; DEQ 27-1994, f. & cert. ef. 11-15-94; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 8-1998, f. & cert. ef. 6-5-98

Amend OAR 340-071-0160(9) and (10) as follows:

- (9) A permit issued pursuant to these rules shall be effective for one year from the date of issuance for construction of the system. ~~[The construction installation permit is not transferable.]~~ Once a system is installed pursuant to the permit, and a Certificate of Satisfactory Completion has been issued for the installation, conditions imposed as requirements for permit issuance shall continue in force as long as the system is in use.
- (10) **Renewal or reinstatement** of a permit may be granted to the original permittee if an application for permit renewal **or reinstatement** is filed **within one year after ~~prior to~~** the original permit expiration date. **Transfer of a permit from the original permittee to another person may be granted if an application for permit transfer is filed prior to the original permit expiration date and no other changes to the permit is necessary.** Application for permit renewal, **reinstatement or transfer** shall conform to the requirements of sections (2) and (4) of this rule. The permit shall be issued or denied consistent with sections (5), (6), (8), and (9) of this rule.

amend OAR 340-071-0290(3) as follows:

- (3) Sites approved for sand filter systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-220, or where standard or pressurized disposal trenches would be used, ~~for where selected by the Agent,~~ and all the following minimum site conditions can be met:

NOTE: Groundwater levels shall be predicted using standards in OAR 340-71-130(24).

- (a) The highest ~~est~~ level attained by a temporary groundwater table would be:

(A) Twelve (12) inches, but less than eighteen (18) inches below ground surface, on sites where:

(i) The ground slope does not exceed twelve (12) percent; and

(ii) Equal distribution methods are used (achieved by gravity or through the use of either a hydrosplitter or pressurized distribution method); and

(iii) A capping fill is placed in accordance with OAR 340-71-265(2) and OAR 340-71-265(3)(a through c).

(B) Eighteen (18) inches or more below ground surface, on sites where equal distribution methods are used. Equal distribution may be achieved by gravity, or through the use of a hydrosplitter or pressurized distribution method;

(C) Twenty-four (24) inches or more below ground surface, on sites where serial distribution methods are used;

NOTE: In no instance shall a disposal trench be installed deeper than the highest level of the temporary water table. The minimum backfill depth within the disposal trenches shall be six (6) inches for trenches using equal distribution methods, and twelve (12) inches for trenches using serial distribution.

~~(A) Twelve (12) inches or more below ground surface where gravity equal distribution trenches are used. Pressurized distribution trenches may be used to achieve equal distribution on slopes up to twelve (12) percent; or~~

~~(B) Twelve (12) inches or more below ground surface on sites requiring serial distribution where disposal trenches are covered by a capping fill, provided: Trenches are excavated twelve (12) inches into the original soil profile, slopes are twelve (12) percent or less, and the capping fill is constructed according to provisions under OAR 340-71-265(2) and 340-71-265(3)(a) through (c); or~~

~~(C) Eighteen (18) inches or more below ground surface on sites requiring serial distribution where standard serial distribution trenches are used.~~

Amend OAR 340-071-0600(1) as follows:

340-071-0600 SEWAGE DISPOSAL SERVICE

- (1) No person shall perform sewage disposal services or advertise or represent himself/herself as being in the business of performing such services without first obtaining a business license from the Department. Unless suspended or revoked at an earlier date, a Sewage Disposal Service business license issued pursuant to this rule expires on July 1 next following the date of issuance. Beginning January 1, ~~2000~~ **2002**, in order to be licensed, the applicant for a license with an installer endorsement must provide evidence that at least one individual working for the business has passed a written examination to demonstrate a minimally adequate knowledge of the on-site rules found in OAR Chapter 340, Divisions 71 and 73, or attend a Department approved training session covering the rules. In addition, the person at the job-site who supervises or is responsible for the construction or installation of the system shall also pass the written test or attend the training session. The Department will provide all persons who pass the test or attend the training session with a wallet size card for this purpose. People required to be certified shall be able to readily produce evidence of certification when asked to do so by the Agent. Re-certification is required every five (5) years, and may be accomplished by attending pertinent training sessions, workshops, or through other methods acceptable to the Department.

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING

A Statement of Need and Fiscal Impact accompanies this form.

DEQ - WQ

Agency and Division

Chapter 340

Administrative Rules Chapter Number

Susan M. Greco

Rules Coordinator

(503) 229-5213

Telephone

811 S.W. 6th Avenue, Portland, OR 97213

Address

HEARING LOCATIONS:

| | | | |
|-------------------------|------------------|-------------------------------|---------------------------|
| | | Deschutes County | |
| | | 1130 NW Harriman, Upper Level | |
| <u>October 18, 1999</u> | <u>6:00 p.m.</u> | <u>Bend Oregon</u> | <u>Dennis Illingworth</u> |
| Hearing Date | Time | Location | Hearings Officer |
| | | Oregon PERS Building | |
| | | 11410 SW 68th Parkway | |
| <u>October 19, 1999</u> | <u>6:00 p.m.</u> | <u>Tigard</u> | <u>Dennis Illingworth</u> |
| Hearing Date | Time | Location | Hearings Officer |

Are auxiliary aids for persons with disabilities available upon advance request?

Yes

RULEMAKING ACTION

AMEND:

OAR 340-071-0100, 340-71-0130, 340-71-0140, 340-0171-0160, 340-71-0290,
340-71-0600

Stat. Auth.: ORS 454.625, 454.745

Stats. Implemented: ORS 454.625, 454.745

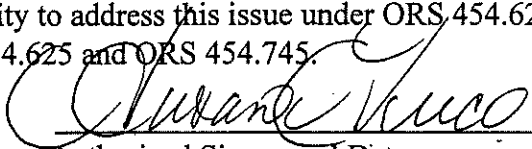
RULE SUMMARY

The Department is proposing amendments to rules for onsite sewage disposal that would affect fees, disconnect county fee schedules from DEQ fee schedules, amend definitions, modify the method to predicate groundwater levels, add updated terminology, better assure drainfield trenches are installed out of the groundwater following sand filters, and delay implementing the certification of sewage disposal workers.

The Department has the statutory authority to address this issue under ORS 454.625 & 454.745. These rules implement ORS 454.625 and ORS 454.745.

October 29, 1999; 5 p.m.

Last Day for Public Comment



Authorized Signer and Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

Fiscal and Economic Impact Statement

Introduction

The Department is proposing the following rule amendments to OAR Chapter 340 Division 71;

- 1 OAR 340-71-100 (6) and (28), amend definitions relating to both "Alteration" and "Conditions Associated With Saturation";

340-71-100 (6). These definition modifications include creation of a "major" and "minor" alteration definition. The Department believes that a minor alteration to an on-site system can be allowed at a lower permit cost. At present there is only one fee for an alteration permit. Defining a "minor" alteration allows the establishment of a lower fee in 71-140 for minor alteration permits.

340-71-100 (28). The definition modification for "Conditions Associated with Saturation" essentially updates the rules with the same terminology the US Natural Resource Conservation Service uses for describing groundwater conditions in soils.

- 2 OAR 340-71-130 (24), revise methods used for the prediction of groundwater levels when condition of saturation are not event or conclusive in the soils;

The revision relating to predicating groundwater levels, allows for observation of the groundwater levels at all times where soil conditions generally used in determining groundwater levels, are not conclusive.

- 3 OAR 340-71-140, revise the fee schedule and disconnect contract county fee schedules from the Department fee schedule;

The revised fee schedule would be effective for all on-site sewage disposal activities, and holding tanks under a WPCF permit. All other systems permitted under a Water Pollution Control Facility (WPCF) permit are not included in this proposal.

The revised fees would apply to site evaluations, construction-installation permits, repair permits, alteration permits and authorization notices and includes revision of the surcharge currently collected by the Department on all DEQ and county-administered on-site permitting activities. This fee schedule would be in effect for those 14 counties that the Department serves directly.

ORS 454, which was revised in the 1999 legislative session, now allows contract counties to set their own fees. The disconnection of contract county fee schedules from the Department's fee schedule in Division 71, reflects this statutory revision and will allow counties and contract agents to set their own fees in compliance with Oregon Statutes to cover the actual costs of an on-site program.

The proposed fee schedule was developed using a 1994 program cost analysis completed by the Department indicating workload and associated costs for on-site activities. The current proposal generally adds inflation factors through the year 2000 to the 1994 costs. The inflation factor is the Cost of Living Index (CPI) obtained from the State of Oregon Economist. In addition, specific fees were adjusted further as follows:

- The license fee for Sewage Disposal Businesses. The Department's Rule Advisory Committee recommended that this fee be increased to reflect inflation and to support additional compliance efforts and streamlining of the licensing process.
- The fee for the second lot evaluation when more than one lot is requested to be evaluated. The Rules Advisory Committee concurred with Department staff that time saved when doing other lot evaluations at the time of the initial lot is not significant enough to warrant a reduced fee for the additional lots.
- The addition of an innovative technology/ material review fee and a product review fee. Innovative products used in on-site systems in Oregon must be approved by the Department. This takes considerable time and resource. This fee only begins to cover the true cost of this review process.
- The product review fee pertains to items such as septic tanks that are reviewed for compliance with the construction standards, before being approved for use in Oregon. These products are not being reviewed in a timely manner at present.
- Repair permit fees were raised, but less than the inflation factor.
- The addition of a permit transfer or reinstatement fee. This will place lower fees in effect for these activities which are presently charged a higher "new" permit fee.

- The establishment of major and minor alteration permit fees. The minor alteration permit will be at a considerable lower cost.
 - The variance fee has been set to reflect true cost. This fee had been set in statute since 1979. This fee not only reflects inflation but additional work necessary, such as public notice to adjacent property owners, that was not required in 1979.
 - The revised fees would also include a reduced annual compliance determination fee for holding tank permittees that certify compliance with the permit conditions.
- 4 OAR 340-71-290, revise the approval criteria for sand filter systems;

The approval criteria for sand filter systems is being revised to exclude the possibility of trenches being installed into groundwater. Installation of a drainfield trench in groundwater is not allowed under existing statutes. The criteria has been revised to where sites that could be presently approved will continue to be approved, although a different distribution method following the sand filter may be necessary to keep the drainfield trenches out of the groundwater.

- 5 OAR 340-71-600 (1), revise the effective date requiring written examination of people licensed to install on-site sewage systems;

The effective date for written examination of installers is being changed from January 2000 to January 2001. Recent Oregon legislation clarifies the ability of the Department to set minimum qualifications for people licensed to work with on-site sewage systems. The Department cannot place this qualification process in place by January 2000 and believes an additional year is necessary to implement the examination.

General Public

The general public will generally be required to pay higher fees for on-site permitting activities. Property owners requesting minor alterations of their on-site system may pay lower fees. Permittees of holding tanks regulated under WPCF permit will pay a lower annual fee if they certify the tank was operated in compliance with the permit and keep a service log on record for inspection.

The definition revisions relating to "Conditions Associated With Saturation", should not affect the general public. They are intended to keep current with nationally recognized terminology.

The utilization of observations for prediction of groundwater levels will allow for a more definitive knowledge of the groundwater on some lots or parcels. This may delay development of some sites until these observation can be made.

Sand filter approval criteria may affect the type of distribution system that is installed on a property, but will not affect the initial decision as to whether a lot or parcel can utilize an on-sites sewage system.

These activities include approximately 4,000 to 5,000 permits issued yearly in Oregon, the majority of which are issued by local governments who contract with the Department to carry out the activities necessary for the on-site program. In counties served directly by the Department, approximately 1000 to 1500 permits are issued each year. **

Small Business

There are over 1,200 licensed Sewage Disposal Businesses that have a business license through the Department. The vast majority are small businesses. The yearly renewal fee for this license will be increased from \$190 to \$400. When a new business wishes to be licensed, the fee will be \$800, whereas it is now \$260. Many of these businesses will also be affected by the change in the effective date of the requirement for examination. This examination process will be delayed for one year.

A small business that may be installing an on-site sewage disposal system or undertaking an alteration, change in use or another permitted activity, will be paying an increased fee.

Small businesses that wish to have technology or materials approved for use in Oregon for on-site systems will be paying a review fee that has not been in effect before. However, product review times for items such as septic tanks are at present extremely lengthy. Innovative technology/materials also have lengthy time delays. The fees will assist in paying expenses involved in having the products reviewed in a timely manner. **

Large Business

Any large business that is licensed by the Department as a Sewage Disposal Business, will be paying business license fees as noted above for small businesses. Most large businesses, if utilizing a on-site sewage disposal system, will be permitted under a ongoing operation and maintenance WPCF permit. The fees for those permits are not being considered for revision at present.

Large businesses that wish to have technology or materials approved for use in Oregon for on-site systems will be paying a review fee that has not been in effect before. However, product review times for items such as septic tanks are at present extremely lengthy. Innovative technology/materials also have lengthy time delays. The fees will assist in paying expenses involved in having the products reviewed in a timely manner.

Local Governments

Any local government that may install, alter or repair an on-site sewage disposal system that is not permitted under a WPCF permit, would be paying the higher fees.

Although county fees will not be directly affected, surcharges added to all on-site activity applications by both DEQ direct service offices and county agents will be increased. The disconnection of contract county fee schedules from the Department's fee schedule in Division 71, reflects a statutory revision and will allow the 22 contract agents to set their own fees in compliance with Oregon Statutes to cover the actual costs of their on-site program.

State Agencies

The economic impact will result in a revenue gain to DEQ of approximately \$1.2 million over this biennium, (1999-2001). This increase in revenue will be used to retain presently vacant positions that cannot be supported by current revenue due to inflation factors over the last four years and will allow for additional resources as requested by the on-site industry and the Department's Rule Advisory Committee.

Assumptions

The majority of applicants requesting permits or licenses under this fee schedule will be paying a higher fee than at present.

Housing Cost Impact Statement

Due to the physical land area necessary to install an on-site sewage disposal system, the Department has determined that this proposed rulemaking will not place an additional charge on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel. In general a 6,000 square foot parcel will not support an on-site system and associated development.

However on a parcel that is large enough to accommodate an on-site system, generally well over 10,000 square feet, the Department has determined an additional cost of \$370, assuming the use of a standard on-site sewage disposal system. The revised fee schedule will affect those areas of the state where on-site sewage disposal systems are utilized and where DEQ provides direct service, or in counties that have adopted this proposed fee schedule. This proposal does not affect residential housing or other development on municipal sewer systems.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The Department is proposing the following rule amendments to OAR Chapter 340 Division 71;

- amend definitions relating to both "Alteration" and "Conditions Associated With Saturation" (OAR 340-71-100 (6) and (28));
- revise methods used for the prediction of groundwater levels when condition of saturation are not event or conclusive in the soils (OAR 340-71-130 (24));
- revise the fee schedule and disconnect contract county fee schedules from the Department fee schedule (OAR 340-71-140);
- revise the approval criteria for sand filter systems (OAR 340-71-290); and,
- revise the effective date requiring written examination of people licensed to install on-site sewage systems (OAR 340-71-600 (1)).

The purpose is to provide fees and revise rules implementing the on-site sewage disposal program for both permit and non permit related activities. These activities include site evaluations, construction-installation permits, authorizations, and complaint investigations. Fees are the sole source of funding for the on-site program. Water Pollution Control Facilities (WPCF) permitting fees other than a reduced annual fee for holding tank permittees, are not included in this proposal.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes.

a. If yes, identify existing program/rule/activity:

The on-site sewage disposal rules, OAR Chap 340-71 & 73 require construction-installation permits for new on-site systems, repair of on-site systems, alteration of on-site systems and authorizations for placing into service or changing the use of on-site systems, that are considered to be land use actions.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes, currently Land Use Compatibility Statements are required from the affected local government, before issuance of a permit by DEQ or our contract Agent.

c. If no, apply the following criteria to the proposed rules.

Not applicable

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

Not applicable

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not Applicable

Division


Intergovernmental Coord.

9/15/99
Date

Questions to be Answered to Reveal

Potential Justification for Differing from Federal Requirements.

Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

No.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Not applicable.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

Not applicable.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Not applicable.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

Not applicable.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Not applicable.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Not applicable.

8. Would others face increased costs if a more stringent rule is not enacted?

Not applicable.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

Not applicable.

10. Is demonstrated technology available to comply with the proposed requirement?

Not applicable.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Not applicable.

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 14, 1999
To: Interested and Affected Public
Subject: Rulemaking Proposal - Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

This memorandum contains information on a proposal by the Department of Environmental Quality (DEQ) to adopt rule amendments regarding fees for on-site sewage treatment and disposal activities and other issues for the DEQ. As required by ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's intended action to adopt a rule.

This proposal would increase many of the On-site Sewage Treatment & Disposal Program application fees established by the DEQ. These fees were proposed to be raised in the fall of 1998. Five public hearings were held around the state at that time and comments received and reviewed. In December of 1998, the DEQ in conjunction with the Department of Administrative Services agreed to delay implementation of new fees for the on-site program to allow for review by the 1999 legislature. The legislature approved expenditure limitation to allow for an increase in on-site fees. Since the delay has been over six months and other rule amendments are now proposed, a new public comment and hearing process for the revisions has been initiated.

The following rule amendments to OAR 340, Division 71, are being proposed;

- 1 OAR 340-71-100 (6) and (28) amends the definitions relating to both "Alteration" and "Conditions Associated With Saturation";

The modifications include creation of a "major" and "minor" alteration definition. At present there is only one fee for an alteration permit. Defining a "minor" alteration allows the establishment of a lower fee in 71-140 for minor alteration permits.

The definition modification for "Conditions Associated with Saturation" essentially updates the rules with the same terminology the US Natural Resource Conservation Service uses for describing groundwater conditions in soils.

- 2 OAR 340-71-130 (24), revises the observation method used for the prediction of groundwater levels when conditions of saturation are not evident or conclusive in the soils;

This revision relating to predicating groundwater levels, allows for observation of the groundwater levels at any time where soil conditions generally used in determining groundwater levels, are not conclusive.

- 3 OAR 340-71-140 revising the on-site program fee schedule and disconnecting contract county fee schedules from the Department fee schedule.

During the 1999 Legislative session, the on-site program package was passed. This package will allow the Department to retain 4 positions that we have held vacant due to the budget deficient and allow the hiring of additional staff. This will bring the FTE in the program to approximately 29.5. The package was based on the presumption that new fees would be necessary.

The Department performed a workload analysis in 1994 to determine true costs of the on-site program. The proposed fee schedule begins with the October 1994 fees that were developed from this analysis and then adds inflation through the year 2000. Individual adjustments were then made to specific fees as follows:

- The license fee for Sewage Disposal Businesses. The Department's Rule Advisory Committee recommended that this fee be increased to reflect inflation and to support additional compliance efforts and streamlining of the licensing process.
- The fee for the second lot evaluation when more than one lot is requested to be evaluated. The Rules Advisory Committee concurred with Department staff that time saved when doing other lot evaluations at the time of the initial lot is not significant enough to warrant a reduced fee for the additional lots.
- The addition of an innovative technology/ material review fee. Innovative products used in on-site systems in Oregon must be approved by the Department. This takes considerable time and resource. This fee begins to cover the true cost of this review process.
- A product review fee pertaining to items such as septic tanks that are reviewed for compliance with the construction standards, before being approved for use in Oregon. These products are not being reviewed in a timely manner at present.
- Repair permit fees. These were raised, but less than the inflation factor.
- The addition of a permit transfer or reinstatement fee. This will place lower fees in effect for these activities which are presently charged a higher "new" permit fee.
- The establishment of major and minor alteration permit fees. The minor alteration permit will be at a considerable lower cost.
- The variance fee has been set to reflect true cost. This fee had been set in statute since 1979. This fee not only reflects inflation but additional work necessary, such as public notice to adjacent property owners, that was not required in 1979.
- A reduced annual compliance determination fee for holding tank permittees that certify compliance with the permit conditions.

