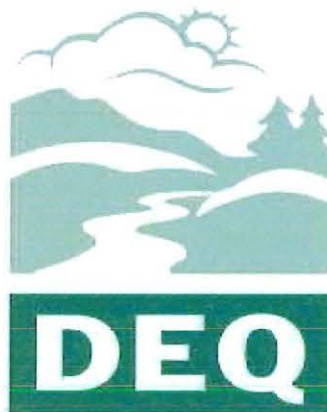


**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 07/14/2000**



**State of Oregon
Department of
Environmental
Quality**

This file is digitized in *color* using Optical Character Recognition (OCR) in a standard PDF format.

Standard PDF Creates PDF files to be printed to desktop printers or digital copiers, published on a CD, or sent to client as publishing proof. This set of options uses compression and downsampling to keep the file size down. However, it also embeds subsets of all (allowed) fonts used in the file, converts all colors to sRGB, and prints to a medium resolution. Window font subsets are not embedded by default. PDF files created with this settings file can be opened in Acrobat and Reader versions 6.0 and later.

A G E N D A

ENVIRONMENTAL QUALITY COMMISSION MEETING

July 13-14, 2000
Department of Forestry Building
4907 E. Third St.
Tillamook, 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. on Friday for the 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, July 13, 2000

The Commission will tour various sites in the Tillamook Area

6:00 p.m. Dinner with Local Officials

Friday, July 14, 2000

Beginning at 8:30 a.m.

- A. †**Rule Adoption:** Rule Revisions Regarding Contested Case Hearings and Public Records
- B. †**Rule Adoption:** Adoption of Federal Hazardous Waste Regulations Effective Through April 12, 2000
- C. †**Rule Adoption:** Amend Environmental Cleanup Rules Regarding "Hot Spots" and use of excavation and Off-site Disposal as Remedy
- D. †**Rule Adoption:** Adoption of National Emission Standards for Hazardous Air Pollutants

- E. †**Rule Adoption:** Low-Income Waiver from Enhanced Emission Test
- F. †**Rule Adoption:** Revisions to On-Site Innovative Technology Rules
- G. **Information Item:** Public Participation Procedures for Permit Decisions
- H. **Action Item:** Consideration of Tax Credit Requests
- I. **Action Item:** Permit Revocation Request Related to the Umatilla Chemical Agent Disposal Facility (UMCDCF)
- J. **Informational Item:** Update on the May Incident at the Chemical Depot at Tooele, Utah
- K. **Commissioners' Reports**
- L. **Director's Report**

†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 have lunch at 12:00 noon on Friday. No Commission business will be discussed.

The Commission has set aside September 28-29, 2000, for their next meeting. The meeting will be in Roseburg, Oregon.


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 503-229-5301, 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.

June 22, 2000

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh 
Subject: Agenda Item A, Rule Revisions Regarding Contested Case Hearings and Public Records, EQC Meeting: July 14, 2000

Background

On April 14, 2000, the Director authorized the Department to proceed to a rulemaking hearing on proposed rules to replace temporary rules adopted in February 2000 covering procedures for contested case hearings. The proposed rules also adopt the most recent version of the Attorney General's Model Rules. Additionally the rulemaking makes some changes to the rules governing public records. It updates the amount charged to cover staff time and clarifies various procedures that the Department has been following but have not been in the rules.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on May 1, 2000. 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 April 14, 2000.

A Public Hearing was held on May 22, 2000 with Susan Greco serving as Presiding Officer. Written comment was received through May 24, 2000. 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 D.

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

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

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 1999 Legislature enacted House Bill 2525 which created a Central Hearing Officer Panel, housed within the Employment Department to conduct contested case hearings on behalf of all state agencies. Agencies covered by HB 2525 must comply with the Attorney General's Hearing Panel Rules which were effective on January 1, 2000. Agencies cannot adopt procedural rules for contested case hearings unless the rules are required by state or federal law, the rules are specifically authorized by the Hearing Panel Rules, or the agency has been exempted from the Hearing Panel Rules.

In February 2000, the Environmental Quality Commission adopted temporary rules regarding contested case proceedings based on the provisions of HB 2525 and the Hearing Panel Rules. This rulemaking will permanently repeal those rules that are no longer needed by the Department and adopt procedural rules that are authorized under the Hearing Panel Rules. These include rules that limit the availability of certain procedures during the contested case, provide for public attendance at the hearings, and provide procedures for filing exceptions to a hearing officer's order before the Environmental Quality Commission.

The temporary rulemaking also made some minor housekeeping changes and adopted the most recent changes made to the Attorney General's Model Rules for use in rulemaking. Those changes are also proposed to be adopted permanently in this rulemaking.

This rulemaking is also making changes to the Department's public records rules. The majority of these changes are of a housekeeping nature or clarify already existing Department policies. The staff hourly costs have been increased to reflect increases in salaries since 1994 and the changes also clarify that the Department can recover for staff time spent locating records. Finally it clarifies that a fee waiver only entitles a person to one copy of a record and that regardless of the fee waiver, the Department may still elect to charge if the request is burdensome or voluminous.

Additionally this rulemaking makes one minor housekeeping change to OAR 340-012-0049 by incorporating the correct statutes into the rule language.

Relationship to Federal and Adjacent State Rules

There are no federal or adjacent state rules that affect this rulemaking.

Authority to Address the Issue

ORS 183.341(2) requires all agencies subject to the Administrative Procedures Act to adopt rules of procedure for use in rulemaking. Adoption of the most recent changes to the Attorney General's Model Rules satisfies this requirement.

Under various provisions of the Hearing Panel Rules, the Attorney General has given agencies the authority to adopt rules regarding certain portions of a contested case hearing. Otherwise the Department is required under HB 2525 to follow the Hearing Panel Rules.

ORS 192 allows the Department to adopt rules which reimburse it for its reasonable costs associated with record requests. Additionally it authorizes rules to protect the integrity of the Department's records and to prevent interference with the regular discharge of duties of staff.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

An advisory committee was not used to develop these rules changes since the majority of the changes do not involve policy decisions. The rule changes based on HB 2525 are required by both the statute and the Hearing Panel rules which are binding on affected agencies. The changes to the public records rules are mainly housekeeping changes or place into rule policies that the Department has already been following. The increase in the cost of staff hourly time reflects increased costs to the Department based on salary increases. Additionally the Department did not have time to convene an advisory committee due to time constraints in replacing the temporary rules adopted in February.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

This rulemaking proposal effects four different areas of the Department's rules. First, it adopts permanently the most recent version of the Attorney General's Model Rules. The Model Rules are used as the Department's procedural rules for rulemaking and non-contested case proceedings. Secondly, it makes a minor housekeeping change to Division 012 by adding in statutes that ORS 468.996 allows the Department to assess the additional civil penalties under.

Third, it permanently adopts the Attorney General's Hearing Panel Rules. All agencies covered by HB 2525 (the Central Hearing Panel) must comply with these rules in its contested case proceedings. Thus the Department has no discretion to change these rule requirements except where the Hearing Panel Rules specifically allow those changes. The Department has, in five instances, adopted its own rules or limited the availability of procedures under the Hearing Panel Rules. These include: defining the methods of service of documents as being either mail or personal delivery; defining what needs to be included in an answer; not allowing special procedures such as immediate review and motions for ruling of legal issues; limiting public

attendance at contested case hearings, and providing the procedures for review by the Environmental Quality Commission.