The revised fees would apply to site evaluations, construction-installation permits, repair permits, alteration permits, authorization notices, holding tanks under a WPCF permit and includes revision of the surcharge currently collected by the Department on all DEQ and county-administered on-site permitting activities.

Other systems permitted under a Water Pollution Control Facility (WPCF) permit are *not* included in this proposal. This fee schedule would be in effect for those 14 counties that the Department serves directly.

ORS 454, which was revised in the 1999 legislative session, allows contract counties to set their own fees. The disconnection of contract county fee schedules from the Department's fee schedule in Division 71, reflects this statutory revision and will allow the 22 contract agents to set their own fees in compliance with Oregon statutes to cover the actual costs of the county's on-site program.

Assuming the use of a standard on-site sewage disposal system on a parcel of land, the Department has determined that these fees would increase the permitting cost by \$370.

4 OAR 340-71-290(3) revises the approval criteria for sand filter systems;

The approval criteria for sand filter systems is being revised to exclude the possibility of trenches being installed into groundwater. Installation of a drainfield trench in groundwater is not allowed under existing statutes. The criteria has been revised to where sites that could be presently approved will continue to be approved, although a different distribution method following the sand filter may be necessary to keep the drainfield trenches out of the groundwater.

5 OAR 340-71-600 (1) revises the effective date requiring written examination of people licensed to install on-site sewage systems;

The effective date for written examination of installers is being changed from January 2000 to January 2001. Recent Oregon legislation clarifies the ability of the Department to set minimum qualifications for people licensed to work with on-site sewage systems. Due to time constraints, this qualification process cannot be in place by January 2000. An additional year is necessary to implement the examination.

What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

- | | |
|--------------|--|
| Attachment A | The official statement describing the fiscal and economic impact of the proposed rule, (required by ORS 183.335). |
| Attachment B | A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans. |
| Attachment C | Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements. |
| Attachment D | The actual language of the proposed rule amendments. |

Public Hearings:

Public hearings, at which comments will be received either orally or written, will be held. The public hearings will be held at the following dates and times, and at the following locations:

DATE: October 18, 1999
TIME: 6 p.m.
LOCATION: Deschutes County Commissioners Conference Room,
Upper Level,
1130 NW Harriman
Bend Oregon

DATE: October 19, 1999
TIME: 6 p.m.
LOCATION: Oregon PERS Building
11410 SW 68th Parkway
Tigard Oregon

Dennis Illingworth, DEQ, will be the Presiding Hearing Officer at the above public hearings.

Public Comment Period

You are invited to review these materials and present written comment on the proposed rule changes. Written comments must be presented to the Department by 5:00 p.m., October 29, 1999. Please forward all comments to Department of Environmental Quality, Attn.: Dennis Illingworth, Water Quality Division, 811 S.W. 6th Avenue, Portland, Oregon, 97204, or you may hand deliver the comments to the Department of Environmental Quality, 811 S.W. 6th, 7th Floor receptionist between 8:00 a.m. and 5:00 p.m.

In accordance with ORS 183.335(13), no comments can be accepted after the close of the comment period. Thus, if you wish for your comments to be considered by the Department in the development of these rules, your comments **must** be received prior to the close of the comment period. Interested parties are encouraged to present their comments as early as possible prior to the close of the comment period to ensure adequate review and evaluation of the comments presented.

What Happens After the Public Comment Period Closes

Following close of the public comment period, the Department will prepare a report which summarizes the comments received. The Environmental Quality Commission (EQC) will receive a copy of this report.

The Department will review and evaluate the rulemaking proposal in light of all information received during the comment period. Following the review, the rules may be presented to the EQC as originally proposed or with modifications made in response to the public comments received.

The EQC will consider the Department's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is November 18 and 19, 1999. This date may be delayed if needed to provide additional time for evaluation and response to the public comments received. You will

be notified of the time and place for final EQC action if you submit written or oral comment during the comment period or ask to be notified of the proposed final action on this rulemaking proposal.

Background on Development of the Rulemaking Proposal

Why is there a need for the rule?

The DEQ regulates on-site sewage treatment and disposal activities throughout Oregon, and performs program-related field services in 14 counties (4 in Western Oregon, 10 in Eastern Oregon). In the other 22 counties, many program responsibilities have been delegated (through inter-governmental agreements) to local units of government. It is necessary to periodically update rules to reflect current technology and practices, revise terminology and bring existing fee schedules up to date to reflect inflation, present work requirements and associated costs. The disconnection of county fees from the DEQ fee schedule is necessary due to statutory amendments.

Within the Department, the program consists of two identifiable segments, field services, and program and support services. Field services is responsible for performing work that is in response to applications (and fees) received within field offices, and must also perform other program duties that are not application (or fee) driven. Examples of non-application driven work include complaint investigation, sanitary surveys, enforcement activities, staff technical training and response to inquiries from the public. The program and support services portion of the program has responsibility for the development of administrative rules, licensing of sewage disposal service businesses, maintenance of the service agreements with local units of government, program planning and guidance and development of training strategies for staff.

The On-site program is entirely supported by fees; there are no Federal or state general fund dollars. Funding to cover the DEQ's cost to implement all aspects of the program comes from application fees, surcharge fees, and sewage disposal service license fees. Based on a review and analysis of program costs and estimates of future activities, present fee revenue is not covering the cost of providing a minimum level of program services. Four full time positions around the state were cut from the program in 1998-99, with the following impacts;

- Site evaluations and subsequent permits are not being completed and issued within the accustomed time period that installers, builders and homeowners have come to expect. Time delays are now worsening due to an increasing backlog during the building season. Site evaluations that have been performed within two to four weeks in some DEQ offices can be five to seven weeks at present. These times will increase without the new fees.
- Variances and report reviews for the on-site rules will be put low on the priority list. These requests have generally been acted upon within one to two months from the date of application. Response for variances and report reviews are now taking six to nine months. These times will increase without the new fees.

Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

Page 6

- Complaints will be investigated only when submitted in writing and shown to be a present health or environmental hazard. Without a fee increase, anonymous complaints will not be investigated.
- Sanitary surveys of areas requesting sewer service due to failing on-site systems, will be delayed for a year or longer.
- Technical assistance to counties has been cutback and may cease.

In addition to fees, other proposed rule amendments are:

- ◆ update soils terminology used in the program;
- ◆ ensure that drainfields following sand filters are installed out of the groundwater and therefore not violating state statutes;
- ◆ allow for observation of groundwater conditions in areas with soils other than rapidly draining;
- ◆ extend the implementation date for examination of license holders one year from January 2000 to January 2001.

How was the rule developed?

The proposed rule amendments for the DEQ were developed after reviewing the need for updating terminology, providing adequate groundwater protection, delaying examination of license holders and the 1994 analysis indicating time needed to process applications, staffing levels, field services data concerning past applications received, and completion of a budget analysis, with input from the Department's Rule Advisory Committee.

Drafts of the proposed rule were presented to the Rules Advisory Committee. The committee expressed consensus and support for the proposed rules and to develop a fee schedule that would fund program services and provide for compliance needs.

Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Dennis Illingworth, 503-229-5189, for times when the documents are available for review. These documents include the 1994 workload analysis to determine true costs of the on-site program, rule advisory committee minutes, and the 1999 Senate Bill 335.

Whom does this rule affect including the public, regulated community or other agencies, and how does it affect these groups?

The proposed fee rule will affect all persons, businesses, and others that submit applications for on-site activities. Although many application fees for services performed by DEQ will be higher, the level of service is expected to be improved in that staff will be able to respond to applications and other requests for assistance faster. Surcharges added to all on-site activities applications by both DEQ direct service offices and county agents will be increased. County fees will not be directly affected. However, the disconnection of contract county fee schedules from the Department's fee schedule in Division 71, reflects a statutory revision and will allow the 22 contract agents to set their own fees in compliance with Oregon Statutes to cover the actual costs of their on-site program.

The proposed rule allowing for observing groundwater levels may in some instances delay decision making regarding on-site sewage disposal for property owners and in some instances allow a less expensive system to be installed after accurate observations are made.

The proposed rule regarding criteria for sand filter approvals may require property owners to install a different distribution method on some sites where sand filters are utilized.

The proposed rule for delaying the January 2000 implementation date of examinations will affect sewage disposal business license holders by not requiring examinations until January 2001.

How will the rule be implemented?

If the proposed rule amendments are adopted by the EQC, the revised rules will replace the current rules and fee schedule used by all of the DEQ offices that accept applications for on-site activities. Department staff are at present accepting fees from the public, therefore no distinct preparation is needed for this purpose. The Department plans to notify newspapers, local installers and pumpers of the changes before the effective date. There will be notices posted and handouts available at DEQ offices for a period of time before the rules become effective. It is proposed these rules become effective January 1, 2000.

This implementation plan may need to be modified to accommodate any legislative action in 2001 regarding these fees.

Contact for More Information

If you would like more information on this rulemaking proposal, or would like to be added to the mailing list, please contact Dennis Illingworth. The phone number is 503-229-5189.

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5317 to request an alternate format.

State of Oregon
Department of Environmental Quality

Memorandum

Date: 10/29/99

To: Environmental Quality Commission
From: Dennis Illingworth
Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: October 18, 1999, beginning at 6 p.m.
Hearing Location: Bend, Oregon
and
Hearing Date and Time: October 19, 1999, beginning at 6 p.m.
Hearing Location: Portland, Oregon

Title of Proposal: Rulemaking Proposal - Amendments to the On-Site Sewage Disposal Rules relating to fees and other provisions.

The rulemaking hearings on the above titled proposal were convened at approximately 6:20 p.m. in both locations.

In Bend there were no people in attendance and the hearing was closed at 6:21 p.m.

In Portland there were three people in attendance and no one signed up to testify. The hearing was closed at 6:21p.m. There was informal discussion with the people in attendance for a time after. Written testimony was received by these people at a later date and is discussed in the evaluation of comments.

The following is a list of written testimony received during the public comment period.

List of Comments Received

- 1) Murray J. Raskin, M& M Industrial Park
Written testimony dated September 22, 1999; received September 27, 1999.
- 2) County Court of Grant County
Written testimony dated September 29, 1999; received October 4, 1999.
- 3) Karen Livingstone, Clackamas County Building Services
Written testimony dated October 20, 1999; received October 22, 1999
- 4) Carol Rhodaback, Best Pots, Inc.
Written testimony dated October 20, 1999; received October 25, 1999.

The Department's Evaluation and Response to Significant Public Comment

The following lists specific issues raised in the comments that were received and the Department's response.

Comment # 2, 3, 4 and 5.

The proposed fees are too high; specifically the license fees and will not provide improved service.

The Department agrees that the increase in many of the fees are significant. Increases in the proposed fees will support service levels approved by the 1999 legislature. These fees are based on the "true cost" of providing service in the program. Improvement in service will be provided by the additional staff resources that will be available for direct field activities, technical assistance to the contract agents and compliance assurance.

The specific increase in the license fees was discussed by the Rule Advisory Committee (RAC). The committee recommended that these fees be increased not only to reflect inflation but to support additional compliance efforts and streamlining of the licensing process. The increase in the license fees will be funding new positions focusing on illegal installations of systems, improper pumping and disposal of septage and other liquid wastes and the use of materials not approved that could create damage to a system in the long term.

There was also a specific comment in regards to the proposed fee for the review of "innovative technology or materials" being excessive. Department staff and the Technical Review Committee (TRC) have reviewed products ranging from effluent filters to drainfield substitutes. A review of any product that needs TRC review will be far greater in cost than the proposed \$1000 fee. This fee only begins to cover associated cost of review. However it is important to note, the Department does not require review of all products through the TRC and therefore the fee would not be charged in many instances.

Comment # 4.

Concern relating to the "disconnection" of the county fee schedules from the state fee schedule and the belief that the county fees are presently too high.

ORS 454 had required that counties maintain on-site fees that were no higher than Department fees, unless the county fees had specific approval from the EQC. Due to the extensive workload analysis done by Department on-site staff in 1994, many counties have used the Department fee schedule as a basis for their fees. Since the legislature implemented a legislative review of all state fees in 1995 and subsequently lowered the on-site fees, some counties have had a difficult time being in compliance with DEQ's fee schedule. County budget needs and times are different than state agencies. When county fees and program budgets are established based on state fees, it becomes difficult to lower the county fees if the state fees are subsequently lowered due to legislative review. To resolve this problem the Department requested a change in ORS 454 that disconnects the

county fee schedule from the state fees while holding the counties responsible for only charging fees sufficient to run the on-site program. The 1999 legislature adopted this revision of ORS 454. This proposed rule implements that revision. While a county may only charge fees sufficient to run the program, it is understood that counties will vary in the minimum service they provide. If county officials and residents wish to have evaluations performed within a few days then fees will reflect the resource needed to make that happen. Residents of a county may also voice their opinion on these local fees through the public process that is required when counties raise fees.

Comment # 3.

Concern that the proposed rule keeping drainfield trenches that follow a sand filter out of temporary groundwater will not achieve its purpose.

This comment focused on technical interpretation and not on questioning the need for the rule. Staff have reviewed and discussed the technical comment received related to keeping the drainfield trenches following a sand filter out of temporary groundwater and found no technical justification for modification of the proposal. The rule as proposed went through extensive revision by the RAC. The proposed language is identical to that recommended by the committee. The Department will be discussing both rule interpretation and our implementation exceptions in the annual spring training.

Changes to the Original Rulemaking Proposal.

The on-site program has developed an alternative to the proposed rule implementing the examination process for sewage disposal business workers. The proposal that went to public comment suggested a one year delay from the present January 1, 2000 implementation date to a January 1, 2001 implementation date. The Department is proposing an additional one year delay in implementing the examination process to January 1, 2002.

Amend OAR 340-071-0600(1) as follows:

340-071-0600 SEWAGE DISPOSAL SERVICE

- (1) No person shall perform sewage disposal services or advertise or represent himself/herself as being in the business of performing such services without first obtaining a business license from the Department. Unless suspended or revoked at an earlier date, a Sewage Disposal Service business license issued pursuant to this rule expires on July 1 next following the date of issuance. Beginning January 1, 2002 ~~2000~~, in order to be licensed, the applicant for a license with an installer endorsement must provide evidence that at least one individual working for the business has passed a written examination to demonstrate a minimally adequate knowledge of the on-site rules found in OAR Chapter 340, Divisions 71 and 73, or attend a Department approved training session covering the rules. In addition, the person at the job-site who supervises or is responsible for the construction or installation of the system shall also pass the written test or attend the training session. The Department will provide all persons who pass the test or attend the training session with a wallet size card for this purpose. People required to be certified shall be able to readily produce evidence of certification when asked to do so by the Agent. Re-certification is required every five (5) years, and may be accomplished by attending pertinent training sessions, workshops, or through other methods acceptable to the Department.

On-Site Rule Advisory Committee Membership and Report

An advisory committee was used for the development of these proposed rule amendments. The committee consisted of twelve members representing various interests of the on-site industry. A total of three meetings were held, discussing fee proposals both generally and specifically and the other suggested rule amendments. Although the Committee reached consensus to approve the fee increases, the members were not requested to vote individually. The other rule amendments are being proposed essentially as discussed and approved by the committee. The development of the technical rule changes involving "conditions associated with saturation" began with a technical work committee representing academic interests, private consultants, engineers and DEQ staff.

Attached is a list of the rule advisory committee members.

**On-Site Rule Advisory Committee
1998-1999**

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John Smits

Smits and Associates
PO Box 116
Clackamas OR 97015-0116
Phone: 503-659-5623

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

DATE: June 1999

TO: Members, Natural Resource Subcommittee of Ways and Means

FROM: Stephanie Hallock, Interim Administrator, On-Site Sewage Program

RE: Process Improvements in the On-Site (Septic) Program

DEQ is requesting a fee increase in the septic tank program to support the activities in policy package #102. Fee payers will expect improvements in service for those higher fees. In Senate Bill 335 which passed both Houses this session, and through the efforts of two joint State/County Process Improvement Teams, DEQ has identified the following improvements to the program which will result from package #102, SB 335, and as identified by the State/County teams:


- Maximum of 5 week turnaround time for site evaluations/permits (running 5-8 weeks)
- Add service hours back to small field offices (Warrenton, Grants Pass, Baker City)
- Process variances within 30-45 days (currently 6-9 months)
- Make rules which streamline the process for approving new technologies
- Make rules which identify situations in which fees can be refunded
- Extend period of time for which a pumper/installer license is issued to more than one year; reduce paperwork
- Increase the amount of bond that pumpers/installers must carry to insure that homeowners are protected
- Develop a training and certification program, in conjunction with community colleges and other interested parties (like O2WA), so that pumpers/installers can deliver more services to homeowners in lieu of DEQ and the counties
- Connect DEQ and Counties by e-mail and improve communication linkages between DEQ and counties on permitting and site evaluation activities
- Conduct more training sessions and information exchange meetings between DEQ, Counties, and the on-site industry
- Increase enforcement against "maverick" pumpers and installers
- Increase ability to respond to homeowner and business complaints
- DEQ believes service is best delivered as close to homeowner as possible, to reach this goal provide more oversight of county programs, and work with more counties to take the program
- Make rules to relate annual compliance fees paid for holding tanks to "self-certification" of compliance, e.g. \$25 if records provided, \$200 if DEQ has to go out and inspect
- Review all paper processes for opportunities to eliminate/reduce and/or utilize electronic transfer
- Use results of S. Deschutes County demonstration project to enable siting of alternative systems on difficult sites

State of Oregon
Department of Environmental Quality Memorandum

**

Date: November 12, 1999

To: Environmental Quality Commission

From: Langdon Marsh 

Subject: Agenda Item F, Rule adoption for Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-site Program.

Background

In the fall of 1994, the Environmental Quality Commission (EQC, Commission) adopted rules that created a Technical Review Committee (TRC), charged with the responsibility to advise the Department of Environmental Quality (DEQ, Department) on the use of new or innovative technologies, materials or designs for on-site systems. The TRC was given the discretion of using performance standards to evaluate the efficiency and safety of new technologies, materials or designs, but written performance standards were never developed. **

Early in the TRC's history, it evaluated two new (to Oregon) materials that were designed for use in disposal trenches in lieu of stone. These materials were products from EZ Drain Co. and the Equalizer 24 (EQ-24) chamber from Infiltrator Systems, Inc. Absent written performance standards, the TRC used best professional judgement to recommend that the Department allow these materials to be used in disposal trenches with the same linear footage sizing requirements as for stone-filled trenches. The Department agreed with the TRC's recommendations and issued approvals to both companies for use of their products in Oregon.

In 1997, the EQ-24 from Infiltrator and the EZ Drain products were re-evaluated by the TRC at the request of the Department. Department staff established criteria by which these materials could be reviewed using the absorption facility/disposal trench standards in OAR Chapter 340, Division 071, and evaluated each of the materials using the same criteria. Through this re-evaluation process some modifications were made to product configuration for EZ-Drain, however sizing approvals for both products were left unchanged. The Department issued an amended approval (regarded as an order) for EZ Drain Co. that allowed modification to product configuration, but left the sizing specifications the same as the earlier approval.

In 1998, EZ Drain Co. filed a petition with the Circuit Court for Multnomah County for review of the Department's order in relation to the sizing of the EZ Drain product. In July 1999, the Court

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317 (voice)/(503) 229-6993 (TDD).

remanded the issue to the Department to adopt objective standards for determining the sizing of alternative products. The Court established timelines for adoption of these standards as described in Attachment H and Attachment I.