Fourth, this rulemaking proposes various housekeeping changes to the public records rules of the Department. While the majority of these changes are merely semantic, there are several changes in the proposed rules. First, the Department is proposing to update its hourly staff charges from \$18.00 to \$30.00 and from \$26.00 to \$40.00. This increase reflects the increase in costs since the rules were adopted in 1994. Additionally the Department will now be able to recover its costs for staff time spent 'locating' records along with 'copying' records. The Department will require a staff person to be present when a person is using their own equipment to copy a record. The Department can charge the person for this staff time. This is designed to preserve the integrity of the Department's records. Additionally, the Department proposes to recover Department of Justice attorney hourly charges when it is necessary for the Department of Justice to review records to determine if the record is exempt from disclosure.

A rule has been added that requires the Department to respond to a record request within a reasonable period of time and if it appears that the time will be greater than 30 days, to inform the requester of that fact. The Department has always been required to respond within a reasonable period of time under the Public Records Law. The other provisions of this rule are new requirements.

The rule changes also incorporate into the rule several policies that the Department has been following. Specifically the Department has offered other government entities one free copy of a record. The rule now states that they are only entitled to that one copy. Also government entities and those organizations with a fee waiver have always been informed that the Department may elect to charge them for a record request depending on the magnitude of the record request. This policy has also been placed into the rules.

Summary of Significant Public Comment and Changes Proposed in Response

A listing of all public comments received is attached to this report as Attachment D. This section will summarize the significant or most commonly made comments and the Department's response to those comments.

1. Commenters feel that the changes are part of an effort to diminish or restrict criticism of the Department's efforts or to restrict access to public records. The rules do not comply with the spirit fo ORS Chapter 192.

The Department is committed to ensuring public participation in its processes. The public must have an understanding of the Department's programs and participate in its development for the Department to be effective. The Department works to keep the public informed through mailings,

news releases, public hearings and its web page. Increasingly, the public can access the Department's records through less traditional means such as the web page.

The proposed rules make limited changes to the public records rules. The majority of the changes are housekeeping or semantic changes. Some of the proposed changes require the Department to be more responsive to the public. Except for the changes outlined in the previous section, the procedures for viewing and obtaining copies of public records have been in effect since 1994. The Department does not believe that its rules including the copy or hourly costs restrict the public's ability to view and copy its records. The majority of the public record requests that the Department receives are from attorneys, companies or consultants. For example since July 1999, of the approximately 450 public record requests that the Department issued an invoice for, 17 of those requests were not from an attorney, consultant or company. The average cost of those 17 was \$24.00. Of the approximately 350 public record requests that the Department collected money for but did not send an invoice, 120 did not have a company listed. The average cost of those 120 requests was \$12.50. There is no way to determine how many copies or hours the Department spends retrieving records that the Department did not charge for when the number of copies is small or the request did not require significant staff time. Additionally the Department does not track the number of copies made for those organizations with fee waivers.

The Department believes that its rules balance the state's policy that the public is entitled to know how government is conducting its business with protecting the integrity of its records for future use by both the Department and the public.

2. OAR 340-011-0122 limits the public's ability to attend and participate in a contested case hearing.

Prior to the adoption of the Hearing Panel Rules, the public did not have a right to attend or participate in a contested case hearing. A contested case hearing before a hearing officer is not considered a public meeting and the public does not have a right to attend the hearing. See ORS 192.690. In the Hearing Panel Rules, the Department of Justice decided to make all contested case hearings open to the public unless an agency determines that the hearing or all hearings should be closed to the public. The Department has decided that unless a participant in the hearing wants the hearing to be closed to the public, it will be open to the public. This means that unlike before the Hearing Panel Rules, the Department's contested case hearings will now be open to the public. No changes to the proposed rules were made based on these comments.

3. The proposed rules provide too limited of office hours to review records; these hours should be uniform for all offices.

The limitation on office hours is not a new requirement - see former OAR 340-011-0330(2)(d). The rule provision is designed to deal with the reality of limited staff in some offices. This limitation has been in place since 1994 and the public is still able to review records during nearly

all business hours at the Department's larger offices. No changes to the proposed rules were made based on these comments.

4. Staff time/Department of Justice time charges are too high; should not include agency overhead charges.

The Department is authorized under ORS 192.440(3) to establish fees to reimburse it for its actual costs in responding to a record request. The hourly charge reflects the cost of an Office Specialist 2 and an Information Systems Specialist including salary, benefits, services, supplies and agency indirect costs. The Department of Justice charge is based on the hourly fee the Department pays for its attorney's time. No changes to the proposed rules were made based on these comments.

5. The public should not be required to pay for Department of Justice attorney time.

The rule will reimburse the DEQ for its actual costs in responding to a record request. The Department will only be able to recover costs for attorney time spent reviewing records to see if the record is exempt from disclosure. It will not be able to recover costs associated with legal advice on public record requests. No changes to the proposed rules were made based on these comments.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

The majority of the changes proposed by this rule proposal are already being implemented by the Department. For example, each Department office has already established hours for records review based on its staff availability. The invoice forms used by the Department will be updated to reflect increased costs. The Hearing Panel Rules have been in effect since January 1, 2000. The changes to the Department's contested case rules have been in effect since February and the hearings have been conducted under these rules since that time.

Recommendation for Commission Action

It is recommended that the Commission adopt the rules/rule amendments regarding contested case hearings and public records as presented in Attachment A of the Department Staff Report.

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. Changes to Rules Based on Public Comment

Reference Documents (available upon request)

Written Comments Received (listed in Attachment C)

HB 2525

Attorney General's Uniform, Model and Hearing Panel Rules, effective January 1, 2000

Report Prepared By: Susan M. Greco

Phone: (503) 229-5213

Date Prepared: June 26, 2000

DIVISION 11

RULES OF GENERAL APPLICABILITY AND ORGANIZATION

NOTE: On February 15, 2000, DEQ 01-2000 temporarily suspended OAR 340-011-0102, 340-011-0116 and 340-011-0142. It also adopted new rule numbers 340-011-0122, 340-011-0124 and 340-011-0131 and amended rule numbers 340-011-0005, 340-011-0010, 340-011-0097, 340-011-0098, 340-011-0103, 340-011-0107, 340-011-0132 and 340-011-0136. For a copy of the temporary rule changes, please contact the Department of Environmental Quality.

Rules of Practice and Procedure

340-011-0005

Definitions

The words and phrases used in this Division have the same meaning given them in ORS 183.310, the Hearing Panel Rules or the Model Rules as context requires unless otherwise defined in this division.