On September 15, 1999 the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rules to establish criteria the Department would use in evaluating new or innovative technologies and materials for use in on-site sewage treatment and disposal systems. The rulemaking included a proposal to establish a testing protocol to be used when scientific studies have not been conducted to demonstrate how the technology or material performs. The rulemaking also included two alternatives for implementing the rule in regards to the currently approved products (EZ Drain and Infiltrator).

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on October 1, 1999. The Hearing Notice and informational materials were mailed to the persons who asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on September 18th, September 24th and September 30th, 1999.

A Public Hearing was held October 15, 1999 with Sherman Olson serving as Presiding Officer. Written comment was received through October 19, 1999. During this time, a third alternative to implementing the rule for currently approved products was developed. The public comment period was then extended through November 5, 1999. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing and lists all the written comments received. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment D). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment E.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issue this Proposed Rulemaking Action is Intended to Address

The Department is requesting the Commission to adopt the proposed rules establishing criteria for evaluation of alternative on-site technologies and materials. The rules respond to the Court order for the Department to determine the standards to be used in evaluating alternative products; define how

protectiveness is measured against the standard stone trench; and to use the standard to re-evaluate all products which have applied for approval as well as using the standard to evaluate all future products.

Relationship to Federal and Adjacent State Rules

There are no federal requirements that are applicable. There is no adjacent state coordination of on-site rules and requirements. Each state establishes its on-site program independent of other states.

Authority to Address the Issue

The Commission is authorized under ORS 454.615 to adopt by rule standards that prescribe minimum requirements for the design and construction of subsurface sewage disposal systems and alternative sewage disposal systems, or parts thereof. The standards established by the Commission are applicable to innovative technologies and materials that are used within subsurface and alternative systems. Further, ORS 454.775 stipulates that it is the public policy of the state to encourage the development and application of alternatives, consistent with protection of the public health and safety and waters of the state.

The Commission also has broad authority under ORS 454.625 and ORS 468.020 to adopt such rules as it considers necessary and proper to accomplish its responsibilities.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

A short time frame was given by the court order to establish criteria. Staff developed draft rule language and presented it to a joint meeting of the On-Site Rules Advisory Committee and Technical Review Committee on August 26, 1999. The draft was reviewed and extensively discussed by the committee. Committee members made many excellent suggestions that staff considered and incorporated for improvement in the proposed language that went out to public comment.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

The proposed rule offers manufacturers of innovative technology or materials proposed to be used in on-site systems in Oregon one of two paths for approval consideration: **

- 1) a prescriptive approach, or
- 2) a performance evaluation approach.

The rule sets prescriptive standards for products that will be used as substitutes to the stone used in standard disposal trenches as well as a performance evaluation process both generically (for future products that are not substitutes for stone in disposal trenches) and specifically for products that are substitutes for stone in drainfield trenches.

The performance approach requires submittal of either:

- 1) peer reviewed, verifiable performance data gained elsewhere comparable to Oregon's conditions,
or
- 2) a peer reviewed, and acceptable performance evaluation completed within Oregon. The evaluation in Oregon for material used as substitutes for stone in drainfield trenches would consist of 18 systems to be evaluated and continue for a maximum of three years from the date of the last installation. At the conclusion of the evaluation the Department would determine if the product could be used in Oregon and any conditions that may be necessary.

The concept of performance standards is new to Oregon's on-site program. Current rules for residential on-site sewage disposal are primarily prescriptive. This allows for relatively quick response to permit requests and has resulted in a site approval rate of over 95%. Although the Department is familiar with performance criteria in other permitting processes, this proposed rule introduces a performance evaluation process for consideration of new products into a prescriptive set of rules. In developing this criteria, the Department received numerous concerns regarding performance evaluations. Commenters are concerned that this approach will not yield valid results. The Department understands the concerns, but continues to believe that a peer reviewed performance evaluation is the preferable method over a prescriptive approach for determining if a new product can provide the expectations of the manufacturer. For technologies and materials new to Oregon, prescriptive standards may be subjective, and may in fact hinder rather than promote innovative technologies. Performance standards, however, allow objective evaluation and in turn encourage innovation.

With regard to previously approved products being used as a substitute for stone in disposal trenches, three alternatives to OAR 340-071-0130(2) were presented for public comment. The Department is recommending adoption of Alternative 3. Alternatives 1 and 2 are described in Attachments J and K. There are two manufacturers with current approvals in Oregon; EZ Drain Co. and Infiltrator Systems Inc.

Alternative 1 would require that the Department review all previously approved products for compliance with the rule at the time the rule becomes effective. The approvals would either be amended if the product was found to be in compliance, or repealed.

Alternative 2 requires that previous approvals are repealed on July 1, 2000 unless the product is:

- 1) in compliance with the prescriptive standards, or
- 2) in the process of conducting a performance evaluation.

Alternative 3 requires that previous approvals expire on July 1, 2000 unless the product is:

- 1) in compliance with the prescriptive standards, or
- 2) in the process of conducting a performance evaluation. While engaged in the evaluation, currently approved products may use appropriate manufacturers recommended sizing, if the manufacturers have a warranty and financial assurance acceptable to the Department for all systems installed during this time.

The Department believes that all three alternative meet the requirements of the Court order. The Department is recommending Alternative 3 in that it provides a level playing field for both currently approved products; allows for products to be in conformance with the prescriptive standards or by a performance evaluation; and provides encouragement to evaluate performance by allowing sizing at a manufacturers recommendations while providing public health and environmental protection with financial assurances and warranties.

Summary of Significant Public Comment and Changes Proposed in Response

Comments were expressed that the proposal sets a standard of proof that is unreasonable, burdensome, or too costly and that performance testing protocols should be developed on a case by case basis. The intent of the proposed rule is to lay out a process for approval that is fair and reasonable for the manufacturers of a product and in so doing, to encourage the development of alternative and innovative materials for on-site systems. The Department agrees however that the performance evaluation process in some instances could be designed differently but still technically justifiable. The Department has modified the performance language to allow this.

Concerns were expressed that the previous approvals should be maintained while the affected manufacturers gain compliance for their products. The Department developed Alternative #2 and subsequently Alternative #3 to OAR 340-071-0130(2) both providing currently approved products an opportunity to market in Oregon while coming into compliance with the proposed rule and assuring protection of the public health by requiring a warranty and financial assurance. The Department agrees that recording a notice of system approval and warranty in the county land title records may be onerous. This notice requirement has been deleted.

There were comments indicating that a specific performance proposal for substitutes for drain media is unreasonable in that it would require performance testing in all parts of Oregon and all soil types. This rule has been clarified to indicate that 18 systems would be needed for evaluation of a given design in Oregon; three in each of the three major soil types the Department uses in Division 71 and in each of the two major climatic regimes in Oregon.

Other comments have been offered that reflect opinions general in nature, reflect concerns that the Department believes have been satisfied through modifications directly related to other comments, or suggest changes the Department will not be recommending.

Many of these comments are noted below. The following list is not intended to be all-inclusive, but to give a picture of the overall concerns expressed. Other significant comments and the Departments' responses are noted in Attachment D.

Summary of comments:

- The entire rule package fails to meet the standards imposed by the court order, and the prescriptive standard as revised in the original proposal violates the Court's order and will have the unnecessary impact of wiping out all alternative products. **
- Adoption of Alternative 1 would significantly increase the cost of developing new housing not served by public sewer systems.
- The rule undermines the provisions of SB 335, as it encourages the adoption of innovative technologies and the proposal does not.
- The rule package appears to be nothing more than an attempt to target and kill two already accepted alternative products.
- If an alternative product really needs to be studied, 3 years is not long enough, the conditions are infinitely variable and no manufacturer could warrant or bond the way this proposal would require.
- A committee should be put together to work on the rule over a 6 month period.

Summary of How the Proposed Rule Will Work and How it Will be Implemented **

The recommended rule would allow manufacturers of innovative technology or materials proposed to be used in on-site systems in Oregon to follow one of two paths for approval consideration:

- 1) a prescriptive approach, or
- 2) a performance evaluation approach.

The applicant would propose and the Department would concur which approach would best fit the needs of the product.

If the prescriptive approach was chosen, the applicant would inform the Department how the product would conform to the prescriptive standard; i.e. the applicant could propose the product be placed in a disposal trench in a manner where large voids would be filled with either stone or other substitute media and installed on foot for foot basis comparable to the standard stone trench.

The TRC may review the applicant's prescriptive proposal for the alternative product and make recommendations to the Department with regard to approval. The Department would review both the TRC recommendation (if a TRC review was necessary) and manufacturers' information and determine if the product can be approved for use in Oregon and under what conditions.

If the performance approach is preferable, the Department would request:

- ◆ peer reviewed, verifiable performance data gained elsewhere comparable to Oregon's conditions, or
- ◆ a peer reviewed, and acceptable performance evaluation completed within Oregon. The objectives of the evaluation would be outlined and then an evaluation study developed by the applicant, peer reviewed and then analyzed by the Department to determine if the objectives will be met.

At the conclusion of the evaluation, the TRC would review the performance of the alternative product and make recommendations to the Department with regard to approval. The Department would review both the TRC recommendation and manufacturers' information and determine if the product can be approved for use in Oregon and under what conditions.

Recommendation for Commission Action

It is recommended that the Commission adopt the rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-site Program as presented in Attachment A of the Department Staff Report. This recommendation includes Alternative 3 for implementing the rule in regard to currently approved products.

Attachments

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Legal Notice of Hearing
 - 2. Fiscal and Economic Impact Statement
 - 3. Land Use Evaluation Statement
 - 4. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
 - 5. Cover Memorandum from Public Notice
- C. Presiding Officer's Report on Public Hearing
- D. Department's Evaluation of Public Comment
- E. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment
- F. Advisory Committee Membership and Report

- G. Rule Implementation Plan
- H. Court Judgement
- I. Court Order relating to timelines
- J. Alternative 1 to OAR 340-071-0130(2)
- K. Alternative 2 to OAR 340-071-0130(2)

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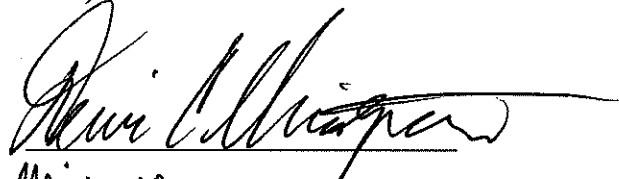
Reference Documents (available upon request)

Written Comments Received (listed in Attachment C)

Approved:

Section:

Division:


Mike Downs for MIKE LLEWELLYN

Report Prepared By: Sherman Olson

Phone: (503) 229-6443

Date Prepared: November 10, 1999

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Proposed Amendments to OAR Chapter 340, Division 071

Note: The underlined portion of text represent proposed additions to the rule. The ~~bracketed~~ portion of text represents proposed deletions to the rule.

Amend OAR 340-071-0100 as follows:

340-071-0100

Definitions

As used in OAR 340, Divisions 71, 72, and 73, unless otherwise specified:

- (1) "Absorption Facility" means a system of open-jointed or perforated piping, alternative distribution units, or other seepage systems for receiving the flow from septic tanks or other treatment facilities and designed to distribute effluent for oxidation and absorption by the soil within the zone of aeration.
- (2) "Active Sand Dune" means wind drifted ridges and intervening valleys, pockets, and swales of sand adjacent to the beach. The sand is grayish-brown (color value of four (4) or more), with little or no horizon, color, or textured differences. Active dunes are either bare of vegetation or lack sufficient vegetation to prevent blowing of sand.
- (3) "Aerobic Sewage Treatment Facility" means a sewage treatment plant which incorporates a means of introducing air and oxygen into the sewage so as to provide aerobic biochemical stabilization during a detention period. Aerobic sewage treatment facilities may include anaerobic processes as part of the treatment system. Mechanical Oxidation Sewage Treatment Facility means an aerobic treatment facility.
- (4) "Aerobic System" means an alternative system consisting of a septic tank or other treatment facility, an aerobic sewage treatment facility and an absorption facility, designed to provide a level of treatment before disposal.
- (5) "Agent" means the Director or that person's authorized representative.
- (6) "Alteration" means expansion and/or change in location of an existing system, or any part thereof.

(7) "Alternative System" means any Commission approved on-site sewage disposal system identified within this division, for use in lieu of the standard subsurface system.

(8) "Approved Material" means construction items that have been reviewed and accepted for use by the Department.

(9) "Approved Criteria" means methods of design or construction that have been reviewed by the Technical Review Committee (TRC) and accepted for use by the Department.

(10) "ASTM" means American Society of Testing Materials.

(11) "Authorization Notice" means a written document issued by the Agent which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made.

(12) "Authorized Representative" means the staff of the Department of Environmental Quality or staff of the local governmental unit performing duties for and under agreement with the Department of Environmental Quality.

(13) "Automatic Siphon" means a hydraulic device designed to rapidly discharge the contents of a dosing tank between predetermined water or sewage levels.

(14) "Bedroom" means any room within a dwelling which is accepted as such by the State of Oregon Department of Commerce building codes representative or the local authorized building official having jurisdiction.

(15) "Biochemical Oxygen Demand (BOD)" means a measure of the decomposable organic matter in wastewater. It is used as an indication of wastewater strength. For the purpose of these rules, all references to BOD shall be for the five day BOD.

(16) "Black Waste" means human body wastes including feces, urine, other extraneous substances of body origin and toilet paper.

(17) "Capping Fill System" means an alternative system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into the natural soil below a soil cap of specified depth and texture.

(18) "Cesspool" means a lined pit which receives raw sewage, allows separation of solids and liquids, retains the solids and allows liquids to seep into the surrounding soil through perforations in the lining.

(19) "Chemical Recirculating Toilet Facility" means a toilet facility wherein black wastes are deposited and carried from the bowl by a combination of liquid waste and water which has been chemically treated and filtered.

(20) "Chemical Toilet Facility" means a non-flushing, non-recirculating toilet facility wherein black wastes are deposited directly into a chamber containing a solution of water and chemical.

(21) "Clayey Soil" means mineral soil that is over forty (40) percent clay that shrinks and develops wide cracks when dry and swells and shears when wet forming slickensides and wedge-shaped structure. Clayey soil is very hard or extremely hard when dry, very firm when moist, and very sticky and very plastic when wet.

(22) "Claypan" means a dense, compact clay layer in the subsoil. It has a much higher clay content than the overlying soil horizon from which it is separated by an abrupt boundary. Claypans are hard when dry and very sticky and very plastic when wet. They impede movement of water and air and growth of plant roots.

(23) "Combustion Toilet Facility" means a toilet facility wherein black wastes are deposited directly into a combination chamber for incineration.

(24) "Commercial Facility" means any structure or building, or any portion thereof, other than a single-family dwelling.

(25) "Commission" means the Environmental Quality Commission.

(26) "Community System" means an on-site system which will serve more than one (1) lot or parcel or more than one (1) condominium unit or more than one (1) unit of a planned unit development.

(27) "Completed Application" means one in which the application form is completed in full, is signed by the owner or that person's authorized representative, and is accompanied by all required exhibits and required fee.

(28) "Conditions Associated With Saturation" means:

(a) Reddish brown or brown soil horizons with gray (chromas of two (2) or less) and red or yellowish red mottles; or

(b) Gray soil horizons, or gray soil horizons with red, yellowish red, or brown mottles; or

(c) Dark colored highly organic soil horizons; or

(d) Soil profiles with concentrations of soluble salt at or near the ground surface.

(29) "Confining Layer" means a layer associated with an aquifer that because of its low permeability does not allow water to move through it perceptibly under head differences occurring in the groundwater system.

(30) "Construction" includes installation of a new system or part thereof, or the alteration, repair or extension of an existing system. The grading, excavating, and earth-moving work connected with installation, alteration, or repair of a system, or part thereof, is considered a part of system construction.

(31) "Conventional Sand Filter" means a filter with two (2) feet or more of sand filter media designed to chemically and biologically process septic tank or other treatment unit effluent from a pressure distribution system operated on an intermittent basis. **

(32) "Curtain Drain" means a groundwater interceptor that is installed as a trench with a minimum width of twelve (12) inches and extending into the layer that limits effective soil depth. It has a perforated pipe installed along the bottom of, and the length of the trench and has a minimum of twelve (12) inches of drain media over the drainline and filter fabric placed over the drain media. The curtain drain must meet the setbacks from septic tanks and disposal areas as required in Table 1.

(33) "Cut-Manmade" means a land surface resulting from mechanical land shaping operations where the modified slope is greater than fifty (50) percent, and the depth of cut exceeds thirty (30) inches.

(34) "Department" means the Department of Environmental Quality.

(35) "Design Criteria" means the criteria used in designing on-site sewage disposal systems including, but not necessarily limited to, dimensions, geometry, type of materials, size of drain media or filter media, disposal field sizing, depth, grade or slope, hydraulic loading rate or any other factor relevant to the successful operation of the system. It does not include disposal area siting criteria. **

(36) "Director" means the Director of the Department of Environmental Quality.

(37) "Disposal Area" means the entire area used for underground dispersion of the liquid portion of sewage including the area designated for the future replacement system. It may consist of a seepage pit or of a disposal field or of a combination of the two. It may also consist of a cesspool, seepage bed, bottomless sand filter, or evapotranspiration-absorption system.

(38) "Disposal Field" means a system of disposal trenches or a seepage trench or system of seepage trenches.

(39) "Disposal Trench" means a ditch or a trench installed into natural soil, permeable saprolite or diggable bedrock, with vertical sides and substantially flat bottom with a minimum of twelve (12) inches of clean, coarse drain media or other material that is used in these rules into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six (6) inches of soil. **

(40) "Distribution Box" means a watertight structure which receives septic tank or other treatment facility effluent and distributes it concurrently into two (2) or more header pipes leading to the disposal area. (See OAR 340-073-0035).

(41) "Distribution Pipe" means an open-jointed or perforated pipe used in the dispersion of septic tank or other treatment facility effluent into disposal trenches, seepage trenches, or seepage beds.

(42) "Distribution Unit" means a distribution box, dosing tank, diversion valve or box, header pipe, or other means of transmitting septic tank or other treatment unit effluent from the effluent sewer to the distribution pipes.

(43) "Diversion Valve" means a watertight structure which receives septic tank or other treatment facility effluent through one (1) inlet, distributes it to two (2) outlets, only one (1) of which is utilized at a given time (See OAR 340-073-0045).

(44) "Dosing Tank" means a watertight receptacle placed after a septic tank or other treatment facility equipped with an automatic siphon or pump.*

(45) "Dosing Septic Tank" means a unitized device performing functions of both a septic tank and a dosing tank.

(46) "Drainfield" means a Disposal Field.

(47) "Drain Media" means clean washed gravel, clean crushed rock, or other **loose types of natural or synthetic aggregate [media]** approved by the **Director, [Director's Designee, for the purpose of distributing]** **used in the distribution of** effluent. ~~*[When gravel or crushed rock is used it]*~~ **It** shall have a minimum size of three quarters (3/4) inches and a maximum size of two and one-half (2-1/2) inches. The material shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.

(48) "Dwelling" means any structure or building, or any portion thereof which is used, intended, or designed to be occupied for human living purposes including, but not limited to: houses, houseboats, boathouses, mobile homes, travel trailers, hotels, motels, and apartments. *

(49) "Effective Seepage Area" means the sidewall area within a disposal trench or a seepage trench from the bottom of the trench to a level two (2) inches above the distribution pipes, or the sidewall area of any cesspool, seepage pit, unsealed earth pit privy, or gray water waste disposal sump seepage chamber; or the bottom area of a pressurized soil absorption facility installed in soil as defined in section ~~*[(138)]*~~ **(139)** this rule.

(50) "Effective Soil Depth" means the depth of soil material above a layer that impedes movement of water, air, and growth of plant roots. Layers that differ from

overlying soil material enough to limit effective soil depth are hardpans, claypans, fragipans, compacted soil, bedrock, saprolite, and clayey soil.

(51) "Effluent Filter" means an effluent treatment device installed on the outlet of a septic tank which is designed to prevent the passage of suspended matter larger than one-eighth inch in size.

(52) "Effluent Lift Pump" means a pump used to lift septic tank or other treatment facility effluent to a higher elevation. (See OAR 340-073-0055).

(53) "Effluent Sewer" means that part of the system of drainage piping that conveys partially treated sewage from a septic tank or other treatment facility into a distribution unit or an absorption facility. (See OAR 340-073-0060).

(54) "Emergency Repair" means repair of a failing system where immediate action is necessary to relieve a situation in which sewage is backing up into a dwelling or building, or repair of a broken pressure sewer pipe. It does not include the construction of new or additional absorption facilities, but would allow use of the septic tank as a temporary holding tank until such time as new or additional absorption facilities could be constructed pursuant to an issued permit.

(55) "Equal Distribution" means the distribution of effluent to a set of disposal trenches in which each trench receives effluent in equivalent or proportional volumes.

(56) "Escarpment" means any naturally occurring slope greater than fifty (50) percent which extends vertically six (6) feet or more as measured from toe to top, and which is characterized by a long cliff or steep slope which separates two (2) or more comparatively level or gently sloping surfaces, and may intercept one (1) or more layers that limit effective soil depth.

(57) "Evapotranspiration-Absorption (ETA) System" means an alternative system consisting of a septic tank or other treatment facility, effluent sewer and a disposal bed or disposal trenches, designed to distribute effluent for evaporation, transpiration by plants, and by absorption into the underlying soil.

(58) "Existing On-Site Sewage Disposal System" means any installed on-site sewage disposal system constructed in conformance with the rules, laws and local ordinances in effect at the time of construction, or which would have conformed substantially with system design provided for in Commission, State Board of Health or State Health Division rules.

(59) "Existing System" means "Existing On-Site Sewage Disposal System."

(60) "Failing System" means any system which discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters.

(61) "Family Member" means any one (1) of two (2) or more persons related by blood or legally.

(62) "Filter Fabric" means a woven or spun-bonded sheet material used to impede or prevent the movement of sand, silt and clay into drain media. A specification for filter fabric is found in OAR 340-073-0041.

(63) "Five-Day Biochemical Oxygen Demand (BOD5)" means the quantity of oxygen used in the biochemical oxidation of organic matter in five days at twenty (20) degrees centigrade under specified conditions and reported as milligrams per liter (mg/L).

(64) "Fragipan" means a loamy subsurface horizon with high bulk density relative to the horizon above, seemingly cemented when dry, and weakly to moderately brittle when moist. Fragipans are mottled and low in organic matter. They impede movement of water, air, and growth of plant roots.

(65) "General Permit" means a permit issued to a category of qualifying sources pursuant to OAR 340-045-0033, in lieu of individual permits being issued to each source.

(66) "Governmental Unit" means the state or any county, municipality, or political subdivision, or any agency thereof.

(67) "Grade" means the rate of fall or drop in inches per foot or percentage of fall of a pipe.

(68) "Gray Water" means household sewage other than "black wastes", such as bath water, kitchen waste water and laundry wastes.

(69) "Gray Water Waste Disposal Sump" means a receptacle or series of receptacles designed to receive hand-carried gray water for disposal into the soil.

(70) "Grease and Oils" means a component of sewage typically originating from food stuffs, consisting of compounds of alcohol or glycerol with fatty acids.

(71) "Groundwater Interceptor" means any natural or artificial groundwater or surface water drainage system including agricultural drain tile, cut banks, and ditches which intercept and divert groundwater or surface water from the area of the absorption facility.

(72) "Hardpan" means a hardened layer in soil caused by cementation of soil particles with either silica, calcium carbonate, magnesium carbonate, or iron and/or organic matter. The hardness does not change appreciably with changes in moisture content. Hardpans impede movement of water and air and growth of plant roots.

(73) "Header Pipe" means a tight jointed part of the sewage drainage conduit which receives septic tank effluent from the distribution box, or drop box, or effluent sewer and conveys it to the disposal area.

(74) "Headwall" means a steep slope at the head or upper end of a land slump block or unstable landform. **

(75) "Holding Tank" means a watertight receptacle designed to receive and store sewage to facilitate disposal at another location.

(76) "Holding Tank System" means an alternative system consisting the combination of a holding tank, service riser and level indicator (alarm), designed to receive and store sewage for intermittent removal for disposal at another location.

(77) "Hydrasplitter" means a hydraulic device to proportion flow under pressure by the use of one or more orifices. Also may be referred to as a Hydrosplitter.

(78) "Incinerator Toilet Facility" means "Combustion Toilet Facility".

(79) "Individual System" means a system that is not a community system.

(80) "Individual Water Supply" means a source of water and a distribution system which serves a residence or user for the purpose of supplying water for drinking, culinary, or household uses and which is not a public water supply system. *

(81) "Industrial Waste" means any liquid, gaseous, radioactive, or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade, or business, or from the development or recovery of any natural resources.

(82) "Intermittent Sand Filter" means a conventional sand filter.

(83) "Intermittent Stream" means any surface public water or groundwater interceptor that continuously flows water for a period of greater than two months in any one year, but not continuously for that year.

(84) "Invert" is the lowest portion of the internal cross section of a pipe or fitting.

(85) "Large System" means any on-site system with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons.

(86) "Lateral Pipe" means "Distribution Pipe". **

(87) "Mechanical Sewage Treatment Facility" means an aerobic sewage treatment facility.

(88) "Nonwater-Carried Waste Disposal Facility" means any toilet facility which has no direct water connection, including pit privies, vault privies and portable toilets.

(89) "Occupant" means any person living or sleeping in a dwelling.

(90) "On-Site Sewage Disposal System" means any existing or proposed on-site sewage disposal system including, but not limited to a standard subsurface, alternative, experimental or nonwater-carried sewage disposal system, installed or proposed to be installed on land of the owner of the system or on other land as to which the owner of the system has the legal right to install the system. This does not include systems that are designed to treat and dispose of Industrial Waste as defined in OAR Chapter 340, Division 45.

(91) "Operating Permit" means a WPCF permit issued pursuant to these rules.

(92) "Owner" means any person who alone, or jointly, or severally with others:

(a) Has legal title to any single lot, dwelling, dwelling unit, or commercial facility;
or

(b) Has care, charge, or control of any real property as agent, executor, executrix, administrator, administratrix, trustee, commercial lessee, or guardian of the estate of the holder of legal title; or

(c) Is the contract purchaser of real property.

NOTE: Each such person as described in subsections (b) and (c) of this section, thus representing the legal title holder, is bound to comply with the provisions of these rules as if he were the legal title holder.

(93) "Peer Review" means a review by members of a scientific community recognized as experts in the field of study and well rehearsed with scientific principles and experimentation. At a minimum, the review shall be performed by three members.

~~[[93]]~~ (94) "Permanent Groundwater Table" means the upper surface of a saturated zone that exists year-round. The thickness of the saturated zone, and, as a result, the elevation of the permanent groundwater table may fluctuate as much as twenty (20) feet or more annually; but the saturated zone and associated permanent groundwater table will be present at some depth beneath land surface throughout the year.

~~[[94]]~~ (95) "Permit" means the written document issued and signed by the Agent which authorizes the permittee to install a system or any part thereof, which may also require operation and maintenance of the system.

[[95]] (96) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

[[96]] (97) "Pollution" or "Water Pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

[[97]] (98) "Portable Toilet" means any self contained chemical toilet facility that is housed within a portable toilet shelter and includes but is not limited to construction type chemical toilets.

[[98]] (99) "Portable Toilet Shelter" means any readily relocatable structure built to house a toilet facility.

[[99]] (100) "Pressure Distribution Lateral" means piping and fittings in pressure distribution systems which distribute septic tank or other treatment unit effluent to drain media through small diameter orifices.

[[100]] (101) "Pressure Distribution Manifold" means piping and fittings in a pressure distribution system which supply effluent from pressure transport piping to pressure distribution laterals.

[[101]] (102) "Pressure Distribution System" means any system designed to uniformly distribute septic tank or other treatment unit effluent under pressure in an absorption facility or sand filter.

[[102]] (103) "Pressure Transport Piping" means piping which conveys sewage effluent from a septic tank or other treatment or distribution unit by means of a pump or siphon.

[[103]] (104) "Pretreatment" means the wastewater treatment which takes place prior to discharging to any component of an on-site sewage treatment and disposal system, including but not limited to, pH adjustment, oil and grease removal, BOD5 and TSS reduction, screening and detoxification.

[[104]] (105) "Prior Approval" means a written approval for on-site sewage disposal, for a specific lot, issued prior to January 1, 1974.

~~(105)~~ (106) "Prior Construction Permit" means a subsurface sewage disposal system construction permit issued prior to January 1, 1974, by a county that had an ordinance requiring construction permits for subsurface sewage disposal systems.

~~(106)~~ (107) "Privy" means a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a pit or vault in the ground into which human waste falls.

~~(107)~~ (108) "Projected Daily Sewage Flow" means the peak quantity of sewage a facility is forecast to produce on a daily basis upon which system sizing and design is based. It may be referred to as design flow. The Projected Daily Sewage Flow allows for a safety margin and reserve capacity for the system during periods of heavy use.

~~(108)~~ (109) "Public Health Hazard" means a condition whereby there are sufficient types and amounts of biological, chemical or physical, including radiological, agents relating to water or sewage which are likely to cause human illness, disorders or disability. These include, but are not limited to, pathogenic viruses, bacteria, parasites, toxic chemicals, and radioactive isotopes.

~~(109)~~ (110) "Public Waters" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

~~(110)~~ (111) "Recirculating Gravel Filter (RGF)" means a type of gravel filter wastewater treatment system which utilizes an effluent recycle system where a portion of the filtered effluent is mixed with septic tank effluent in a ** recirculation/dilution tank and redistributed to the filter, in conformance with these rules.

~~(111)~~ (112) "Recirculating Gravel Filter System" means a Recirculating Gravel Filter and a absorption facility used to treat and dispose of sewage.

~~(112)~~ (113) "Redundant Disposal Field System" means a system in which two complete disposal systems are installed, the disposal trenches of each system alternate with each other and only one system operates at a given time.

~~(113)~~ (114) "Repair" means installation of all portions of a system necessary to eliminate a public health hazard or pollution of public waters created by a failing system. Major repair is defined as the replacement of the soil absorption system. Minor repair is defined as the replacement of a septic tank, broken pipe, or any part of the on-site sewage disposal system except the soil absorption system.

~~(114)~~ (115) "Residential Strength Wastewater" means the primary sewage effluent from a septic tank which does not typically exceed the following parameters: Five-Day Biochemical Oxygen Demand (BOD5) of 300 mg/L; Total Suspended Solids (TSS) of 150 mg/L; Total Kjeldahl Nitrogen (TKN) of 150 mg/L; and Oil & Grease of 25 mg/L. Other contaminants may also be present in the wastewater, however, they shall not exceed the concentrations or quantities normally found in residential sewage. Effluent parameters are to be measured using approved Standard Method or EPA procedures.

~~(115)~~ (116) "Sand Filter Media" means a medium sand or other approved material used in a conventional sand filter. The media shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system. The particle size distribution of the media shall be determined through a sieve analysis conducted in accordance with ASTM C-117 and ASTM C-136. The media shall comply with the following particle size distribution: 100 percent passing the 3/8 inch sieve, 95 percent to 100 percent passing the No. 4 sieve, 80 percent to 100 percent passing the No. 8 sieve, 45 percent to 85 percent passing the No. 16 sieve, 15 percent to 60 percent passing the No. 30 sieve, 3 percent to 15 percent passing the No. 50 sieve, and 4 percent or less passing the No. 100 sieve.

~~(116)~~ (117) "Sand Filter Surface Area" means the area of the level plane section in the medium sand horizon of a conventional sand filter located two (2) feet below the bottom of the drain media containing the pressurized distribution piping.

~~(117)~~ (118) "Sand Filter System" means the combination of septic tank or other treatment unit, dosing system with effluent pump and controls, or dosing siphon, piping and fittings, sand filter, and absorption facility used to treat and dispose of sewage.

~~(118)~~ (119) "Sanitary Drainage System" means that part of the system of drainage piping that conveys untreated sewage from a building or structure to a septic tank or other treatment facility, service lateral at the curb or in the street or alley, or other disposal terminal holding human or domestic sewage. The sanitary drainage system consists of a building drain or building drain and building sewer.

~~(119)~~ (120) "Saprolite" means weathered material underlying the soil that grades from soft thoroughly decomposed rock to rock that has been weathered sufficiently so that it can be broken in the hands or cut with a knife. It does not include hard bedrock or hard fractured bedrock. It has rock structure instead of soil structure.

~~(120)~~ (121) "Saturated Zone" means a three (3) dimensional layer, lens, or other section of the subsurface in which all open spaces including joints, fractures, interstitial voids, pores, etc. are filled with groundwater. The thickness and extent

of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge or discharge.

~~[(121)]~~ **(122)** "Scum" means a mass of sewage solids floating at the surface of sewage which is buoyed up by entrained gas, grease, or other substances.

~~[(122)]~~ **(123)** "Seepage Area" means "Effective Seepage Area".

~~[(123)]~~ **(124)** "Seepage Bed" means an absorption system having disposal trenches wider than three (3) feet.

~~[(124)]~~ **(125)** "Seepage Pit" means a "cesspool" which has a treatment facility such as a septic tank ahead of it.

~~[(125)]~~ **(126)** "Seepage Trench System" means a system with disposal trenches with more than six (6) inches of drain media below the distribution pipe.

~~[(126)]~~ **(127)** "Self-Contained Nonwater-Carried Waste Disposal Facility" includes, but is not limited to, vault privies, chemical toilets, combustion toilets, recirculating toilets, and portable toilets, in which all waste is contained in a watertight receptacle.

~~[(127)]~~ **(128)** "Septage" means the domestic liquid and solid sewage pumped from septic tanks, cesspools, holding tanks, vault toilets, chemical toilets or other similar domestic sewage treatment components or systems and other sewage sludge not derived at sewage treatment plants.

~~[(128)]~~ **(129)** "Septic Tank" means a watertight receptacle which receives sewage from a sanitary drainage system, is designed to separate solids from liquids, digest organic matter during a period of detention, and allow the liquids to discharge to a second treatment unit or to a soil absorption facility. (See OAR 340-073-0025 and 340-073-0030).

~~[(129)]~~ **(130)** "Septic Tank Effluent" means partially treated sewage which is discharged from a septic tank.

~~[(130)]~~ **(131)** "Serial Distribution" means the distribution of effluent to a set of disposal trenches constructed at different elevations in which one (1) trench at a time receives effluent in consecutive order beginning with the uppermost trench, by means of a drop box, a serial overflow or other approved distribution unit. The effluent in an individual trench must reach a level of two (2) inches above the distribution pipe before effluent is distributed to the next lower trench.

~~[(131)]~~ **(132)** "Sewage" means water-carried human and animal wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration, surface waters, or industrial waste as may be present.

~~132~~ **133** "Sewage Disposal Service" means:

- (a) The construction of on-site sewage disposal systems (including the placement of portable toilets), or any part thereof; or
- (b) The pumping out or cleaning of on-site sewage disposal systems (including portable toilets), or any part thereof; or
- (c) The disposal of material derived from the pumping out or cleaning of on-site sewage disposal systems (including portable toilets); or
- (d) Grading, excavating, and earth-moving work connected with the operations described in subsection (a) of this section.

~~133~~ **134** "Sewage Stabilization Pond" means a pond designed to receive the raw sewage flow from a dwelling or other building and retain that flow for treatment without discharge.

~~134~~ **135** "Slope" means the rate of fall or drop in feet per one hundred (100) feet of the ground surface. It is expressed as percent of grade.

~~135~~ **136** "Soil Permeability Rating" refers to that quality of the soil that enables it to transmit water or air, as outlined in the United States Department of Agriculture Handbook, Number 18, entitled Soil Survey Manual.

~~136~~ **137** "Soil Separate" means the size of soil particles according to Table 7.

~~137~~ **138** "Soil Texture" means the amount of each soil separate in a soil mixture. Field methods for judging the texture of a soil consist of forming a cast of soil, both dry and moist, in the hand and pressing a ball of moist soil between thumb and finger:

(a) The major textural classifications are defined as follows. (See Table 6):

(A) Sand: Individual grains can be seen and felt readily. Squeezed in the hand when dry, this soil will fall apart when the pressure is released. Squeezed when moist, it will form a cast that will hold its shape when the pressure is released, but will crumble when touched;

(B) Loamy Sand: Consists primarily of sand, but has enough silt and clay to make it somewhat cohesive. The individual sand grains can readily be seen and felt. Squeezed when dry, the soil will form a cast which will readily fall apart, but if squeezed when moist, a cast can be formed that will withstand careful handling without breaking;

(C) Sandy Loam: Consists largely of sand, but has enough silt and clay present to give it a small amount of stability. Individual sand grains can be readily seen and felt. Squeezed in the hand when dry, this soil will readily fall apart when the

pressure is released. Squeezed when moist, it forms a cast that will not only hold its shape when the pressure is released, but will withstand careful handling without breaking. The stability of the moist cast differentiates this soil from sand;

(D) Loam: Consists of an even mixture of the different sizes of sand and of silt and clay. It is easily crumbled when dry and has a slightly gritty, yet fairly smooth feel. It is slightly plastic. Squeezed in the hand when dry, it will form a cast that will withstand careful handling. The cast formed of moist soil can be handled freely without breaking;

(E) Silt Loam: Consists of a moderate amount of fine grades of sand, a small amount of clay, and a large quantity of silt particles. Lumps in a dry, undisturbed state appear quite cloddy, but they can be pulverized readily; the soil then feels soft and floury. When wet, silt loam runs together in puddles. Either dry or moist, casts can be handled freely without breaking. When a ball of moist soil is passing between thumb and finger, it will not press out into a smooth, unbroken ribbon, but will have a broken appearance;

(F) Clay Loam: Consists of an even mixture of sand, silt, and clay, which breaks into clods or lumps when dry. When a ball of moist soil is pressed between the thumb and finger, it will form a thin ribbon that will readily break, barely sustaining its own weight. The moist soil is plastic and will form a cast that will withstand considerable handling;

(G) Silty Clay Loam: Consists of a moderate amount of clay, a large amount of silt, and a small amount of sand. It breaks into moderately hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch wire can be formed between thumb and finger that will sustain its weight and will withstand gentle movement;

(H) Silty Clay: Consists of even amounts of silt and clay and very small amounts of sand. It breaks into hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch or less sized wire formed between thumb and finger will withstand considerable movement and deformation;

(I) Clay: Consists of large amounts of clay and moderate to small amounts of sand. It breaks into very hard clods or lumps when dry. When moist, a thin, long ribbon or one-sixteenth (1/16) inch wire can be molded with ease. Fingerprints will show on the soil, and a dull to bright polish is made on the soil by a shovel.

(b) These and other soil textural characteristics are also defined as shown in the United States Department of Agriculture Textural Classification Chart which is hereby adopted as part of these rules. This textural classification chart is based on the Standard Pipette Analysis as defined in the United States Department of Agriculture, Soil Conservation Service Soil Survey Investigations Report No. 1. (See Table 6).

~~(138)~~ (139) "Soil With Rapid or Very Rapid Permeability" means:

(a) Soil which contains thirty-five (35) percent or more of coarse fragments two (2) millimeters in diameter or larger by volume with interstitial soil of sandy loam texture or coarser as defined in subsection ~~(137)~~ **(138)** (a) of this rule and as classified in Soil Textural Classification Chart, Table 6; or

(b) Coarse textured soil (loamy sand or sand as defined in section ~~(137)~~ **(138)** of this rule and as classified in Soil Textural Classification Chart, Table 6); or

(c) Stones, cobbles, gravel, and rock fragments with too little soil material to fill interstices larger than one (1) millimeter in diameter.