~~Additional terms are defined as follows unless context requires otherwise~~

~~(1) "Adoption" means the carrying of a motion by the Commission with regard to the subject matter or issues of an intended agency action.~~

~~(2) "Agency Notice" means publication in OAR and mailing to those on the list as required by ORS 183.335(6).~~

~~(3) "Commission" means the Environmental Quality Commission.~~

~~(24) "Department" means the Department of Environmental Quality.~~

~~(35) "Director" means the Director of the Department or the Director's authorized delegates.~~

~~(46) "Filing" means receipt in the office of the Director or other office of the Department. Such filing is adequate where filing is required of any document with regard to any matter before the Commission, Department or Director, except a claim of personal liability.~~

~~(57) "Hearing Panel Rules" means the Attorney General's Rules, OAR 137-003-0501 through 137-003-0700.~~

~~(6) "Model Rules" or "Uniform Rules" means the Attorney General's Uniform and Model Rules of Procedure, OAR 137-001-0005 through 137-0034-050080, excluding OAR 137-001-0008 through 137-001-0009 as amended and in effect on January 1, 2000-September 15, 1997.~~

~~(8) "Presiding Officer" or "Hearing Officer" means the Commission, its Chairman, the Director, or any individual designated by the Commission or the Director to preside in any contested case, public, or other hearing. Any employee of the Department who actually presides in any such hearing is presumptively designated by the Commission or Director, such presumptive designation to be overcome only by a written statement to the contrary bearing the signature of the Commission Chairman or the Director.~~

~~(7) "Participant" means the person served with notice under OAR 340-011-0097, a person granted either party or limited party status in the contested case under OAR 137-003-0535, an agency participating in the contested case under OAR 137-003-0540, and the Department.~~

~~(8) "Person" means any individual, partnership, corporation, association, governmental subdivision, public or private organization, or agency.~~

Stat. Auth.: ORS 183.341 & ORS 468.020

Stats. Implemented: ORS 183.341

Hist.: DEQ 69(Temp), f. & ef. 3-22-74; DEQ 72, f. 6-5-74, ef. 6-25-74; DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 122, f. & ef. 9-13-76; DEQ 25-1979, f. & ef. 7-5-79; DEQ 7-1988, f. & cert. ef. 5-6-88; DEQ 10-1997, f. & cert. ef. 6-10-97; DEQ 3-1998, f. & cert. ef. 3-9-98

Rulemaking

340-011-0010

Notice of Rulemaking

(1) Notice of intention to adopt, amend, or repeal any rule(s) shall be in compliance with applicable state and federal laws and rules, including ORS Chapter 183 and sections (2) and (3) of this rule.

~~(2) In addition to the news media on the list established pursuant to ORS 183.335(6), a copy of the notice shall be furnished to such news media as the Director may deem appropriate. To the extent required by ORS Chapter 183, before adopting, amending or repealing any permanent rule, the Department will give notice of the rulemaking:~~

~~(a) In the Secretary of State's Bulletin referred to in ORS 183.360 at least 14 days before the hearing regarding the rulemaking;~~

~~(b) By mailing a copy of the notice to persons on the Department's mailing lists established pursuant to ORS 183.335(7) and to the legislators specified in ORS 183.335(14) at least 28 days before the hearing regarding the rulemaking;~~

~~(c) In addition to the news media on the list referenced in (b), to other news media the Director may deem appropriate.~~

(3) In addition to meeting the requirements of ORS 183.335(1), the notice shall contain the following:

(a) Where practicable and appropriate, a copy of the rule proposed to be adopted, amended or repealed;

(b) Where the proposed rule is not set forth verbatim in the notice, a statement of the time, place, and manner in which a copy of the proposed rule may be obtained and a description of the subject and issues involved in sufficient detail to inform a person that his interest may be affected;

(c) ~~Whether the Presiding Officer will be a hearing officer or a member of the Commission, a~~ member of the Commission, an employee of the Department, or an agent of the Commission;

(d) ~~The manner in which persons not planning to attend the hearing may offer for the record written~~ comments ~~testimony~~ on the proposed rule.

Stat. Auth.: ORS 183 & ORS 468

Stats. Implemented: ORS 183.025 & ORS 183.335

Hist.: DEQ 69(Temp), f. & ef. 3-22-74; DEQ 72, f. 6-5-74, ef. 6-25-74; DEQ 122, f. & ef. 9-13-76

Contested Cases

340-011-0097

Service of Written Notice

~~(1) Whenever a statute or rule requires that the Commission or Department serve a written notice or final order upon a party other than for purposes of ORS 183.335 or for the purposes of notice to members of the public in general, the notice or final order shall be personally delivered or sent by registered or certified mail.~~

~~(2) The Commission or Department perfects service of a written notice of opportunity to request a contested case hearing when the notice is posted, addressed, mailed to, or personally delivered to:~~

~~(a) The person party; or~~

~~(b) Any other person designated by law as competent to receive service of a summons or notice for the party person; or~~

~~(c) Following appearance of Counsel for the party person, the party's person's counsel.~~

(3) A person party holding a license or permit issued by the Department or Commission or an applicant ~~therefor~~ for a license or permit, shall will be conclusively presumed able to be served at the address given in ~~his~~ the license or permit application, as it may be amended from time to time, ~~until the expiration date of the license or permit.~~

(4) Service of written notice may be proven by a certificate executed by the person effecting service.

~~(5) In all cases not specifically covered by this section, a rule, or a statute, a writing to a person, if mailed to said person at his last known address, is rebuttably presumed to have reached said person in a timely fashion, notwithstanding lack of certified or registered mailing. Regardless of other provisions in this rule, documents sent by the Department through the U.S. Postal Service by regular mail to a person's last known address, are presumed to have been received, subject to evidence to the contrary.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.341, ORS 183.413 & ORS 183.415~~

~~Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 122, f. & ef. 9-13-76~~

340-011-0098

Contested Case Proceedings Generally

~~Except as specifically provided in OAR 340-011-0132 Chapter 340, Division 011, contested cases shall will be governed by the Attorney General's Model Rules of Procedure, OAR 137-003-0001 through 137-003-0093 the Hearing Panel Rules. In general, a contested case proceeding is initiated when a decision of the Director or Department is appealed to the Commission an answer to a notice under OAR 340-011-0097 is received by the Department. Therefore, as used in the Model Rules, the The terms "agency", "governing body", and "decision maker" generally should will be interpreted to mean "Commission Department". The term "agency decision maker" generally will may also be interpreted to mean "Commission" be Department where context requires.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.341, ORS 183.413 & ORS 183.415~~

~~Hist.: DEQ 7-1988, f. & cert. ef. 5-6-88~~

340-011-0102

Non Attorney Representation

~~Pursuant to the provisions of Section 3 of Chapter 833, Oregon Laws 1987, and the Attorney General's Model Rule OAR 137-003-0008, a person may be represented by an attorney or by an authorized representative in a contested case proceeding before the Commission or Department.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.457~~

~~Hist.: DEQ 7-1988, f. & cert. ef. 5-6-88~~

340-011-0103

Agency Representation by Enforcement Section

(1) The Enforcement Section staff is authorized to appear on behalf of the Department in contested case hearings involving civil penalties or other orders issued under OAR Chapter 340, Division 012, and/or Department Orders.

(2) The Enforcement Section staff shall not present legal argument as defined under OAR 137-003-0545 on behalf of the Department in contested case hearings.

~~(3) "Legal argument" as used in this rule includes argument on:~~

~~(a) The jurisdiction of the Department to hear the contested case;~~

~~(b) The constitutionality of a statute or rule or the application of a constitutional requirement to the Department; and~~

~~(c) The application of court precedent to the facts of the particular contested case proceeding;~~

~~(4) "Legal argument" as used in this rule does not include presentation of evidence, examination or cross-examination of witnesses, factual argument or argument on:~~

~~(a) The application of the facts to the statutes or rules directly applicable to the issues in the contested case;~~

~~(b) Comparisons of prior actions of the Department in handling similar situations;~~

~~(c) The literal meaning of the statute or rules directly applicable to the issues in the contested case; or
(d) The admissibility of evidence or the correctness of procedures being followed.~~

~~(5) When the Enforcement Section staff is representing the Department in a contested case hearing, the hearings officer shall advise the Department representative of the manner in which objections may be made and matters preserved for appeal. Such advice is of a procedural nature and does not change applicable law on waiver or the duty to make timely objections. Where such objections involve legal argument, the hearings officer shall provide a reasonable opportunity for the Department representative to consult legal counsel and shall permit legal counsel to file written legal argument within a reasonable time after conclusion of the hearing but before final disposition.~~

Stat. Auth.: ORS 183.335 & ORS 468.020

Stats. Implemented: ORS 183.450 & ORS 183.341

Hist.: DEQ 16-1991, f. & cert. ef. 9-30-91

340-011-0107

Answer Required: Consequences of Failure to Answer

~~(1) Unless an answer is not required by statute or rule, or the requirement to file an answer is waived in the notice, waived in the notice of opportunity for a hearing, and except as otherwise provided by statute or rule, a person party who has been served written with notice of opportunity for a hearing under OAR 340-011-0097 shall have 20+ days from the date of mailing or personal delivery of the notice in which to file with the Director Department a written answer and application a request for hearing unless another timeframe is required by statute or rule.~~

~~(2) In the answer, the person must party shall admit or deny all factual matters and shall affirmatively allege any and all affirmative claims or defenses the party may have and the reasoning in support thereof. Except for good cause shown:~~

~~(a) Factual matters not controverted will shall be presumed admitted;~~

~~(b) Failure to raise a claim or defense will shall be presumed to be waiver of such claim or defense;~~

~~(c) New matters alleged in the answer will shall be presumed to be denied unless admitted in subsequent pleading or stipulation by the Department or Commission; and~~

~~(d) Subject to ORS 183.415(10) evidence will shall not be taken on any issue not raised in the notice and the answer unless such issue is specifically raised by a subsequent petitioner for party status and is determined to be within the scope of the proceeding by the presiding officer.~~

~~(3) A late hearing request may be accepted by the Department if the Department determines that the cause for the late request was beyond the reasonable control of the person.~~

~~(4) In the absence of a timely answer, the Director on behalf of the Commission or Department may issue a default order and judgment, based upon a prima facie case made on the record, for the relief sought in the notice.~~

Stat. Auth.: ORS 183.335 & ORS 468.020

Stats. Implemented: ORS 183.430 & ORS 183.435

Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 122, f. & ef. 9-13-76; DEQ 7-1988, f. & cert. ef. 5-6-88

340-011-0116

Subpoenas

~~Subpoenas:~~

~~(1) Upon a showing of good cause and general relevance any party to a contested case shall be issued subpoenas to compel the attendance of witnesses and the production of books, records and documents.~~

~~(2) Subpoenas may be issued by:~~

~~(a) A hearing officer; or~~

~~(b) A member of the Commission; or~~

~~(c) An attorney of record of the party requesting the subpoena.~~

~~(3) Each subpoena authorized by this section shall be served personally upon the witness by the party or any person over 18 years of age.~~

~~(4) Witnesses who are subpoenaed, other than parties or officers or employees of the Department or Commission, shall receive the same fees and mileage as in civil actions in the circuit court.~~

~~(5) The party requesting the subpoena shall be responsible for serving the subpoena and tendering the fees and mileage to the witness.~~

~~(6) A person present in a hearing room before a hearing officer during the conduct of a contested case hearing may be required, by order of the hearing officer, to testify in the same manner as if he were in attendance before the hearing officer upon a subpoena.~~

~~(7) Upon a showing of good cause a hearing officer or the Chairman of the Commission may modify or withdraw a subpoena.~~

~~(8) Nothing in this section shall preclude informal arrangements for the production of witnesses or documents, or both.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.341 & ORS 183.440~~

~~Hist.: DEQ 122, f. & ef. 9-13-76; DEQ 25-1979, f. & ef. 7-5-79; DEQ 7-1988, f. & cert. ef. 5-6-88~~

340-011-0122

Public Attendance at a Contested Case Hearing

~~Contested case hearings before a hearing officer may be closed to the public upon the request of a participant in the contested case hearing.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.430 & ORS 183.435~~

340-011-0124

Immediate Review by Agency; Motion for Ruling on Legal Issues

~~Immediate review by the agency and motions for ruling on legal issues will not be allowed. (See OAR 137-003-0580 or OAR 137-003-0640.)~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.430 & ORS 183.435~~

340-011-0131

Permissible Scope of a Contested Case Hearing

~~(a) The scope of a contested case hearing will be limited to those matters that are relevant and material to either proving or disproving the matters asserted in the Department's notice under OAR 340-011-0097. Equitable remedies will not be considered by a hearing officer.~~

~~(b) Under no circumstances will the hearing officer reduce or mitigate a civil penalty below the minimum established in the schedule of civil penalties contained in OAR Chapter 340, Division 12.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.430 & ORS 183.435~~

340-011-0132

Alternative Procedure for Entry of a Proposed and Final Order in a Contested Cases Resulting from Appeal of Civil Penalty Assessments

~~In accordance with the procedures and limitations which follows, the Commission's designated Hearing Officer is authorized to enter a final order in contested cases resulting from imposition of civil penalty assessments:~~

~~(1) Hearing Officer's Final Order: In a contested case if a majority of the members of the Commission have not heard the case or considered the record, the Hearing Officer shall prepare a written Hearing Officer's Final Order including findings of fact and conclusions of law. The original of the Hearing Officer's Final Order shall be filed with the Commission and copies shall be served upon the parties in accordance with OAR 340-011-0097 (regarding service of written notice).~~

~~(12) Commencement of Appeal to the Commission Review by the Commission:~~

~~(a) Copies of the hearing officer's Order will be served on each of the participants in accordance with OAR 340-011-0097. The Hearing Officer's Final Order shall will be the final order of the Commission unless within 30 days from the date of mailing, or if not mailed then from the date of personal service, any of the parties a participant or, a member of the Commission, or the Department files with the Commission and serves upon each party and the Department a Notice of Appeal participant a Petition for Commission Review. A proof of service thereof shall should also be filed, but failure to file a proof of service shall will not be a ground for dismissal of the Notice of Appeal Petition.~~

~~(b) The timely filing and service of a Notice of Appeal Petition is a jurisdictional requirement for the commencement of an appeal to the Commission and cannot be waived. A Notice of Appeal which is filed or served late shall not be considered and shall not affect the validity of the Hearing Officer's Final Order which shall remain in full force and effect;~~

~~(c) The timely filing and service of a sufficient Notice of Appeal to the Commission shall Petition will automatically stay the effect of the hHearing oOfficer's Final Order.~~

~~(d) In any case where more than one participant timely serves and files a Petition, the first to file will be the Petitioner and the latter the Respondent.~~