~~(139)~~ **(140)** "Split Waste Method" means a procedure where "black waste" sewage and "gray water" sewage from the same dwelling or building are disposed of by separate systems.

~~(140)~~ **(141)** "Stabilized Dune" means a sand dune that is similar to an active dune except vegetative growth is dense enough to prevent blowing of sand. The surface horizon is either covered by a mat of decomposed and partially decomposed leaves, needles, roots, twigs, moss, etc., or to a depth of at least six (6) inches contains roots and has a color value of three (3) or less.

~~(141)~~ **(142)** "Standard Subsurface System" means an on-site sewage disposal system consisting of a septic tank, distribution unit and absorption facility constructed in accordance with OAR 340-071-0220, using six (6) inches of drain media below the distribution pipe, and maintaining not less than eight (8) feet of undisturbed earth between disposal trenches.

~~(142)~~ **(143)** "Steep Slope System" means a seepage trench system installed on slopes greater than thirty (30) percent and less than or equal to forty-five (45) percent, pursuant to these rules.

~~(143)~~ **(144)** "Subsurface Sewage Disposal" means the physical, chemical or bacteriological breakdown and aerobic treatment of sewage in the unsaturated zone of the soil above any temporarily perched groundwater body.

~~(144)~~ **(145)** "Subsurface Disposal System" means a cesspool or the combination of a septic tank or other treatment unit and effluent sewer and absorption facility.

~~(145)~~ **(146)** "Surface Waters" means public waters, but excludes underground waters and wells.

~~(146)~~ **(147)** "System" means "On-Site Sewage Disposal System".

~~(147)~~ **(148)** "Temporary Groundwater Table" means the upper surface of a saturated zone that exists only on a seasonal or periodic basis. Like a permanent groundwater table, the elevation of a temporary groundwater table may fluctuate.

However, a temporary groundwater table and associated saturated zone will dissipate (dry up) for a period of time each year.

~~[(148)]~~ **(149)** "Test Pit" means an open pit dug to sufficient size and depth to permit thorough examination of the soil to evaluate its suitability for subsurface sewage disposal.

(150) "Third-Party" means a consulting firm, research institute, academic institute, or other similar entities with no vested interest in the outcome of test results of a material or technology under performance evaluation.

~~[(149)]~~ **(151)** "Tile Dewatering System" means an alternative system in which the absorption facility is encompassed with field collection drainage tile, the purpose of which is to reduce and control a groundwater table to create a zone of aeration below the bottom of the absorption facility.

~~[(150)]~~ **(152)** "Toilet Facility" means a fixture housed within a toilet room or shelter for the purpose of receiving black waste.

~~[(151)]~~ **(153)** "Total Kjeldahl Nitrogen (TKN)" means the combination of ammonia and organic nitrogen but does not include nitrate and nitrite nitrogen.

~~[(152)]~~ **(154)** "Total Suspended Solids" (TSS) means solids in sewage that can be removed readily by standard filtering procedures in a laboratory and reported as milligrams per liter (mg/L).

~~[(153)]~~ **(155)** "Treatment" means the alteration of the quality of wastewaters by physical, chemical or biological means or combination thereof such that tendency of said wastes to cause degradation in water quality, risk to public health or degradation of environmental conditions is reduced.

~~[(154)]~~ **(156)** "Underdrain Media" means that material placed under the sand filter media in a sand filter. It shall be clean, washed pea gravel with 100 percent passing the 1/2 inch sieve, 18 to 100 percent passing the 1/4 inch sieve, 5 to 75 percent passing the No. 4 sieve, 24 percent or less passing the No. 10 sieve, 2 percent or less passing the No. 16 sieve, and 1 percent or less passing the No. 100 sieve.

~~[(155)]~~ **(157)** "Unstable Landforms" means areas showing evidence of mass downslope movement such as debris flow, landslides, rockfall, and hummock hill slopes with undrained depressions upslope. Unstable landforms may exhibit slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, and telephone poles which appear tilted; or tree trunks which bend uniformly as they enter the ground. Active sand dunes are unstable landforms.

~~[(156)]~~ **(158)** "Vertisols" means a mineral soil characterized by a high content of swelling-type clays which in dry seasons, causes the soils to develop deep wide cracks.

~~[(157)]~~ **(159)** "WPCF Permit" means a Water Pollution Control Facilities Permit which has been issued pursuant to OAR Chapter 340, Division 14 and OAR 340-071-0162.

~~[(158)]~~ **(160)** "Wastewater" means Sewage.

~~[(159)]~~ **(161)** "Zone of Aeration" means the unsaturated zone that occurs below the ground surface and above the point at which the upper limit of the water table exists.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.605 & ORS 454.615

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 6-1988, f. & cert. ef. 3-17-88; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97

Amend OAR 340-071-0220(1)(c) as follows:

Standard Subsurface Systems

OAR 340-071-0220(1)(c)

(c) Soil with rapid or very rapid permeability shall be thirty six (36) inches or more below the ground surface. A minimum eighteen (18) inch separation shall be maintained between soil with rapid or very rapid permeability and the bottom of disposal trenches.

EXCEPTION: Sites may be approved with no separation between the bottom of disposal trenches and soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (a) and (b), with rapid or very rapid permeability, and disposal trenches may be placed into soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (a) and (b), with rapid or very rapid permeability if any of the following conditions occur:

- 1- A confining layer occurs between the bottom of disposal trenches and the groundwater table. A minimum six (6) inch separation shall be maintained between the bottom of disposal trenches and the top of the confining layer; or
- 2- A layer of non-gravelly (less than 15% gravel) soil with sandy loam texture or finer at least eighteen (18) inches thick occurs between the bottom of the disposal trenches and the groundwater table; or

-3- The projected daily sewage flow does not exceed a loading rate of four hundred fifty (450) gallons per acre per day.

Amend OAR 340-071-0275(2) and (3) and (4)(d)(A) as follows:

Pressurized Distribution Systems

340-071-0275(2)

(2) Except as provided in OAR 340-71-220(1)(c), pressurized distribution systems shall be used where depth to soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (a) and (b) is less than thirty-six (36) inches and the minimum separation distance between the bottom of the disposal trench and soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (a) and (b) is less than eighteen (18) inches.

340-071-0275(3)

0275(3) Pressurized distribution systems installed in soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (a) and (b) in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:

340-071-0275(4)(d)

(d) Seepage Bed Construction:
(A) Seepage beds may only be used in soil as defined in OAR 340-71-100 ~~[(138)]~~ **(139)** (b) as an alternative to the use of disposal trenches, for flows less than or equal to 600 gallons per day;

Amend OAR 340-071-0290(3)(c) as follows:

Conventional Sand Filter Systems

340-71-290(3)(c) **

(c) Sand filters installed in soils as defined in OAR 340-71-100 ~~[(138)]~~ **(139)**, in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:

Amend OAR 340-071-0295(3)(d) as follows:

Conventional Sand Filter Design and Construction

340-71-295(3)(d)

(d) Where drain media is used at the base of the filter, it shall be covered by a layer of filter fabric meeting the specifications found in OAR 340-73-041. Where underdrain media is used, filter fabric is not required or prescribed;

(e) A minimum of twenty-four (24) inches of approved sand filter media shall be installed over the filter fabric or underdrain media. The sand filter media shall be damp at the time of installation. The top surface of the media shall be level. Unless waived by the Agent, the sand filter media proposed for each sand filter shall be sieve tested to determine conformance with the criteria outlined in OAR 340-71-100~~((115))~~ (116), and the report of analysis shall be provided to the Agent;

Adopt the proposed new rule OAR 340-071-0116, as follows:

OAR 340-071-0116(1) The Environmental Quality Commission has established standards within OAR Chapter 340, Divisions 071 and 073, for on-site sewage disposal systems, including the materials used to construct them. Any new or innovative technology or materials to be used in systems within the State of Oregon that differ from the standards described in OAR Chapter 340, Divisions 071 and 073, may be reviewed by the Technical Review Committee, consistent with the provisions in sections 2 through 5 of this rule. After consideration of the TRC's advice, the Department may recommend that the Director grant approval, consistent with OAR 340-071-0130(2). The Department shall require convincing documentation of performance as provided in sections (2) and (3) of this rule, or compliance with the prescriptive standard option as provided in sections (4) and (5) of this rule, before recommending a new or innovative technology or material for general use.

(2) Performance evaluation of new or innovative technology or materials. Performance is the preferred standard by which new or innovative technologies and materials are evaluated in the State of Oregon. Performance is established when the Department determines the criteria described in subsections (a) through (e) of this section are met:

- (a) Peer-reviewed, third party documentation, usually obtained by field studies, that have produced data that is scientifically defensible and have sufficient replications to be representative. The data must clearly document the manufacturer's claim as to the performance of the product.**
- (b) The field studies shall have relevancy to the field conditions encountered within the State of Oregon, such as soil-type and climate, before the Department may recommend the technology or material for statewide use. If the studies are only partly relevant to Oregon field conditions, the Department may limit its recommendation of the technology or material to locations with similar field conditions.**
- (c) The field studies shall include a control that represents the applicable prescriptive standards within OAR Chapter 340,**

Divisions 071 and 073, against which the new technology or material is evaluated.

- (d) The studies shall clearly define objectives and variables being considered. Objectives shall include performance standards sought. Variables shall include climate, soil, waste characteristics such as flow and strength, and topography.
- (e) The field studies shall be sufficient to address system operations at maturity and any temporal variability's.
- (3) Supplemental to the requirements described in section (2) of this rule, field studies conducted to demonstrate equivalent or better performance of material used as a substitute for drain media shall have been conducted substantially in conformance with the testing protocol described in OAR 340-071-0117.
- (4) Prescriptive standard option. The applicable standards within OAR Chapter 340, Divisions 071 and 073, shall be the prescriptive standards new or innovative technology or materials are evaluated against. Supplemental criteria may be developed by the Department if it determines the applicable standards within OAR Chapter 340, Divisions 071 and 073 are insufficient. A prescriptive standard option for material used as a substitute for drain media is prescribed in section (5) of this rule.
- (5) Prescriptive standard option for material used as a substitute for drain media. The Department may recommend for approval proposed new or innovative materials intended to be used within disposal trenches (including seepage trenches), seepage beds or other similar absorption facilities by evaluating the following criteria:
- (a) The new or innovative materials shall be structurally sound, durable and inert within the environment they are placed. The substitute material shall be capable of passing wastewater towards the infiltrative surfaces at a rate equal to or greater than drain media.
- (b) Disposal trench:
- (A) The trench shall be excavated in conformance with the trench standards described in OAR Chapter 340, Division 071. However, due to the design configuration of the substitute material for drain media, the trench width may be less than 24 inches wide provided the trench length is increased to compensate for the loss of the bottom surface area using the following formula:
- Adjusted Trench Length = (24 inches ÷ W) x L

Where:**W = the reduced trench width in inches;****L = the original trench length as specified in paragraph (5)(b)(F) of this rule.**

(B) The substitute material for the drain media shall be placed within the trench, and be in uniform contact with the trench bottom and both sidewalls. If voids larger than typically found with the use of drain media are present along the trench bottom after placement of the substitute material, methods to prevent the entry of burrowing rodents shall be required. If the substitute material for drain media is not in uniform contact with both sidewalls, drain media shall be placed within the trench so as to provide that contact;

(C) The substitute material for drain media shall be placed so as to provide a uniform sidewall infiltrative surface depth as measured along the trench sidewall from the bottom to the top of the drain media substitute in contact with the sidewall. In seepage trenches, the depth of the substitute material for drain media shall be greater than 12 inches. If the substitute material for drain media provides less than 12 inches of sidewall contact depth, either drain media must be placed to accomplish the minimum sidewall contact depth, or the length of the disposal trench shall be increased to compensate for the reduced sidewall seepage area depth using the following formula:

$$\text{Adjusted Trench Length} = (12 \text{ inches} \div D) \times L$$

Where:**D = the reduced sidewall seepage area depth in inches;****L = the original trench length as specified in paragraph (5)(b)(F) of this rule.**

(D) If a substitute material is used in the trench that is both narrower than 24 inches and has a sidewall contact depth that is less than 12 inches, then the adjusted trench length shall be the longer of the adjusted trench lengths calculated using the formulae within paragraphs (A) and (C) of this subsection.

(E) The top surface of the substitute material for the drain media shall be level across the trench and be in contact with each side of the trench. The substitute material for drain media shall have porosity at the top surface that is not appreciably different from the porosity of drain media. Drain media may be placed across the top of the substitute

material to provide the level surface extending from sidewall to sidewall.

(F) The sizing criteria for standard disposal trenches using a substitute material for drain media shall conform to OAR 340-071-0220(2), 340-071-0290(4), or 340-071-0360(2)(a). Seepage trenches using a substitute material for drain media shall be sized in conformance with OAR 340-071-0280(2), 340-071-0290(4), 340-071-0310(2) or 340-071-0360(2)(b).

(c) ETA beds, seepage beds:

(A) Beds shall be excavated in conformance with the standards described in OAR 340-071-0270(2) or 340-071-0275(4)(d);

(B) The substitute material for drain media shall be placed within the excavation, and be in contact with the bottom and sidewalls of the bed. If voids larger than typically found with the use of drain media are present along the bottom or sidewalls after placement of the substitute material, methods to prevent the entry of burrowing rodents may be required;

(C) The substitute material for drain media shall be placed so as to provide a substitute material depth of at least 12 inches, as measured from the bottom of the excavation to the top of the drain media substitute. If the depth of the media substitute is less than 12 inches, drain media may be placed within the excavation to provide this depth.

(D) The upper surface of the substitute material for drain media shall be level from sidewall to sidewall. The porosity of the top surface of the substitute material shall not appreciably differ from the porosity of drain media. Drain media may be placed across the top of the substitute material to provide the level surface extending from sidewall to sidewall.

(E) The sizing criteria for ETA beds that contain a substitute material for drain media shall be as specified in OAR 340-071-0270(2). Seepage beds using a substitute material for drain media shall be sized in conformance to OAR 340-071-0275(4)(d)(B).

(d) Distribution piping that is present in absorption facilities using a substitute material for drain media shall comply with the

appropriate pipe standards within OAR Chapter 340, Division 071 and OAR 340-073-0060.

Adopt the proposed new rule OAR 340-071-0117, as follows:

OAR 340-071-0117 The Department may consider new or innovative technology or materials for use in on-site systems through a performance evaluation process that is technically justifiable, that has been peer reviewed and agreed upon and is acceptable to the Department, or through the WPCF permit process. The results of the performance evaluation shall be used to determine approval, conditions of approval or denial of the technology or material. Where the WPCF permit process is used, an application must be submitted pursuant to OAR 340-071-0162. Through this permit, a performance history may be established through a field study to demonstrate comparable or equivalent performance to Oregon's prescriptive standards. Compliance with the following criteria is required:

- (1) Theoretical basis. There is a theoretical basis for the innovative technology or material and its intended use;**
- (2) Test protocol. A testing protocol proposed by the applicant and agreed upon by the Department shall be established. *The protocol shall clearly define performance objectives, performance measurements to validate attainment of the objectives, and variables for limited or statewide use.**
- (3) Duration. The evaluation shall be for a period of time sufficient to attain equilibrium for comparison to Oregon standards.**
- (4) Replication. The number of installations must be sufficient to include replication of study sites and to address applicable variations in climate, soil, topography, waste loading and strength.**
- (5) Consultant. The applicant shall retain a qualified consultant (which may include, but need not be limited to, an academic or research institute) to design the study, perform the verification of site evaluation, certification of installation and the monitoring and recording of the systems to be evaluated. The consultant must be acceptable to the Department. The Department shall be allowed to monitor the systems as needed throughout the evaluation period.**
- (6) Siting. No reduction of the siting criteria described in OAR Chapter 340, Division 071, shall be allowed. A site evaluation shall be conducted in accordance with OAR 340, Division 071, for each system installation. There shall be sufficient suitable**

area available for installation of both an initial on-site system as well as a full replacement on-site system. Written verification from the consultant that the site conditions are appropriate for the new or innovative technology or materials shall be submitted to the Department. The field study shall not commence until the WPCF permit is issued.

- (7) Construction/installation. The applicant shall select a licensed sewage disposal service business to install each system. There shall be at least one pre-cover inspection conducted by both the Department and the consultant. Upon completion of construction, the applicant and system installer shall provide written certification that the system was installed correctly.
- (8) Monitoring and reporting. The test product and the control product will be monitored and data recorded and reported to the Department in a manner that will allow for direct comparisons to Oregon standards.
- (9) Final report. The applicant shall submit a final report to the Department for review and consideration. Technologies and materials whose performance has been satisfactorily substantiated through the field study may be authorized for a broader use in Oregon.
- (10) Supplemental to sections 1 through 9 of this rule, a field study involving a substitute material for drain media shall include the following:
- (a) A standard on-site system shall be installed and sized according to tables 4 and 5 of OAR Chapter 340, Division 071, for a given soil group. The system shall be designed so as to allow a side-by-side performance comparison of the material with a standard Oregon disposal trench (the control). For this purpose, the drainfield shall contain four (4) small test cells (two (2) cells shall contain the substitute material and two (2) cells shall contain drain media) that receive septic tank effluent prior to the remaining portion of the drainfield. The test cells shall represent approximately 1/3 of the total drainfield. The cells containing the substitute material shall be sized according to the manufacturer's claim for equivalence to the standard trench length.
- (b) A drop box (or similar monitoring box containing a sump) shall be placed at the end of each test cell. All drop boxes shall be connected to the remaining portion of the drainfield.

- (c) The test cells shall be fed by a pump and a hydrosplitter so as to proportion the effluent equally to each test cell. Installation of a water meter or pump cycle-counter may be required.
- (d) Observation ports shall be installed in each test cell to allow measurement and recording of the effluent ponding depth.
- (e) Domestic wastewater coming directly from a septic tank connected to a residence shall be used in the field study.
- (f) The performance standard to be tested is the acceptance rate of the effluent by the substitute material, measured by observing the time for each test cell in the study to overflow to the drop box.
- (g) The test shall conclude at the end of three (3) years, or when overflow is observed in either pair of substitute material or control test cells, whichever occurs first. Minimum observation frequency shall be monthly. Recordings to be made are overflow or no overflow, and depth of ponding.
- (h) The testing described in this section shall be duplicated at other sites within western and eastern Oregon, with different climatic regimes, and in each of the soil groups described in OAR Chapter 340, Division 071, Tables 4 and 5. The number of duplicated sites shall be a minimum of 18; three sites in each of three soil groups within the two major climatic regimes of Oregon (West of the Cascade Mountain Range and East of the Cascade Mountain Range). The applicant may provide any number of additional sites.

Amend OAR 340-071-0162(17) as follows:

(17) Rules Which Do Not Apply to WPCF Applicants or Permittees.

- (a) Because the permit review, issuance, and appeal procedures for WPCF permits are different from those of other on-site permits regulated by these rules, the following portions within this division do not apply to WPCF applicants or permittees: OAR **340-071-0116**; 340-071-0155; 340-071-0160(6), (8), (9), and (10); 340-071-0165(1); 340-071-0170; 340-071-0175; 340-071-0185; 340-071-0195; 340-

071-200; 340-071-0205; 340-071-0210; 340-071-0215(1), (2), (3); 340-071-0270; 340-071-0275(4)(c)(A); 340-071-0295(1); 340-071-0305; 340-071-0320; 340-071-0325; 340-071-0330; 340-071-0345; 340-071-0360(2)(b)(B); 340-071-0410; 340-071-0415; 340-071-0420; 340-071-0425; 340-071-0430; 340-071-0435; 340-071-0440; 340-071-0445; and 340-071-0500;

- (b) Permit applicants and permittees are not subject to any WPCF permit-related fees other than those specifically contained within OAR 340-071-0140;
- (c) The following portions of OAR Chapter 340, Division 073, do not apply to WPCF applicants or permittees: OAR 340-073-0030(1); 340-073-0065; 340-073-0070; and 340-073-0075.