~~(23) Contents of Notice of Appeal the Petition for Commission Review. A Notice of Appeal shall Petition must be in writing and need only state the party's participant's or a Commissioner's intent that the Commission review the hHearing oOfficer's Final Order.~~

~~(34) Procedures on Appeal Review:~~

~~(a) Appellant's Petitioner's Exceptions and Brief: — Within 30 days from the date of service or filing of his Notice of Appeal the Petition, whichever is later, the Appellant-Petitioner shall must file with the Commission and serve upon each other party participant written exceptions, brief and proof of service. The Such exceptions must shall specify those findings and conclusions objected to and reasoning, and shall also include proposed alternative findings of fact, conclusions of law, and order with specific references to those portions the parts of to the record upon which the party Petitioner relies. Matters not raised before the hHearing oOfficer shall will not be considered except when necessary to prevent manifest injustice. In any case where opposing parties timely serve and file Notices of Appeal, the first to file shall be considered to be the appellant and the opposing party the cross appellant;~~

~~(b) Appellee's Respondent's Brief: — Each party so served with exceptions and brief shall then participant will have 30 days from the date of service or filing of the Petitioner's exceptions and brief, whichever is later, in which to file with the Commission and serve upon each other party participant an answering brief and proof of service. If multiple Petitions have been filed, the Respondent must also file exceptions as required in (3)(a) at this time.~~

~~(c) Reply Brief: — Except as provided in subsection (d) of this section, each party served with an answering brief shall Each participant will have 20 days from the date of service or filing of a Respondent's brief, whichever is later, in which to file with the Commission and serve upon each other party participant a reply brief and proof of service.~~

~~(d) Cross Appeals — Should any party entitled to file an answering brief so elect, he may also cross appeal to the Commission the Hearing Officer's Final Order by filing with the Commission and serving upon each other party in addition to an answering brief a Notice of Cross Appeal, exceptions (described in subsection (a) of this section), a brief on cross appeal and proof of service, all within the same time allowed for an answering brief. The appellant cross-appellee shall then have 30 days in which to serve~~

~~and file his reply brief, cross answering brief and proof of service. There shall be no cross reply brief without leave of the Chairman or the Hearing Officer;~~

~~(e)(d) Briefing on Commission Invoked Review: -----When one or more members of the Commission commence an appeal to the Commission pursuant to subsection (2)(a) of this rule wish to review a hearing officer's Order, and where no party to the case participant has timely served and filed a Notice of Appeal Petition, the Chairman shall will promptly notify the parties participants of the issue that the Commission desires the parties participants to brief and the schedule for filing and serving briefs. The Chairman will also establish the schedule for filing of briefs. The parties shall participants must limit their briefs to those issues. Where one or more members of the Commission have commenced an appeal to the Commission and a party has also timely commenced such a proceeding When the Commission wishes to review a hearing officer's Order and a participant also requested review, briefing shall will follow the schedule set forth in subsections (a), (b), and (c), (d), and (f) of this section.;~~

~~(ef) Extensions: --- The Chairman or a Hearing Officer the Director, upon request, may extend any of the time limits contained in this rule section except for the filing of a Petition under subsection (1) of this rule. Each extension request must shall be made in writing and be served upon each party participant. Any request for an extension may be granted or denied in whole or in part.;~~

~~(gf) Dismissal-Failure to Prosecute: -----The Commission may dismiss any appeal or cross appeal Petition if the appellant or cross appellant-Petitioner fails to timely file and serve any exceptions or brief required by these rules.;~~

~~(gh) Oral Argument: --- Following the expiration of the time allowed the parties participants to present exceptions and briefs, the Chairman may at his discretion will schedule the appeal for oral argument before the Commission.;~~

~~(4i) Additional Evidence: A request to present additional evidence will be submitted by motion and be accompanied by a statement specifying the reason for the failure to present the evidence to the hearing officer. If the Commission grants the motion or decides on its own motion that additional evidence is necessary, the matter will be remanded to a hearing officer for further proceedings.~~

~~(5) Scope of Review: -----In an appeal to the Commission of a Hearing Officer's Final Order, the The Commission may, substitute its judgment for that of the hHearing Oofficer in making any particular finding of fact, conclusion of law, or order except as limited by OAR 137-003-0665. As to any finding of fact made by the Hearing Officer the Commission may make an identical finding without any further consideration of the record.;~~

~~(j) Additional Evidence -----In an appeal to the Commission of a Hearing Officer's Final Order the Commission may take additional evidence. Requests to present additional evidence shall be submitted by motion and shall be supported by a statement specifying the reason for the failure to present it at the hearing before the Hearing Officer. If the Commission grants the motion, or so decides of its own motion, it may hear the additional evidence itself or remand to a Hearing Officer upon such conditions as it deems just.~~

~~(S) In exercising the authority to enter a final order pursuant to this rule, the Hearing Officer:~~

~~(a) Shall not reduce the amount of civil penalty imposed by the Director unless:~~

~~(A) The department fails to establish some or any of the facts regarding the violation; or~~

~~(B) New information is introduced at the hearing regarding mitigating and aggravating circumstances not initially considered by the Director. Under no circumstances shall the Hearing Officer reduce or mitigate a civil penalty based on new information submitted at the hearing below the minimum established in the schedule of civil penalties contained in Commission rules.~~

~~(b) May elect to prepare proposed findings of fact and a proposed order and refer the matter to the Commission for entry of a final order pursuant to the general procedure for contested cases prescribed under OAR 340-011-0098.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

Stats. Implemented: ORS 183.464

Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 115, f. & ef. 7-6-76; DEQ 25-1979, f. & ef. 7-5-79; DEQ 7-1988, f. & cert. ef. 5-6-88

340-011-0136

Powers of the Director

(1) ~~Except as provided by OAR 340-012-0075, the~~The Director, on behalf of the Commission, may execute any written order which has been consented to in writing by the parties adversely affected thereby.

(2) The Director, on behalf of the Commission, may prepare and execute written orders implementing any action taken by the Commission on any matter.

(3) The Director, on behalf of the Commission, may prepare and execute orders upon default where:

(a) ~~The adversely affected parties have been properly notified of the time and manner in which to request a hearing and have failed to file a proper, timely request for a hearing~~A person receiving notice under OAR 340-011-0097 has failed to timely request a hearing; or

(b) ~~Having requested a hearing, the adversely affected party has failed to appear at the hearing or at any duly scheduled prehearing conference~~The person requesting the contested case hearing failed to appear at the hearing or informed either the hearing officer or the Department that he will not appear at the hearing; or

(c) ~~The person receiving notice under OAR 340-011-0097 filed a timely request for a hearing but later informs the Department that he withdraws the request for a hearing.~~

(4) ~~Default orders orders based upon failure to appear shall~~will be issued only upon the making of a prima facie case on the record.

Stat. Auth.: ORS 183.335 & ORS 468.020

Stats. Implemented: ORS 183.464

Hist.: DEQ 122, f. & ef. 9-13-76

340-011-0142

Rules/Applicability

(1) ~~The Environmental Quality Commission hereby adopts the Attorney General's Model Rules numbered OAR 137-003-0001 through 137-003-0093 and OAR 137-004-0010 (Model Rules) for application to any contested case conducted by or for the Commission on denial pursuant to OAR 340-048-0035 of 401 certification of the proposed Salt Caves Hydroelectric Project.~~

(2) ~~The Model Rules shall only apply to the contested case (or cases) described in section (1) of this rule. The Commission's rules for conduct of contested cases, OAR 340-011-0097 through 340-011-0140, shall continue to apply in all other cases. These rules shall become effective upon filing of the adopted rule with the Secretary of State.~~

~~Stat. Auth.: ORS 183.335 & ORS 468.020~~

~~Stats. Implemented: ORS 183.341~~

~~Hist.: DEQ 19-1987, f. & ef. 10-15-87~~

Public Records Access and Reproduction

340-011-0310

Purpose

Increased public involvement and awareness of environmental issues has placed greater demands on viewing and copying Department of Environmental Quality (DEQ or Agency) records. This rule OAR 340-011-0310 et seq. allows the Department to ~~recoup actual~~recover its costs for providing these services, as authorized by Oregon statute. Furthermore, these rules serve to ensure that all Department records remain available for viewing and ~~remain~~intact for future use.

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.410 - ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0330

Public Access to Public Records Requests for Review or to Obtain Copies of Public Records

(1) The right to review records includes the right to review the original record where practicable. It does not provide the right to the requestor to locate the record himself or to review the original record when it contains exempt material. Requests for Public Records

(2a) Request to view review or copy public records must should be made to, and shall will be handled by, the appropriate Division, Section, Regional Office or Department unit staff maintaining the records requested. For questions, contact the Department's DEQ gGeneral Information number listed in the phone book.

(b) Requests may be made in writing, by telephone, or in person to schedule an appointment to review records or to obtain copies.

(c) Requests for Department records should be as specific as possible, including type of record, subject matter, approximate record date, and relevant names of parties. Whenever possible, the request should include the site location or county of the facility if known. If the request is unclear or overly burdensome, the Department may request further clarification of the request.

(d) Persons may request that Department staff retrieve and make copies of public records.

(2) Responding to Requests:

(a) The Department may require written clarification or specification of a record request.

(b) If the Department staff cannot identify specific records responsive to a record request, such staff the Department may elect to provide copies of general files or distinct sections of records that are likely to contain the requested records. For voluminous reproduction requests, Department staff may require payment in advance. In response to voluminous record requests, the Department may require that a person review or obtain copies of records at designated Department locations where the records are maintained.

(c) Based on space, staff and equipment availability, and prior record reproduction requests, the Department shall make reasonable efforts to service walk-in requests for hardcopy reproductions.

(d) In order to prevent interference with the regular discharge of duties of Department staff, each Division, Region, Section, Branch, Laboratory, or unit of the Department shall limit daily hours scheduled for public viewing and copying of Department records accordingly: Regular business hours excluding the hours of noon to 1:00 p.m., and the last hour of the business day. Department offices with sufficient staffing shall have the option of allowing review and copying of public records during the regular business hours of the day.

(4) Requests to either review or obtain copies of records may be made in writing, by telephone or in-person. The Department may require a request to be made in writing if needed for clarification or specification of the record request.

(a) Each Department office will establish daily hours during which the public may review the Department's records. The hours maintained in each office will be determined by staff and equipment available to accommodate record review and reproduction.

(b) Pursuant to ORS 192.430(1) and this rule, each Division, Region, or Branch Department office shall designate and provide a supervised space, if available, for viewing records. This shall space will accommodate at least one reviewer at a time, with space for additional reviewers provided as available.

(c) The Department accommodates public records requests from persons with disabilities in accordance with the Americans with Disabilities Act.

(de) The Department's ability to accommodate in-person requests may be limited by staff and equipment availability. Additionally, prior to making records available for public review, the Department staff shall ascertain whether the records requested are exempt from public disclosure under ORS chapter 192 and other applicable law.

(5) Time to provide requested records: The Department will respond to a record request as quickly as reasonable. This time frame will vary depending on the volume of records requested, staff availability to respond to the record request, the difficulty in determining whether any of the records are exempt from disclosure, and the necessity of consulting with legal counsel. If the Department determines that it will require more than 30 days to respond to a record request, it will inform the requestor of the estimated time necessary to comply with the record request.

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.420 & ORS 192.430

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0340

Procedures - Costs for Hardcopy Reproductions Record Review and Copying

(1) Requests for Copying by DEQ Staff: Persons wishing to obtain hardcopies of public records may direct such requests to appropriate DEQ designated records personnel.

(2) Outside Copying/Loaning Records — In order to protect the integrity of Department records, no records may be loaned or taken off-premises by a person besides Department staff or agency personnel unless the Department has a contract with the person removing the records.

(3) Hardcopy Records:

(a) Persons Requesting to Make Copies Themselves: Requestors are allowed to use their own equipment to make copies of requested records depending on the facilities available within each Department office. Use of non-Department equipment within a Department office will not be allowed without staff being present. Staff time will be charged at \$30.00 per hour. The Department office may determine that use of non-Department equipment will not be allowed based on:

(A) Staff time available to oversee the copying; and

(B) Space limitations for the equipment.

(a) Subject to reasonable restrictions, staff approval, staff supervision, and equipment availability, a record reviewer may use DEQ equipment and DEQ paper to make copies of Department records. All such requests must be approved by designated records personnel overseeing the specific records requested.

(b) Subject to reasonable restrictions, staff approval, staff supervision, and equipment and space availability, the record reviewer may use the reviewer's own equipment and paper to make copies of Department records. Prior notice is required, and must be approved by the Section Manager overseeing the records requested.

(4) Double-Sided Copies: Department staff shall provide double-sided hardcopy pages when feasible.

(5) Fee schedule for Hardcopy Reproductions:

(b) Reimbursement of Department staff time: An hourly rate of \$30.00 will be assessed for any staff time greater than 15 minutes spent locating records, reviewing records to delete exempt material, supervising the inspection of records, copying records, certifying records, and mailing records. The Department may charge for the cost of searching for records regardless of whether the Department was able to locate the requested record.

(c) Reimbursement of Department of Justice Attorney General time: If necessary to respond to a record request, an hourly rate of \$90.00 will be assessed for any Department of Justice Attorney General time spent reviewing records to delete exempt material.

(d) Copy Charges: The fee schedule listed below is reasonably calculated to reimburse the Department for the actual costs of making records available and providing copies of records, record reproduction services and products. The per-page copy charge includes 15 minutes of staff time for routine file searches.