Amend OAR 340-071-0130(2), as follows:

(2) Approved Disposal Required.

- (a) All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve **the** use of new or innovative technologies, materials, or designs that differ from those specified within this division and OAR Chapter 340, Division 073, if such technologies, materials, or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of this division and OAR Chapter 340, Division 073, including the purposes stated in OAR 340-071-0110. **The Director may amend or repeal an approval granted pursuant to this section.** The Department may determine that the appropriate method of approving Alternative Systems^{**} is by rule amendment.
- (b) **On July 1, 2000, each approval for new or innovative technology or material that was granted by the Director prior to July 1, 1999, shall expire unless the new or innovative technology or material is:**
 - (A) **found to be in conformance with the prescriptive standard option described in OAR 340-071-0116; or**
 - (B) **in the process of an evaluation in conformance with the criteria described in OAR 340-71-0117. At the conclusion of the evaluation, which shall not exceed three years, the Director may approve the new or**

innovative technology or material if it meets the criteria. While engaged in the performance evaluation, materials with a current approval from the Director for use as a drain media substitute may be allowed through a construction-installation permit and sized according to appropriate manufacturer's recommendation with Department concurrence, provided the following conditions are met:

- (i) The manufacturer provides a written warranty acceptable to the Department that provides for repair or replacement if the material is found to be defective or contributes wholly or in part to a failure of the absorption facility;
- (ii) The manufacturer, installer or property owner provides a bond or other security acceptable to the Department, assuring the repair or replacement of the absorption facility that the Department finds to be defective or to be contributing to the failure of the facility. The amount of the bond or security shall be based on the projected number of systems installed during the evaluation period at \$2500 per system. The bond or security must be maintained for 5 years, or until the drain media substitute as installed has been approved as provided in subsection (2)(a) of this rule, or until the system is decommissioned, whichever is sooner;
- (iii) The property with a system proposed to be installed at the appropriate manufacturer's recommended sizing, must have sufficient area available to accommodate an initial and replacement system at a size that would otherwise be required by these rules.

**

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
 A Statement of Need and Fiscal Impact accompanies this form.

| | |
|--|-------------------------------------|
| <u>DEQ - WQ</u> | <u>Chapter 340</u> |
| Agency and Division | Administrative Rules Chapter Number |
| <u>Susan M. Greco</u> | <u>(503) 229-5213</u> |
| Rules Coordinator | Telephone |
| <u>811 S.W. 6th Avenue, Portland, OR 97213</u> | |
| Address | |

Oregon Dept. of Environmental Quality
 Northwest Region
 2020 S.W. Fourth Ave.
 Portland, Oregon

| | | | |
|-------------------------|--------------|----------------------------|----------------------|
| <u>October 15, 1999</u> | <u>10 am</u> | <u>Conference Room 4 A</u> | <u>Sherman Olson</u> |
| Hearing Date | Time | Location | Hearings Officer |

Are auxiliary aids for persons with disabilities available upon advance request?
 YES

RULEMAKING ACTION

ADOPT:

OAR 340-071-0116; OAR 340-071-0117

AMEND:

OAR 340-071-0100; OAR 340-071-0130; OAR 340-071-0162

REPEAL:

RENUMBER:

AMEND AND RENUMBER:

Stat. Auth.: ORS 454.625; ORS 468.020

Stats. Implemented: ORS 454.615; ORS 454.625; ORS 454.775; ORS 468.020; ORS 468.035;
 ORS 468.045; ORS 468B.015; and ORS 468B.020.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For

Adoption of Proposed Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program.

Fiscal and Economic Impact Statement

Introduction

This proposal would establish written performance-based and prescriptive criteria to be used by the Technical Review Committee and Department staff when reviewing and evaluating new or innovative technologies and materials for use in Oregon. Specific criteria for evaluating materials designed to be used in-lieu-of drain media are included in the proposal. In addition, a study method for comparing the field performance of a new or innovative technology or material to Oregon conditions and established prescriptive-based requirements is also being proposed.

The rules would impact any person or business that wished to have an innovative technology or product reviewed and approved for on-site sewage system use in Oregon. The number of Oregon-based persons and businesses that would be affected by this rulemaking proposal can not be accurately estimated, however, there is at least one small business manufacturer that may be directly affected and approximately 1,100 licensed sewage system installers that may be indirectly affected. The overall impacts for acceptance of innovative technologies and materials will vary from less time taken for the review process than taken at present, to more expense in providing to the Department essential information needed for a decision. The potential impact upon system installers is that they may choose to include an accepted new technology or material within a system design.

Comments to two alternatives for rule implementation are being requested. One alternative would require affected innovative technologies or materials to be reviewed by the Department and a determination made as to compliance of the rule within 30 days of the effective date. Previous approvals would be void after the review if the material is not in compliance, or modified if in compliance. The other alternative would allow for a time period where previous approvals would be maintained while the technologies or materials either gain compliance with the prescriptive standard or enter into a performance evaluation.

General Public

Most of the public will not be impacted by the proposed rules. However, some members of the general public, those that are served or may in the future be served by on-site sewage treatment and disposal systems, will have a greater opportunity to more easily select new or innovative technologies or materials to use in-lieu-of existing on-site system technologies and materials.

The initial cost for the new technologies and materials may be different from the cost of existing technologies and materials. In making the decision to use or not use a new technology or material, the affected public may want to consider other less apparent factors that may have an influence on their decision. These factors may include the differences in: installation labor costs; ease and frequency of maintenance; operation needs and costs; value to the environment, public health and safety; and other factors.

Small Business

The impact upon small business may be similar to the impact to the general public.

In addition, small businesses may also be involved in the development, manufacture, marketing, installation, and maintenance of new technologies and materials. The total number of affected small businesses is unknown, however there is one known small manufacturing business and about 1,100 licensed sewage disposal service business that may potentially be affected to some degree. Because the proposed rules supplement existing rules that touch on the review and acceptance of new or innovative technologies and materials, affected members of the manufacturing group will be clearly informed of the criteria their innovative technology or material will be evaluated against. If scientific studies have previously been conducted that demonstrate an equivalence in performance to that experienced under Oregon's prescriptive standards, the technology or material may be accepted for state-wide use in on-site systems without further study or associated costs. However, if the manufacturer's claims have not been scientifically supported through field studies, substantially using Oregon's standards and conditions as a part of the study control, then acceptance may be possible through compliance with Oregon's prescriptive standards. A business may also initiate field studies through the protocols described in a proposed rule that would utilize the Water Pollution Control Facility permit process. The cost of conducting field studies is expected to be substantially funded by the business seeking statewide acceptance of the technology or material.

Large Business

The impact upon large business is expected to be similar to the impact upon small business. It is not known how many large businesses may be affected by this proposal.

Local Governments

The impact upon local governments is expected to be similar to the impact upon the general public.

Also, in those areas of the state where local governments have entered into agreements with the Department pursuant to ORS 454.725, the proposed rules are not expected to have a significant fiscal or economic impact.

State Agencies

- DEQ

- FTE's- For the present it is expected there will be a relatively minor increase in workload of reviewing applications and studies as much of this work is presently being done under the current review process. However workload is expected to increase as more technologies and products request approval for use in Oregon. This may have an impact on the need for additional FTE resource in the future.

- Revenues- These rules do not impact revenues. A separate proposed fee package will implement a fee for innovative technology review.

- Expenses- Expenses will be incurred with increased staff review of applications and/or studies. However, costs are now incurred by DEQ in review of the products and technologies under present review process.

- Other Agencies- There is no expected impact on other state agencies.

Assumptions

Based on the Departments past involvement of innovative technology review, many applicants requesting approval of innovative technologies or products for use in on-site systems in Oregon will need to complete a performance study before approval can be considered.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel. Parcels of this size are commonly served by public sewerage and water systems. To the extent that this rulemaking might have an effect, the proposed rules may provide the small lot property owner with a choice to use or not use a new or innovative technology or material in-lieu-of an existing technology or material.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Adoption of Proposed Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The purpose of the proposed rules is to establish the criteria by which new or innovative technologies and materials proposed to be used within on-site sewage treatment and disposal systems will be evaluated and accepted for use within the state. The rules establish both performance-based and prescriptive criteria, the choice of which to apply depends upon the level of scientific study that has been completed prior to submittal of a request for acceptance. The rules also provide a method by which scientific studies may be conducted prior to statewide acceptance of the technology or material. The Director's role in approving new or innovative technologies or materials has been clarified to the extent that the Director may amend or repeal previously granted approvals. The existing rules do not provide objective criteria to aid in the review. As a consequence of a lawsuit, the Department has been ordered to establish written criteria by which materials intended to replace drain media in disposal trenches are to be evaluated.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program? X Yes No

a. If yes, identify existing program/rule/activity:

The proposed rules have been determined to not directly affect land use. However, the agency's on-site permit program has been determined to be an agency program that significantly affects land use (OAR 340-018-0030(5)(d)). The proposed rules concern the review and evaluation of technologies and materials that may be authorized for use within on-site systems in the state.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? X Yes No (if no, explain):

Current DEQ policy requires local government approval through a Land Use Compatibility Statement before an on-site permit is issued.

c. If no, apply the following criteria to the proposed rules.

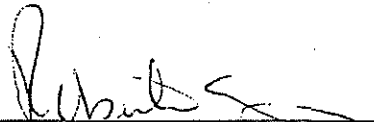
N/A

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

N/A

Division



Intergovernmental Coordinator

9/15/99
Date

**Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.**

- 1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

There are no federal requirements that apply to this proposed action.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

There are no federal requirements that apply to this proposed action.

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

There are no federal requirements that apply to this proposed action.

- 4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?**

Yes, the proposed rule will provide the regulated community with a clearer understanding of what is expected when they submit a request for review and acceptance of a new and innovative technology or material.

- 5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?**

There are no federal requirements that apply to this proposed action.

- 6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?**

Yes, to the extent that the question applies to the proposed action.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Yes, the proposed rule establishes a level field for the review and evaluation of new and innovative technologies and materials.

8. Would others face increased costs if a more stringent rule is not enacted?

Unknown.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

There are no federal requirements that apply to this proposed action.

10. Is demonstrated technology available to comply with the proposed requirement?

There may be. However, it is our experience that new and innovative technology and materials often do not have scientifically-supported performance studies to justify outright acceptance for use in on-site systems throughout the state. Without documented third-party peer review of the science, public health and safety may rise to a higher risk level than currently accepted technology and materials present.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Yes, it will contribute to pollution prevention. It is not possible to predict if a more cost-effective environmental gain will be realized.

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 15, 1999

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements --Proposed Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program.

This memorandum contains information on a proposal by the Department of Environmental Quality (Department) to adopt new rules/rule amendments regarding the criteria to be used when reviewing and authorizing the use of innovative technologies and materials within on-site sewage treatment and disposal systems. Pursuant to ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's intended action to adopt a rule.

This proposal would establish written performance-based and prescriptive criteria to be used by the Technical Review Committee and Department staff when reviewing and evaluating new or innovative technologies and materials for use in Oregon. Specific criteria for evaluating materials designed to be used in-lieu-of drain media are included in the proposal. In addition, a study method for comparing the field performance of a new or innovative technology or material to Oregon conditions and established prescriptive-based requirements is also being proposed.

The Department has the statutory authority to address this issue under ORS 454.625 and ORS 468.020. These rules implement ORS 454.115, ORS 454.625, ORS 454.775, ORS 468.020, ORS 468.045, ORS 468B.015, and ORS 468B.020.

What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

- Attachment A The official statement describing the fiscal and economic impact of the proposed rule. (required by ORS 183.335)
- Attachment B A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans.
- Attachment C Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.
- Attachment D The actual language of the proposed rule (amendments).

Memo To: Interested and Affected Public
September 15, 1999
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Hearing Process Details

The Department is conducting a public hearing at which comments will be accepted either orally or in writing. The hearing will be held as follows:

Date: October 15, 1999
Time: 10 a.m.
Place: Oregon Department of Environmental Quality
Northwest Region
2020 S.W. Fourth Avenue
Portland, Oregon
Conference Room 4 A

Deadline for submittal of Written Comments: October 19, 1999

Sherman Olson, DEQ, will be the Presiding Officer at the hearing.

Written comments can be presented at the hearing or to the Department any time prior to the date above. Comments should be sent to: Department of Environmental Quality, Attn: Sherman Olson, Water Quality Division, 811 S.W. 6th Avenue, Portland, Oregon 97204, or you may hand deliver written comments to the Department of Environmental Quality, 811 S.W. Sixth Avenue, 7th Floor Receptionist, between 8 a.m. and 5 p.m. prior to the above date.

In accordance with ORS 183.335(13), no comments from any party can be accepted after the deadline for submission of comments has passed. Thus if you wish for your comments to be considered by the Department in the development of these rules, your comments must be received prior to the close of the comment period. The Department recommends that comments be submitted as early as possible to allow adequate review and evaluation of the comments submitted.

What Happens After the Public Comment Period Closes

Following close of the public comment period, the Presiding Officer will prepare a report that summarizes the oral testimony presented and identifies written comments submitted. The Environmental Quality Commission (EQC) will receive a copy of the Presiding Officer's report. The public hearing will be tape recorded, but the tape will not be transcribed.

The Department will review and evaluate the rulemaking proposal in light of all information received during the comment period. Following the review, the rules may be presented to the EQC as originally proposed or with modifications made in response to public comments received.

Memo To: Interested and Affected Public
September 15, 1999
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The EQC will consider the Department's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is November 18 and 19, 1999. This date may be delayed if needed to provide additional time for evaluation and response to testimony received in the hearing process.

You will be notified of the time and place for final EQC action if you present oral testimony at the hearing or submit written comment during the comment period. Otherwise, if you wish to be kept advised of this proceeding, you should request that your name be placed on the mailing list.

Background on Development of the Rulemaking Proposal

Why is there a need for the rule?

In 1995, the EQC adopted new rules that created the Technical Review Committee (TRC). The TRC's purpose includes advising the Department on the use of new or innovative technologies, materials or designs that maintain or advance protection of the quality of public waters and the public health and general welfare. The 1995 rule amendments also empowered the Director to consider recommendations originating from the TRC through the Department that could result in statewide approval allowing the use of new or innovative technologies, materials and designs. The 1995 rule action did not, however, provide specific guidance to be used when conducting the review and evaluation.

Two innovative materials that were each designed to be used as a substitute for drain media were reviewed and evaluated under the 1995 rule authorities. The TRC recommended the materials be accepted as a substitute for drain media in disposal trenches. The Department reviewed the TRC recommendation and believed it to be reasonably protective of the quality of public waters and public health and general welfare, and presented a recommendation to the Director to approve usage of each of the materials in on-site systems. The Director granted approval for each of the drain media substitute materials in November of 1995.

Several times since the approvals were granted, the Department was asked by one of the manufacturers to re-examine their approval, and to change the conditions within the approval. Again, with involvement of the TRC, further evaluations were conducted and recommendations were made that over time resulted in approval modifications in 1996 and twice in 1997. In response to further requests, the Department issued a final order in this matter. This resulted in the manufacturer filing a request for judicial review in Circuit Court.

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After the case was heard, on July 19, 1999, Circuit Court Judge Linda L. Bergman ordered that the case be remanded to the Department to develop the standards to be used in evaluating alternative products. The Court further ordered that the Department complete this process within 60 days.

As a result of the Circuit Court action, the Department is compelled to establish standards for review and evaluation of new or innovative technologies and materials. It is appropriate that these standards be presented the EQC for adoption through rulemaking.

How was the rule developed?

The rule was developed by DEQ technical staff, with input from the Department's Rule Advisory Committee, members of the Technical Review Committee and other interested persons.

The Circuit Court Judgment that guided the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Sherman Olson, (503) 229-6443 or toll-free in Oregon 1-800-452-4011, for times when the document is available for review.

Who does this rule affect including the public, regulated community or other agencies, and how does it affect these groups?

The rules would affect any person that wished to have an innovative technology or product reviewed and approved for on-site sewage system use in Oregon.

Most of the public will not be impacted by the proposed rules. However, some members of the general public, those that are served or may in the future be served by on-site sewage treatment and disposal systems, will have a greater opportunity to more easily select new or innovative technologies or materials to use in-lieu-of existing on-site system technologies and materials.

The initial cost for the new technologies and materials may be different from the cost of existing technologies and materials. In making the decision to use or not use a new technology or material, the affected public may want to consider other less apparent factors that may have an influence on their decision. These factors may include the differences in: installation labor costs; ease and frequency of maintenance; operation needs and costs; value to the environment, public health and safety; and other factors.

Businesses may be involved in the development, manufacture, marketing, installation, and maintenance of new technologies and materials. Because the proposed rules supplement existing

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rules that touch on the review and acceptance of new or innovative technologies and materials, affected members of this group will be clearly informed of the criteria their innovative technology or material will be evaluated against. If scientific studies have previously been conducted that demonstrate an equivalence in performance to that experienced under Oregon's prescriptive standards, the technology or material may be accepted for state-wide use in on-site systems without further study or associated costs. However, if the manufacturer's claims have not been scientifically supported through field studies, substantially using Oregon's standards and conditions as a part of the study control, then acceptance may be possible through compliance with Oregon's prescriptive standards. A business may also initiate field studies through the protocols described in a proposed rule that would utilize the Water Pollution Control Facility permit process. The cost of conducting field studies is expected to be substantially funded by the business seeking statewide acceptance of the technology or material.

How will the rule be implemented?

Comments to two alternatives for rule implementation are being requested. One alternative would require affected innovative technologies or materials to be reviewed by the Department and a determination made as to compliance of the rule within 30 days of the effective date. Previous approvals would be void after the review if the material is not in compliance, or modified if in compliance. The other alternative would allow for a time period where previous approvals would be maintained while the technologies or materials either gain compliance with the prescriptive standard or enter into a performance evaluation.

The proposed rules will be implemented by the Department and the TRC whenever a new or innovative technology or material is reviewed and evaluated for usage within this State. A meeting of the TRC has been scheduled for November 22, 1999, to use the rules to reevaluate the two drain media substitute materials that were originally evaluated and approved in 1995.

The manufacturers of innovative technology or materials will be informed of these rules as the Department becomes aware of them, so that they may have knowledge of the evaluation process and how it may apply to them. The manufacturer, or their representative, will be expected to submit their request for review and evaluation in a way that is consistent with these rules.

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Are there time constraints?

Judge Bergman granted the Department's motion for a time extension from the original 60 days from the date of the order to comply with all requirements in the order. The extension requires that by November 19, 1999, the Department formally present the proposed rules to the EQC for adoption. The order also requires that by December 3, 1999, the Department apply the rule to all previously approved products.

Contact for More Information

If you would like more information on this rulemaking proposal, or would like to be added to the mailing list, please contact Sherman Olson. The phone number is (503) 229-6443, or toll-free in Oregon 1-800-452-4011.

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5317 to request an alternate format.

State of Oregon
 Department of Environmental Quality

Memorandum

Date: October 20, 1999

To: Environmental Quality Commission

From: Sherman O. Olson, Jr.

Subject: Presiding Officer's Report for Rulemaking Hearing
 Hearing Date and Time: October 15, 1999, beginning at 10 am
 Hearing Location: DEQ Northwest Region
 2020 S.W. Fourth Avenue
 Portland, Oregon
 Conference Room 4 A

Title of Proposal: Proposed Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program.

The rulemaking hearing on the above titled proposal was convened at 10:10 am. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

Seven (7) people were in attendance, five (5) people signed up to give testimony. *

Prior to receiving testimony, Bijan Pour briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

Summary of Oral Testimony

Dick Polson, Building Services Supervisor, Clackamas County Dept. of Transportation & Development and member of the Oregon Onsite Wastewater Association Board of Directors: The proposal imposes standards on alternative materials that are not appropriate. The proposal contains math errors in terms of calculating equivalencies. The industry would be better served by taking a different approach. Mr. Polson polled the 10-member board of directors for the Oregon Onsite Wastewater Association and reports that 6 of the board members opposed the proposed rules. The protocol described in OAR 340-071-0117 is a fine protocol if you are going to run an experiment. But to do some of the things proposed in OAR 340-071-0116 is unfair to the industry. Mr. Polson previously submitted written comment that was received on October 12, 1999.

Todd Winkler, Western United States Manager, Infiltrator Systems, Inc.: provided the following as he read from the written comment prepared and submitted earlier by James Nichols, President of Infiltrator Systems, Inc. Mr. Winkler provided a background about Infiltrator Systems being a world leader in leaching chamber technology, and involved with the industry for over 12 years. Developed the Equalizer 24 chamber for use in states like Oregon that use 24-inch wide disposal trenches. The Equalizer 24 chamber was approved for use in Oregon in December, 1995. Mr. Winkler states that the Equalizer 24 chamber is the de facto standard in Oregon. The proposed rules could have a dramatic impact on Infiltrator Systems. The corporation is in general support of the Oregon's proposal to establish a performance method of evaluation and a prescriptive method. They question the basis of using gravel as the standard by which other technologies will be evaluated. There is no scientific support for gravel performance in Oregon. Has a concern about the limiting performance evaluation criteria and the restrictive test protocol, which is likely to discourage the use of innovative technology in the state. Mr. Winkler spoke about a portion of SB 335 as it encourages the use of innovative technologies. He states that the proposed protocol appears to be in conflict with this legislation. Further, the test protocol is inflexible, not practical, and not feasible to implement. They

recommend that failure rate analysis should be included as an option in the performance criteria protocol proposed, and that previously installed systems be evaluated to establish performance. They encourage adoption of alternative 2 as the implementation option.

Alex Mauck, Northwest E-Z Drain Co.: States that the proposed amendments are not supportive of the provisions in SB 335 that encourage consideration of new technologies. Practitioners will be impacted significantly, and costs will be increased. Two existing technologies will be killed, and hamstring future technologies. He feels that proposed rule OAR 340-071-0116 places burdensome and unnecessary requirements for the approval of alternative products. Proposed OAR 340-071-0117 requires lengthy and cost-prohibitive testing which would be difficult to perform. The proposed rule package in its entirety fails to comply with the court order.

Jim Bransfield, Infiltrator Systems, Inc.: Mr. Bransfield signed up to offer verbal comment, however he did not come forward when asked.

Dennis Gibbens, owner of Price-Rite Septic Service, Inc.: Provided comment about the difference between the Infiltrator System chamber and rock and pipe systems. There are common problems with rock systems, such as an inability of the media to transfer effluent throughout the trench. He has encountered root intrusions within the drain piping to the extent the pipe becomes blocked. Effluent will not distribute equally within the trenches. He has observed that the distribution of effluent in a chamber system goes from end-to-end, much improved, with no obstructions. He feels the Infiltrator chamber is superior to rock trenches. Mr. Gibbons offered no specific comments on the proposed rules.

Written Testimony

No written testimony was received during the public rulemaking hearing.

There was no further testimony and the hearing was closed at approximately 11:15 am.

**

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List of Persons Giving Public Comment

- 1) Alex Mauck, E-Z Drain Co.
Oral Testimony
Letter, not dated, received 10/19/99
Letter dated 10/28/99 and received 11/1/99
- 2) David Miles, et. al., E-Z Drain Co.
Letter dated 10/8/99, received 10/18/99
- 3) James M. Nichols, Infiltrator Systems, Inc.
Letter dated 10/12/99, received 10/13/99
Letter dated and received 10/15/99
Letter dated 10/15/99, received 10/19/99
Letter dated and received 10/19/99
Letter dated and received 10/19/99
- 4) Jim Bransfield, Infiltrator Systems, Inc.
Letter dated and received 10/19/99
- 5) Todd Winkler, Infiltrator Systems, Inc.
Oral Testimony
- 6) Dan Beardsley, Albers & Company
Letter dated 09/27/99, received 09/30/99
- 7) Robert L. Siegrist, Ph. D., P.E., Colorado School of Mines
Letter dated 10/12/99, received 10/15/99
- 8) Richard L. Polson, Clackamas County
Oral Testimony
Letter dated 10/05/99, received 10/12/99
- 9) Jerry M. Thomas, Consolidated Supply Co.
Letter dated 10/7/99, received 10/08/99
- 10) Mark A. Payne, Familian NW
Letter dated 10/6/99, received 10/07/99
- 11) David Ramsey, United Pipe & Supply
Letter dated 10/13/99, received 10/15/99
- 12) Daniel M. Bush, Septic Technologies, Inc.
Letter, not dated, received 10/19/99
- 13) Dennis Gibbens, Price-Rite Septic Service, Inc.
Oral Testimony

List of Persons Giving Public Comment, cont'd

- 14) Steve Wert, Wert and Associates
Letter dated 11/2/99, received 11/8/99
- 15) Richard L. Polson, Clackamas County
Letter dated 11/3/99, received 11/3/99
- 16) Michael Houck, EEE ZZZ Lay Drain Co. Inc. **
Letter dated 11/4/99, received 11/4/99
- 17) Alex Mauck, EZ Drain Co.
Letter dated 11/4/99, received 11/5/99
- 18) James Nichols, Infiltrator Systems, Inc.
Letter dated 11/5/99, received 11/5/99
- 19) John Smits, Smits and Associates, Inc.
Letter dated 11/5/99, received 11/5/99

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Department's Evaluation of Public Comment

- COMMENT:** Two comments (# 1 and 8) expressed the opinion that the entire rule package fails to meet the standards imposed by the court order.
- RESPONSE:** The Department developed the proposed rule fully mindful of the court directive. It is the opinion of the Department that this rule meets the court order.
- COMMENT:** Three comments (# 1, 7 and 8) expressed the opinion that the proposal sets a standard of proof that is unreasonable,^{**} burdensome, or too costly.
- RESPONSE:** The intent of the proposed rule is to lay out a process for approval that is fair and reasonable for the manufacturers of a product and in so doing, to encourage the development of alternative and innovative materials for on-site systems. In evaluating these concerns, the Department agrees that a performance evaluation process in some instances should be designed differently but still technically justifiable. The Department has modified the performance language to allow maximum flexibility without undermining the process.
- COMMENT:** Comments (# 1, and 12) expressed the opinion that the Department does not have the budget or resources to administer and implement the proposed rules responsibly.
- RESPONSE:** The Department has proposed this rule to place the burden on the applicant, not on the Department or other fee payers. The performance evaluation is to be peer reviewed outside the Department, the evaluation performed by the applicant, the results tabulated and reported to the Department. The Department will be reviewing the study results as it does now for any company that wishes to use an innovative material in on-site systems in Oregon.
- COMMENT:** Comments (# 1, 2, 3, 9, 10 and 11) expressed the opinion that if the previous approvals granted to two manufacturers are rescinded, there will be an unreasonable financial impact upon themselves and the industry.
- RESPONSE:** Alternative #2 and 3 to OAR 340-71-0130(2) both provide for currently approved products to maintain a market in Oregon while coming into compliance with the proposed rule.

- COMMENT:** Comments (# 3, 5 and 10) expressed the opinion that the previous approvals be maintained while the affected manufacturers gain compliance for their products **
- RESPONSE:** Alternative #2 and 3 to OAR 340-071-0130(2) both provide for currently approved products to maintain a market in Oregon while coming into compliance with the proposed rule.
- COMMENT:** Comment (# 3) expressed the opinion that it would be impossible to achieve statistically significant results under the proposed protocol.
- RESPONSE:** Staff agrees that the proposed language in the rule should be modified to eliminate the reference to “statistically significant data”.
- COMMENT:** Comment (# 7) expressed the opinion that the statement “untreated domestic wastewater from a septic tank...” is erroneous.
- RESPONSE:** Staff agree, the language has been modified to eliminate this error.
- COMMENT:** Comments (# 3 and 8) express the opinion that the number of systems needed for a test study is excessive.
- RESPONSE:** Staff re-examined this issue, recognized an ambiguity, and added the language to specify at least 18 total systems would be required to evaluate a given product.
- COMMENT:** Comments (# 3, 4, and 5) expressed the opinion that Alternative 2 should be adopted.
- RESPONSE:** In reviewing the court order and with the intent to better “level the playing field” the Department developed Alternative 3. The Department believes this alternative is the preferred option.
- COMMENT:** Comment (# 8) expressed the opinion that it is not relevant to compare the permeability of a new media to the stone trench.
- RESPONSE:** Stone filled trenches have been used for decades in Oregon. The Department has a good understanding of the expected performance and permeability of stone trenches over the life span of a system. Since the intent of two products currently approved for use in Oregon include the use as a substitute for **

stone in a drainfield trench, the best comparison is to the stone trench.

COMMENT: Comment (# 7) expressed the opinion that the proposed amendments are overly prescriptive yet vague in key areas.

RESPONSE: The Department agrees in the context of the performance evaluation. The Department has modified it's original proposal to specify the number and location of systems to be evaluated and has modified the proposed language to allow greater flexibility in the development of a performance evaluation study. **

COMMENT: Comments (# 3, 5, and 7) expressed the opinion that there is too little known about the performance of stone trenches to use them as the benchmark for comparing the performance of new technology.

RESPONSE: Stone filled trenches have been used for decades in Oregon. The Department has a good understanding of the expected performance of stone trenches over the life span of a system; certainly much more than any other alternative. While the Department agrees that there are circumstances where comparisons will be difficult, the stone trench is Oregon's standard and has been for years.

COMMENT: Comment (# 8) expressed the opinion that proposed OAR 340-071-0116(5)(b)(A) makes a major math error by considering the trench width (and therefore the trench bottom) as an integral part in determining system size.

RESPONSE: Using the formula as proposed simply adds a safety factor** to products with unknown performance. The prescriptive standard is not the primary process that the Department is focusing on; performance of the product is what is important. That performance can only be determined by a properly completed performance evaluation.

COMMENT: Comment (# 8) expresses the opinion that proposed OAR 340-071-0116(5)(b)(B) is inconsistent when viewed with the requirements for the gravel-less absorption method, as established in OAR 430-071-0290(7).

RESPONSE: The generic gravel-less absorption method was adopted by rule after review by the Department's on-site Rule Advisory Committee followed by public hearings and public comment in 1994. The Department believes that performance evaluation of a

product is the best method for determining effectiveness and that rulemaking for generic equivalents of the products evaluated may be adopted by rule in the future.

COMMENT: Comment (# 8) expressed the opinion that proposed OAR 340-071-0116(5)(b)(C) references trench sizing based on the bottom area, and is contrary to long-standing DEQ policy and theory.

RESPONSE: This section relates to seepage trenches and the placement of drain media within the trenches. The Department disagrees that this section bases sizing on bottom area, although the formulas in the prescriptive approach do provide a safety margin of increased length if sidewall is reduced through the use of an alternative product.

COMMENT: Comment (# 8) expressed the opinion that proposed OAR 340-071-0116(5)(b)(E) applies a standard that may not need to be universal.

RESPONSE: The Department intends for the prescriptive approach to essentially define the stone trench used in Oregon. The stone trench has material placed so that when the trench has the required depth of stone, the stone is across the trench and in contact with both sidewalls. This standard of stone across the trench and in contact with both sides is universal in Oregon.

COMMENT: Comment (# 8) expressed the opinion that proposed OAR 340-071-0117 is unreasonable in that it would require testing in all parts of Oregon and all soil types.

RESPONSE: This rule has been clarified to indicate that 18 systems would be needed for evaluation in Oregon; three in each of the three major soil types the Department uses in Division 71 and in each of the two major climatic regimes in eastern and western Oregon.

COMMENT: Comment (# 8) expressed the opinion that both options presented in proposed OAR 340-071-0130(2) should be eliminated.

RESPONSE: The Department has developed Alternative # 3 for OAR 340-071-0130(2) in response to concerns relating to Alternatives #1 and 2.

COMMENT: Comments (#1 and 5) expressed the opinion that the proposed OAR 340-71-0116 and 340-071-0117 undermines the provisions of SB 335 as it encourages the adoption of innovative technologies.

RESPONSE: The Department disagrees. SB 335 was a Department sponsored bill. The Department believes that this proposed rule does provide the tool to encourage the adoption of innovative technologies while continuing protection to public health and the environment.

COMMENT: Comment (# 1) expressed the opinion that the Department did not provide members of the Rule Advisory Committee and the Technical Review Committee with a copy of the court order and other information before the committees met on August 26, 1999. Without this information, the committees were not able to make well-informed decisions.

RESPONSE: The Department agrees that the copies of the court orders were not given to the committee members until the day of the meeting. The Department is under court order for specific timelines and all the review that would have been requested through the Departments normal rule making process unfortunately cannot be accomplished within the court ordered dates. However it is also noted that it is the Department that is required to develop the rule; it is not the Technical Review Committee. The committee was convened to offer the Department guidance.

COMMENT: Comments (# 1) expressed the opinion that the applied intent of the rule package appears to be nothing more than an attempt to target and kill two already accepted alternative products.

RESPONSE: The Court order requires that the Department establish an objective rule for innovative technologies. The Department has proposed three alternatives for implementation of the rule, two of which keep the currently approved products in the market.

COMMENT: Comments (# 1) expressed the opinion that WPCF permits are the kiss of death to new technologies and innovative materials due to the high cost of permits, paperwork and time.

RESPONSE: The Department over the last two years has in many ways streamlined The WPCF permit process. The costs for residential WPCF permits are comparable or in some cases lower than a construction installation permit. The Department is continuing this effort at streamlining the WPCF process.

COMMENT: Comments (# 1) expressed the opinion that it is unnecessary and unsupported that substitute drain media must come into contact with trench bottoms and sidewalls, as is proposed OAR 340-071-0116(5).

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- RESPONSE:** The Department finds no supportive scientific demonstrable evidence that would suggest that drain media does not need to be in contact with trench bottoms or sidewalls for the best efficiency of a drainfield trench. The commenter's opinion can only be assessed through a performance evaluation as suggested by the proposed rule.
- COMMENT:** Comment (# 1) expressed the opinion that the entire rule package be scrapped.
- RESPONSE:** The Department disagrees. The Department is under court order to develop a rule for evaluating innovative technologies and materials.
- COMMENT:** Comments (# 3, 5, 6 and 7) expressed the opinion that the proposed rules contain an unusually prescriptive testing protocol, or that the protocol is inflexible and infeasible.
- RESPONSE:** The Department agrees that a performance evaluation process in some instances should be designed in a different manner but still technically justifiable. The Department has modified the performance language to allow this.
- COMMENT:** Comment (# 3) expressed the opinion that proposed rules OAR 340-071-0116(3) and 340-071-0117(10) be replaced with language that allows DEQ to approve testing protocols on a case-by-case basis.
- RESPONSE:** This comment is essentially the same as the one above. The Department agrees that a performance evaluation process in some instances could be designed differently. The Department has modified the performance language to allow this.
- COMMENT:** Comments (# 7) expressed the opinion that the requirements for testing of substitute drain media are not well founded with respect to requiring vertical sidewalls, horizontal tops, or that drain media be placed to create intimate contact on the sides and a level top surface.
- RESPONSE:** The Department agrees. This is one of the factors that indicate performance evaluations are necessary. Until the performance of a product is tested, it is only an assumption to relate the product to manufacturers recommended practice or to prescriptive standards.

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COMMENT: Comments (# 7) expressed the opinion that it would be more appropriate to use a combination of evaluation activities in lieu of a testing program.

RESPONSE: The Department agrees that a performance evaluation process in some instances could be designed in a differently in a technically justifiable manner. The Department has modified the performance language to allow this. The Department considers it unlikely that a combination of evaluation activities could provide data that would adequately measure performance. However, the modification to the original proposal would allow the Department to consider a combination of evaluation activities if the objective of measuring performance can be met.

COMMENT: Comments (# 1) offered rule language to consider if it chose to use the "Equalizer" standard.

RESPONSE: The Department has chosen to use the "stone" trench as the standard for comparison of substitutes for drain media. Stone filled trenches have been used for decades in Oregon. The Department has a good understanding of the expected performance of stone trenches over the life span of a system.

COMMENT: Comments (# 1) expressed the opinion that because the rules do not specify how long systems have to last, the proposed testing protocol is extremely arbitrary and would at best only provide theoretical and anecdotal information.

RESPONSE: The Department does not believe "how long systems last" is relevant to the comparison of a product used a substitute for drain media to a stone trench. The performance evaluation would simply indicate whether the product is comparable to a stone trench. The evaluation procedure supplies data via a practical scientific approach. Data from such an evaluation are not theoretical.

COMMENT: Comments (# 1) expressed the opinion that to require E-Z Drain Co. or Infiltrator Systems, Inc. to do an independent third party testing would be more than has been asked of any other manufacturers doing business in Oregon.

RESPONSE: The proposed criteria for a performance evaluation are not considered to be "independent" third party testing. The Department has never proposed a requirement for "independent" testing since it recognizes that "independent third party testing" is difficult to obtain. The performance evaluation as proposed

would be peer reviewed but sponsored by the applicant^{**} or the applicant's consultant as a third party.

COMMENT: Comments (# 4) expressed the opinion that adoption of Alternative 1 would significantly increase the cost of developing new housing not served by public sewer systems.

RESPONSE: The Department disagrees that alternative # 1 to OAR 340-071-0130(2) would cause a significant cost increase to new housing. Alternative #1 requires that all currently approved products be in compliance with the rule on the effective date. In relation to the currently approved products used as substitutes for drain media, this may mean an increase in the use of stone trenches until such time as the products can come into compliance. However stone trenches are still common in Oregon and do not significantly increase the cost of housing and in many areas do not increase the cost at all. However, alternative #2 and 3 to OAR 340-071-0130(2) have been developed to provide for currently approved products to maintain a market in Oregon while coming into compliance with the proposed rule. The Department believes that the cost to the general public would be much higher if new products are not properly evaluated before marketed for a general use.

COMMENT: Comments (# 3 and 5) expressed the opinion that a failure rate analysis is one of the best tools for evaluating system performance, it should be provided for in the proposed rules. Language was offered for consideration, to be included in proposed OAR 340-071-0116(2)(a).

RESPONSE: The Department essentially agrees. The performance evaluation that is proposed for products used a substitutes for drain media is, in effect, a comparative analysis of the rate of failure between stone trenches and the substitute for drain media under comparable and controlled settings.

COMMENT: Comment (# 16) expressed the opinion that the judge ordered the Department to pick either the EQ 24 or the standard trench and use either one to set a standard and not rewrite the entire rules which apply addition roadblocks for other new technology or have prior accepted technology go through the process all over again.

RESPONSE: The Department has chosen the standard stone trench as the standard. The proposal allows either a prescriptive process to gain conformance with the stone trench configuration or a

performance evaluation process that would indicate performance in comparison to the stone trench.

COMMENT: Comment (# 17) expressed the opinion that the prescriptive standard as revised in the original proposal violates the Court's order and will have the unnecessary impact of wiping out all alternative products.

RESPONSE: The Department developed the prescriptive standard with a safety margin. This is intentional due to the fact that ^{**} manufacturers that wish to have their product considered for approval under the prescriptive approach, in all probability do not have data that would give the Department the ability to consider performance.