~~(Aa) Readily available pre-printed materials such as guidance documents, statutes, forms, etc. ----- \$0.10 (per page)~~

~~(b) Department DEQ Administrative Rule sets:~~

~~(iA) Complete set: ----- \$35.00;~~

~~(iiB) Update Service: ----- \$115.00 (per annum);~~

~~(iiiC) Individual Divisions: ----- \$0.05 (per page).~~

~~(c) Readily accessible records requiring average staff time to retrieve and refile documents:~~

~~(BA) Hard DEQ staff copy (black and white, letter or legal size): ----- \$0.25 (per page); Costs for other sized or color copies will be the Department's actual cost plus staff time.~~

~~(B) Self-copy ----- \$0.15 (per page);~~

~~(d) Excessive staff time performing record retrieval/sorting and related services:~~

~~(A) DEQ staff copy ----- \$0.25 (per page);~~

~~(B) Self-copy ----- \$0.15 (per page);~~

~~[NOTE: In addition to per page copy charge, an hourly rate of \$18.00 per hour will be assessed with a minimum of \$4.50.]~~

~~(Ce) Additional charges will be assessed as follows:~~

~~(iA) Fax charges: ----- \$0.50 (per page);~~

~~(Bii) Document certification: processing ----- \$2.50 (per certificate);~~

~~(iiiC) Invoice processing: ----- \$5.00 (per invoice);~~

~~(ivD) Express Mailing: ----- actual or minimum of \$9.00;~~

~~(vE) Archive Retrieval: ----- actual or minimum of \$10.00.~~

~~(f) For purposes of this rule, a "page" shall be defined as a single impression on one side of a piece of paper. Whenever feasible, the Department will provide double-sided copies of a record request. Each side of a double-sided copy will constitute one page.~~

(3) Electronic Records:

(a) Copies of requested electronic records may be provided in the format or manner maintained by the Department. The Department will perform all downloading, reproducing, formatting and manipulating of records. Public access to Department computer terminals may be possible as such terminals become available in the future.

(b) Reimbursement of Department staff time: An hourly rate of \$40.00 will be assessed for any staff time spent locating records, reviewing records to delete exempt material, supervising the inspection of records, downloading and manipulating records, certifying records and mailing records. The Department may charge for the cost of searching for records regardless of whether the Department was able to locate the requested records.

(c) Reimbursement of Department of Justice Attorney General time: If necessary to respond to a record request, an hourly rate of \$90.00 will be assessed for any Department of Justice Attorney General time spent reviewing records to delete exempt material.

(d) Hardcopy printouts (black and white; legal or letter size): \$0.25 per page. Costs for other sized or color copies will be the Department's actual cost plus staff time.

(e) Other media (if provided by the Department):

(A) Diskettes: \$1.00 each;

(B) 2 hour VHS videocassette: \$6.00 each;

(C) Magnetic Audio Tapes: \$3.00 each;

(D) Compact Disks: \$3.00 each.

(f) Additional charges:

(A) Fax charges: \$0.50 (per page);

(B) Document certification: \$2.50 (per certificate);

(C) Invoice processing: \$5.00 (per invoice);

(D) Express Mailing: actual or minimum of \$9.00;

(E) Archive Retrieval: actual or minimum of \$10.00.

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0350

~~Procedures for Electronic Record Reproductions~~

~~The DEQ maintains numerous databases and electronic records. Different records are maintained by Divisions, Regions, Branch Offices, and Sections. Requests to obtain a copy of any electronic record shall be directed to, and obtained by, staff in the program or section overseeing the data requested.~~

~~(1) Making Copies of Electronic Records:~~

~~(a) As the Oregon Public Records law does not impose a duty to create public records, copies of requested data will be provided in the format/manner maintained by the Department.~~

~~(b) Department staff may elect to perform all downloading, reproducing, formatting, and manipulating of data. Public access to Department computer terminals may be possible as such terminals become available in the future.~~

~~(2) Fee Schedule for Electronic Reproduction-----The fee schedule listed below is reasonably calculated to reimburse the Department for the actual costs of making records available and providing record reproduction services and products. The Department prefers that the requesting party provide the media to be used for data reproduction. If the requestor does not supply the media, the Department may supply the media, as available, at the following rates:~~

~~(3) Media/Charge:~~

~~(a) Tapes:~~

~~(A) 9 track 1/2" reel ----- \$25.00 each;~~

~~(B) 1600 or 6250 BPI ----- \$25.00 each.~~

~~(b) Diskettes: 5 1/4 or 3 1/2 inch ----- \$1.00 each.~~

~~(c) 2-hr VHS: Videocassette ----- \$6.00 each.~~

~~(d) Magnetic Audio Tapes: 90-minute ----- \$3.00 each.~~

~~(4) Reproduction Fees:~~

~~(a) Staff time to retrieve, extract, format, download, copy, and run hardcopies of database records shall be assessed at \$26.00 per hour with a minimum charge of \$6.50. Hardcopy printouts ----- \$0.10 (per page)~~

~~(b) Additional charges will be assessed as follows:~~

~~(A) Fax charges ----- \$0.50 (per page);~~

~~(B) Document Cert. ----- \$2.50 (per certification);~~

~~(C) Invoice processing ----- \$5.00 (per invoice);~~

~~(D) Express Mailing ----- actual or minimum of \$9.00;~~

~~(E) Archival Retrieval ----- actual or minimum of \$10.00.~~

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0360

Collecting Fees

011-12

Attachment A-1

November 15, 1999

(1) Method: ~~-----~~ Payment may be made in the form of cash, check, or money order. Make checks payable to "Department of Environmental Quality."

(2) Time of Payment: ~~-----~~ Requestors shall make actual payment or make arrangements for payment before receiving the reproduced material, subject to the provisions listed in this rule.

(3) Billing: ~~-----~~ Requestors wishing to be billed may make such arrangements at the time of reproduction record request. Purchase ~~o~~ Orders will only be accepted for orders \$10.00 or more.

(3)4) Receipts: ~~-----~~ A receipt may be given, upon request, for charges incurred.

~~(5) Refunds:-----~~ Refund of fees shall be made when pre-payment exceeds actual cost.

(4) Costs for Other Public Records: ~~-----~~ Reasonable costs associated with responding to a request to review or copy a record ~~providing copies of public records not specifically addressed by these this rules~~ may be assessed including the actual costs for the Department to have another person make copies of the records.

(5) Prepayment of Copy Costs: Depending on the volume of the records requested, the difficulty in determining whether any of the records are exempt from disclosure, and the necessity of consulting with legal counsel, the Department may preliminarily estimate the charges for responding to a record request and require prepayment of the estimated charges. If the actual charges are less than the prepayment, any overpayment will be refunded to the requestor.

(7) Reviewing Records: No charges or fees shall be assessed for reviewing public records at Department locations if reproductions of records are not requested.

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0370

~~Certified Copies~~ Certification of Copies of Records

(1) Hardecopy Requests: ~~-----~~ The Department shall, upon request, provide certified copies of hardecopy records.

(2) Electronic Records: ~~-----~~ The Department shall provide certification that a particular electronic record (on diskette or otherwise) as provided by the Department, is a true and correct copy of that record at the time and date of delivery by the Department. Certification of both hard and electronic copies of records will be provided. The Department will only certify that on the date copied, the copy was a true and correct copy of the original record. The Department cannot certify as to any subsequent changes or manipulation of that electronic record. ~~The Department shall, upon request, provide certified hardecopy printouts of electronic records when feasible.~~

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0380

Fee Waivers and Reductions

~~The Department determines that the following waivers/reductions of fees are in the public interest because making the records available at a reduced rate primarily benefits the public. All waivers/reductions shall be granted as provided by this rule unless otherwise prohibited by law:~~

(1) General Fee Waivers for Hardecopy Reproductions/Printouts of Electronic Records: ~~-----~~ Reproduction fees for hardecopy records and printouts of electronic records are subject to the following provisions: Ordinarily there will shall be no charge for one copy of a public recordies:

(a) When the material requested is currently being distributed as part of, ~~or has been prepared for~~ distribution as a part of, the public participation process such as a news release ~~or~~, public notice, ~~or~~ other DEQ publication.