COMMENT: Comment (# 17) expressed the opinion that Alternative 3 was no better than Alternative 1 or 2 in that this alternative keeps the playing field unlevel for at least eight more months, continues existing approvals that were found to be illegal by putting EZ Drain at a competitive disadvantage.

RESPONSE: The Department believes that Alternative 3 does provide for a level playing field. The performance evaluation can begin as soon as a manufacturer is able to put together an acceptable study. This can be done in far less than eight months. This alternative also allows both previously approved products to continue in the market while providing financial assurance and a warranty.

COMMENT: Comment (# 17) expressed the opinion that the bonding, ^{**}warranty and recording requirements in Alternative 3 are cost prohibitive, create excessive burdens on EZ Drain co. and Infiltrator and are unfair because they would not be imposed on other manufacturers.

RESPONSE: The warranty and financial assurance are important for providing public health protection when systems will be installed at manufacturers recommendations with no adequate performance data. The Department agrees that recording a notice may be onerous. This requirement has been deleted. The warranty and financial assurance requirements are imposed during the time of the evaluation and allow for unlimited installation while performance is being evaluated. This alternative is for currently approved products to remain on the market in Oregon. Other manufacturers would not be allowed to enter the market until such time as they have complied with the proposed rule either by

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conforming to the prescriptive standard or completing a performance evaluation.

COMMENT: Comment (# 18) expressed the opinion that although the Departments performance evaluation proposals are not likely to provide meaningful information, it is agreed that product approvals should be based on scientifically sound performance evaluations.

RESPONSE: The Department believes that the performance evaluation will give meaningful data. The only alternative to date is to rely on equations or formulas that cannot be determined to have a bearing on actual performance.

COMMENT: Comment (# 18) expressed the opinion that Alternative 1 is based on considerations that have nothing to do with the public health or the environmental or sound public policy specifically because Alternative 1 would not allow previously approved products to continue to be used even though no evidence has been shown that the products pose a threat to the public health or environment; and allow stone systems to continue to be installed even though there is almost no scientific data that indicates stone systems adequately protect public health or the environment.

RESPONSE: The Department believes that Alternative 1 responds to the court order. However, the Department is not recommending Alternative 1.

COMMENT: Comment (# 18) expressed the opinion that Alternative 3 is based on considerations that have nothing to do with the public health or the environmental or sound public policy specifically because Alternative 3 allows stone systems to continue to be installed even though there is almost no scientific data that indicates stone systems adequately protect the public health or the environment; that while allowing continued use of previously approved products Alternative 3 puts the additional burden of bonding and deed notices on a product that has not shown to be a significant risk to the public health and environment; and that the Department abdicates its responsibility to the protect public health and the environment by allowing previously approved products to be installed at manufacturers recommendations.

RESPONSE: Stone filled trenches have been used for decades in Oregon. The Department has a good understanding of the expected performance and permeability of stone trenches over the life

span of a system. With a warranty and financial assurance the Department believes the public health and environment can be protected while allowing currently approved products to be installed at manufacturers recommendations during a performance evaluation. Deed notice language has been removed from the proposal.

COMMENT: Comments (# 14 and 19) expressed the opinion that if an alternative product really needs to be studied, 3 years is not long enough, the conditions are infinitely variable and no ** manufacturer could warrant or bond the way this proposal would require.

RESPONSE: Considering that a drainfield may last for 20 years or longer, the Department believes that three years is a reasonable time if using test drainfield cells that are much less in size than a full drainfield. The Department agrees that conditions can be infinitely variable. It is preferable then to do a performance evaluation based on soil types and climatic zones than on mathematical formulas with no basis in performance.

COMMENT: Comments (# 15 and 19) expressed the opinion that a committee be put together to work on the rule over a 6 month period.

RESPONSE: The Department agrees that this rule has been developed with comparatively little advisory committee input. This process is not the Department's preferred method of rule development. However, the Department is under court ordered timelines. Any proposal by the petitioner in this case to request the court to provide additional time for adequate advisory committee input would be considered in a positive manner by the Department.

COMMENT: Comment (# 15) expressed the opinion that DEQ should use soil type and sidewall sizing for the standard.

RESPONSE: The Department is using the stone trench as its prescriptive standard. The proposal, however, also adopts a safety margin in the prescriptive standard for manufacturers of products not wishing to be considered under a performance evaluation.

Changes to the Original Rulemaking Proposal.

In response to comments, Department staff have modified the original rule proposal as follows:

In 0116(2)(a) the Department removed language relating to producing data that is "scientifically defensible."

The Department modified 340-071-0117 by adding language to the first paragraph allowing *a performance evaluation process that is technically justifiable, that has been peer reviewed and agreed upon and is acceptable to the Department...* The Department further added language in this paragraph that specifies the results of the evaluation is to *...determine approval, conditions of approval or denial of the technology or material.*"

In 0117(3) the Department removed language that required the evaluation to be of duration to realize "scientifically significant data."

In 0117(10)(e), language has been modified to reflect correct terminology. The phrase "Untreated domestic wastewater from a septic tank..." has been replaced with *"Domestic wastewater coming directly from a septic tank..."*

A new paragraph (h) has been added in 0117 (10). This language clarifies the number of systems that the Department would require to be evaluated.

In OAR 340-071-0130(2)(b)(B), language has been added to require a currently approved drain media substitute, while undergoing a performance evaluation, to be sized according to "appropriate" manufacturer's recommendation *"with Department concurrence."*

In OAR 340-071-0130(2)(b)(B)(i), language has been removed requiring a notice of the system approval and warranty to be recorded in the county land title records.

In OAR 340-071-0130(2), a new paragraph (2)(b)(B)(iii) has been added to ensure that properties are not developed with any less area than would be otherwise necessary if a full sized system were installed.

On-Site Rules Advisory Committee Membership and Report

An advisory Committee was used to review and provide constructive comment on an earlier version of the rule amendments. The committee consists of twelve members representing various of the on-site industry. A meeting was held on August 26, 1999. Several members of the Technical Review Committee also attended and participated in the discussions. The committee recommended that the department consider the various issues discussed in the meeting, consider the suggestions made by Infiltrator Systems, Inc., and consider providing for grandfathering of previously approved drain media substitute materials until a performance studies could be completed.

Attached is a list of committee members.

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**On-Site Rules Advisory Committee
1999**

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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Proposed
Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and
Materials for Application in the On-Site Program

Rule Implementation Plan

Summary of the Proposed Rule

The proposed rule will establish the criteria by which new or innovative technologies and materials proposed to be used within on-site sewage treatment and disposal systems will be evaluated and accepted for use within the state. The rule establishes both performance-based and prescriptive criteria, the choice of which to apply depends upon the level of scientific study that has been completed prior to submittal of a request for acceptance. The rule provides a method by which scientific studies may be conducted prior to statewide acceptance of the technology or material. To satisfy a court order that is specific to materials used as a substitute for drain media, the proposal includes language that is specific to this issue.

Proposed Effective Date of the Rule

After adoption by the Environmental Quality Commission, the rules will be filed and become effective by November 22, 1999.

Proposal for Notification of Affected Persons

The proposed rulemaking directly affects two companies that make products previously reviewed by the Technical Review Committee and Department staff. Both of these companies^{**} attended and provided comment on the draft rule amendments at the Rule Advisory Committee meeting held on August 26, 1999. They will be notified as soon as the Commission completes its action on the proposed rulemaking.

All persons that offered comment during the public comment period will be notified by mail of the Commission's decision.

Other businesses that come forward with requests for approval of new or innovative technologies and materials will be provided with the criteria that will be used for evaluation and approval.

Proposed Implementing Actions

The proposed rule will be applied by staff in the on-site program and the Technical Review Committee (TRC), and be used when reviewing new or innovative technology or materials. The rule provides uniform and consistent direction for the review process. The Department will provide the TRC with the latest draft of the proposed rule once the public comment period is over, so that the TRC members may be familiar with the language.

Concepts from the proposed rule will also be incorporated into application guide the Department provides to manufacturers and others that seek approval to market new and innovative technology and materials in Oregon. This is expected to improve the quality and completeness of the applications.

Proposed Training/Assistance Actions

Department staff will provide assistance to the TRC as may be necessary for implementation of the proposed rule.

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IN THE CIRCUIT COURT OF THE STATE OF OREGON
FOR THE COUNTY OF MULTNOMAH

EZ DRAIN CO., an Oregon limited liability company,
Plaintiff,
v.
STATE OF OREGON,
DEPARTMENT OF ENVIRONMENTAL QUALITY,
Respondent.

Case No. 9809-06683

JUDGMENT

On May 27 through June 2, and June 28, 1999, this matter came before the Court for judicial review of DEQ's final order concerning sizing of the EZ Drain products. The petitioner was represented by David Bartz; DEQ was represented by Assistant Attorney General, Karen Moynahan. The parties also submitted trial and closing memoranda. After considering all of the evidence and being fully advised in the premises, the Court finds the following facts to be true about the mechanism of septic system drainage trenches in Oregon:

The standard is the stone-filled trench which is 24 inches wide, and 12 inches deep, thereby providing six feet of surface contact per lineal foot. It is filled with a four inch perforated pipe, surrounded with 12 inches of washed stone.

DEQ has determined that this system is optimal to protect the environment and people of Oregon, and is therefore, the standard against which to compare all other products.

In recent years alternative products have come on the market which seek to replace the stone and pipe incorporated in the standard. EZ and Equalizer are alternate products which have been submitted to DEQ for approval.

Oregon has nine different types of soil and the standard must fit a variety of conditions.

No treatment of the water occurs in the trench itself. Treatment occurs only as the water infiltrates the soil. Therefore, maximum infiltration is necessary for maximum treatment.

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A biomat forms over time which slows down infiltration. The biomat forms primarily on the bottom of the trench, although some may form on the sides. The sidewalls therefore become the primary infiltrative surface. The top of the trench is an infiltrative surface only when the trench is full.

Once soil is disturbed, its structure changes. It becomes less able to absorb effluent. An undisturbed side wall is able to absorb more than a side wall of fill [disturbed] dirt. Since the depth and width of the trench are fixed, the only way to increase total infiltrative surface is to increase trench length.

The existence and importance of stone masking is in dispute and is not recognized in the Oregon standard.

EZ has more infiltrative surface than Equalizer.

After considering all the facts and being fully advised in the premises, the Court makes the following findings of fact concerning DEQ's process for the approval of alternative products for septic drainage trenches:

There is no requirement that DEQ permit any alternative products if they do not meet Oregon standards.

The Oregon standards do not take into account the economic benefit or detriment to any applicant.

The approvals of the two alternative products at issue in this case were not based on any independent 3rd party studies or evaluations.

DEQ staff did not prepare agency analyses or recommendations of the products prior to TRC recommendations or agency approvals.

After considering all of the evidence and the arguments of the attorneys, the Court draws the following conclusions of law concerning the approval process:

DEQ must assume that other applicants will come before the agency for approval. Those applicants have the right to know, before investing time and money, what the Oregon standard is and exactly what factors will be evaluated in measuring the new product as an alternative to that standard.

The TRC is an advisory body to the agency.

Approvals can't be dependent on who the members of the TRC or the department are.

The agency must make its final decision based on the use of standards that can be quantified. The decision is therefore an objective rather than a subjective one. This is clearly possible as shown by the memos of Mr. Olsen on pages 119-122, 169-172, 173-179 and of Mr. Marsh on pages 180-188.

A request for approval inherently includes a request for appropriate sizing. The issue is how the product does the job of the standard stone trench. A foot-to-foot approval is a finding that one foot of product does the work of one foot of the standard.

Despite any request from an applicant, DEQ must make its own independent sizing determination.

The agency must put into writing how it measures alternative products to determine sizing.

Trial testimony was very clear that DEQ has the expertise to explain, as it did to this Court, how a standard trench works. Both Mr Farrell and Mr Olsen wrote memos analyzing the process. The components of their analysis are: length, infiltrative surface, side-wall contact, fill or undisturbed side wall, storage capacity, and surge capacity. These objective criteria are the basis by which the agency must measure any product approvals. This Court does not find substantial evidence on the record that the agency decisions have been made after the application of these objective criteria.

Have EZ and Infiltrator been treated equally? There is insufficient evidence on the record for the Court to conclude that they have.

EZ is clearly an aggrieved party. It has been adversely affected in its ability to compete in the marketplace by the unequal treatment it has received in the approval process. Upon reevaluation following this Court's Order of Remand, it may or may not be better able to compete, but then it will be as a result of the free market place, not as a result of agency action.

The parties are similarly situated - each is an alternative product to be used in place of the standard stone-filled trench. Each performs the same function although their shapes and materials are different. The State attempts to distinguish them by saying that only EZ asked to be sized at less than a stone trench. That mis-characterizes the requests and more importantly the role of the agency. DEQ is charged to "protect the public health and general welfare of the people of Oregon and to maintain the quality of public water." The agency's obligation is to determine whether any alternative product meets the protective standards. Surely an inherent part of that decision is to determine how much of the product it takes to equal the performance of the standard. How can any approval process not include a sizing determination?

What about agency judgment and discretion? Clearly there are areas in which the agency must use its best professional judgment and expertise. One of these areas is in the setting of objective criteria used to evaluate the standard versus the alternative product i.e., stone masking, the effect of fill instead of undisturbed sidewall, whether the top of the trench counts as important in filtrative capacity, the effect of a biomat on the bottom and sides. Once these judgments are made as to what the criteria will be, the agency must objectively and evenly apply the criteria to all applicants without subjective judgments. How else will applicants know that

their business has been given a fair opportunity to compete. How else will prospective applicants determine whether they should even apply to compete here.

This Court has no wish to take over the function of the Agency. DEQ clearly has a vast amount of experience and expertise. All this Court knows about drainage fields is contained in the record of this case. The Court's goal is that the agency use that considerable expertise to objectively and therefore fairly set the standards for alternative drainage field products in this state and that it then objectively and therefore fairly apply those to any and all products that seek to market here.

The issue of independent testing may come up on remand. The agency could as policy make independent testing a requirement for approval. Such a requirement could in effect prevent any alternative products from being approved since the state itself was unable to find anyone willing to do such testing. It then becomes difficult to imagine that any applicant could find such an expert since the requirement of EZ was that the testing be conducted by an "independent third party" (not paid by the applicant). But if the agency chooses to make testing a requirement, it can as long as all applicants have such a requirement. To require EZ alone to provide such testing in order to be properly sized is clearly unequal treatment of a similarly situated party. If imposed, such a requirement must clearly spell out what must be tested, for how long, and under what conditions.

IT IS HEREBY ORDERED AND ADJUDGED that this case be remanded to DEQ. On remand, the agency must first determine what standard it wants to use. It must define how it measures whether a product is as or more protective than standard stone trench. It could adopt the criteria such as those used in Mr. Olsen's analysis comparing alternative products to the standard or it could decide that the standard was set when the first alternative product (Equalizer) was approved. Then, after the standard has been determined and put into writing, DEQ must use that standard to reevaluate all alternative products which have applied for approval, and it must use that standard to evaluate all future applications. [The Court uses the term "approval" to include sizing]. If the stone-filled trench is still the standard, then all products shall be compared to it. If Equalizer is the new standard, then all other products shall be compared to it. As part of the evaluations the sizing determinations must be written. Time is of the essence here for the present products, for future applicants and for Oregon homeowners who need effective and cost effective septic systems. Based on all of the information already at the State's disposal, the Court finds it reasonable for the Agency to complete a new process within 60 days.

The Court DENIES petitioner's request for attorney's fees. Although the Court has ruled against the agency, it does not find that the agency was totally without basis for its judgment in this, a new field of technology.

Dated: July 19, 1999



Linda L. Bergman
Circuit Court Judge

IN THE CIRCUIT COURT OF THE STATE OF OREGON
FOR THE COUNTY OF MULTNOMAH

EZ DRAIN CO., an Oregon limited liability company,

Petitioner,

v.

STATE OF OREGON, DEPARTMENT OF ENVIRONMENTAL QUALITY,

Respondent.

Case No. 9809-06683

ORDER GRANTING MOTION FOR RELIEF FROM JUDGMENT

This matter came on for emergency telephone hearing on August 3, 1999 on Respondent's Motion for Relief From Judgment. Petitioner was represented at the hearing by Carson Bowler of Schwabe, Williamson & Wyatt. Respondents were represented by Assistant Attorney General Karen L. Moynahan. The Court is fully advised as to the premises of the motion. Now, therefore,

IT IS HEREBY ORDERED that Respondent's motion is granted and DEQ is permitted an extension until November 19th to formally present to the Environmental Quality Commission for adoption rules to establishing the criteria for the sizing of alternative products and until December 3, 1999 to apply the rule to all previously-approved alternative products. The Court orders that DEQ comply with this deadline by substantially adhering to the following milestones: proposed rule to be drafted within 2 weeks of the effective date of this Order; presentation of the rule to the Technical Review Committee and/or Rules Advisory Committee within 2 weeks of the drafting of the proposed; public notice of the proposed rule by October 1, 1999; public hearing period from October 15 until October 20, 1999; DEQ evaluation of public testimony by

1 October 22, 1999; DEQ revisions of proposed rule and preparation of staff report to
 2 Environmental Quality Commission and presentation to Environmental Quality Commission for
 3 November 18-19, 1999 EQC meeting; application of final rule to previously-approved
 4 alternative products by December 3, 1999. These modifications to the July 13, 1999 Judgment
 5 only modify the Court's order that DEQ complete a new process within 60 days, and the
 6 remainder of the Judgment remains in effect as entered.

7 DATED this ____ day of August, 1999.

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 10 LINDA L. BERGMAN
 CIRCUIT COURT JUDGE

11 Submitted by: Karen L. Moynahan
 12 Assistant Attorney General
 13 of Attorneys for Respondent

Innovative Technology and Material for on-site systems – Alternatives
for prior approved products, Infiltrator and EZ Drain.

ALTERNATIVE 1

Amend OAR 340-071-0130(2) as follows:

- (2) Approved Disposal Required. All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve **the** use of new or innovative technologies, materials, or designs that differ from those specified within this division and OAR Chapter 340, Division 073, if such technologies, materials, or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of this division and OAR Chapter 340, Division 073, including the purposes stated in OAR 340-071-0110. **The Director may amend or repeal an approval granted pursuant to this section.** The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment. **All innovative technologies and materials that were approved by the Director prior to July 1, 1999, shall be reviewed by the Department for compliance with the applicable standards within OAR Chapter 340, Division 071. Based upon recommendations from the Department, the Director may amend each previously granted approval to conform with OAR 340-071-0116. Otherwise, approvals granted prior to July 1, 1999, for innovative technologies and materials that are determined not to comply with the OAR 340-071-0116 and other applicable standards within OAR Chapter 340, Division 71, shall be repealed.**

ALTERNATIVE 2

Amend OAR 340-071-0130(2), as follows:

(2) Approved Disposal Required.

- (a)** All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve **the** use of new or innovative technologies, materials, or designs that differ from those specified within this division and OAR Chapter 340, Division 073, if such technologies, materials, or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of this division and OAR Chapter 340, Division 073, including the purposes stated in OAR 340-071-0110. **The Director may amend or repeal an approval granted pursuant to this section.** The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment.
- (b)** **By no later than July 1, 2000, each approval for new or innovative technology or material that was granted by the Director prior to July 1, 1999, shall be repealed, unless the new or innovative technology or material is:**
- (A)** **found to be in conformance with the prescriptive standard option described in OAR 340-071-0116; or**
- (B)** **in the process of an evaluation in conformance with the performance standards stated in OAR 340-71-0116 or OAR 340-71-0117. At the conclusion of the evaluation, which shall not exceed three years, the Director's previous approval may be amended or repealed.**