(b) When the material requested has been distributed through mass mailing and is readily available to the Department DEQ staff at the time of request.

(c) When the records request is made by a local, state, or federal public/governmental entity or a representative of a public/governmental entity acting in a public function or capacity. Even if a person qualifies under this subsection, the Department may still charge for either record review or copying based on the following factors:

(A) Any financial hardship on the Department;

(B) The extent of time, expense and interference with the Department's regular business;

(C) The volume of the records requested, or

(D) The necessity to segregate exempt from non-exempt materials.

(2) Public Interest Annual Fee Waivers: /Reductions for Public Record Reproductions—The following fee waivers/reductions for public records reproductions may be granted for hardcopy and electronic records as outlined below:

(a) Annual Waiver:

(aA) Generally—An approved annual fee waiver/reduction allows the requestor to either review or obtain hardcopy or electronic reproduction, at no charge or at a substantially reduced rate, subject to other provisions of this rule, per annum one copy of a requested record at no charge. Fee waivers are effective for a one year period.

(B) Timeframe—“Annum” is defined herein as the Department fiscal year (July 1-June 30). All requestors must re-apply each annum for subsequent annual fee waiver/reductions.

(C) Documents—All fee waiver documents specified in 340-011-0380(2)(a)(E)(ii) must be dated and sent, by the requestor, to the DEQ Administrator, Management Services Division for approval.

(D) Fee Waiver Number—Each individual/group/organization shall be assigned a Fee Waiver Number. This number must be marked on all relevant forms if a fee waiver is requested.

(E) Applicability—The following

(b) A person individuals, groups, and organizations including members of the news media and non-profit organizations may be entitled to the an annual fee waiver/reduction outlined in section (2)(a) above, provided that the requested documents are submitted by the requestor and approved by the Department a Fee Waiver Form is completed and approved by the Department. The form must identify the person's specific ability to disseminate information of the kind maintained by the Department to the general public and that such information is generally in the interest of and benefit to the public within the meaning of the Public Records Law. Additional information may be requested by the Department prior to granting any fee waiver.

(i) Members of the News Media (Defined primarily as a staff reporter who works for a regularly scheduled news program on television, radio, for a periodical or a newspaper); Non-profit Corporations (as defined by the I.R.S. Code §501(c)); Other Individuals/groups/organizations that qualify under the Oregon Public Records Law.

(ii) Each of the above listed individuals or groups must, in writing, identify the specific ability to disseminate information of the kind maintained by the Department to the general public, and that such information is generally in the interest of and benefit to the public within the meaning of the Oregon Public Records Law. Requestors shall be required to 1) fill out a DEQ Fee Waiver/Reduction Request Form, and 2) submit a letter outlining the individual's/group's background (as it relates to this fee waiver/reduction request), mission, use of information requested, and specific ability to disseminate that information to the general public.

(c) Even if a person has a fee waiver, the Department may charge for either record review or copying based on the following factors:

(A) Any financial hardship on the Department;

(B) The extent of time, expense and interference with the Department's regular business;

(C) The volume of the records requested;

(D) The necessity to segregate exempt from non-exempt materials; and

(E) The extent to which the record request does not further the public interest or the particular needs of the requestor.

~~(3b) Case-by-Case Waivers or Reductions: ----- A person/group/organization that does not request, or is not approved for, an annual waiver, reduction under OAR 340-011-0380(2)(a) of this rule, may request a waiver or a reduction of records review or reproduction fees-costs on a case-by-case basis in accordance with the Oregon Public Records Law.~~

~~(e) Restrictions----- The Department may, in its discretion, determine that all or part of the fees for a specific records request are not subject to a waiver/reduction under section 340-011-0380(2)(a) or (b) of this rule pursuant to the Oregon Public Records Law. Requestors shall be responsible for payment of such fees, and may be billed accordingly.~~

~~(d) Additional information may be requested by the Department prior to granting any fee waiver under this Rule.~~

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.440

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

340-011-0390

Additional Provisions/Limitations Exempt Records

~~(1) Exempt Records----- All records held by the Department are public records unless specifically exempt from disclosure under ORS chapter 192 or other applicable law. If the Department determines that all or part of a requested public record should not be inspected or copied is exempt from disclosure, the Department shall will notify the requestor and the reasons why the Department considers the record exempt... of such fact and the reasons therefore.~~

~~(2) In determining whether all or any part of a public record should not be inspected or copied pursuant to a request therefor, the Department shall comply with ORS 192.410 et seq. or other applicable law.~~

Stat. Auth.: ORS 192.410 - ORS 192.505 & ORS 468.020

Stats. Implemented: ORS 192.501 & ORS 192.502

Hist.: DEQ 23-1994, f. & cert. ef. 10-21-94

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
A Statement of Need and Fiscal Impact accompanies this form.

DEQ - Director's Office
Agency and Division

Susan M. Greco
Rules Coordinator

811 S.W. 6th Avenue, Portland, OR 97213
Address

Chapter 340
Administrative Rules Chapter Number

(503) 229-5213
Telephone

<u>May 22, 2000</u>	<u>2:00 pm</u>	<u>811 SW 6th Avenue Portland Rm 10</u>	<u>Susan Greco</u>
Hearing Date	Time	Location	Hearings Officer

Are auxiliary aids for persons with disabilities available upon advance request?
X Yes No

RULEMAKING ACTION

ADOPT:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

340-011-0122, 340-011-0124, 340-011-0131

AMEND:

340-011-0005, 340-011-0010, 340-011-0097, 340-011-0098, 340-011-0103, 340-011-0107, 340-011-0132, 340-011-0136, 340-011-0310, 340-011-0330, 340-011-0340, 340-011-0360, 340-011-0370, 340-011-0380, 340-011-0390; 340-012-0049

REPEAL:

340-011-0102, 340-011-0116, 340-011-0142, 340-011-0350

Stat. Auth.: ORS 183.341, 468.020, 192.410

Stats. Implemented: ORS 183.341, 183.335, 183.430, 192.410-440

RULE SUMMARY

Makes permanent temporary rule changes adopted in February 2000. These changes affect the procedures for contested case hearings conducted by hearing officers from the Central Hearing panel. These changes also adopt the most recent version of the Attorney General's Model Rule. Additionally the rulemaking makes some housekeeping changes to the rules governing public records requests including updating the amount charged to cover staff time and clarifies various procedures that the Department has been following but have not been in the rules.

5/24/00
Last Day for Public Comment

Susan M. Greco 4/10/00
Authorized Signer and Date

Attachment B-1 1 page

DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

for

Rule Revisions Regarding Contested Case Hearings and Public Records

Fiscal and Economic Impact Statement

Introduction

This proposal would replace temporary rules which were adopted in February 2000 which covered procedures for contested case hearings. These rule changes also adopt the most recent version of the AG Model rules. There will be no fiscal impact due to the rules changes for contested case hearings and the adoption of the AG's Model rules. Additionally the rulemaking makes some housekeeping changes to the rules governing public records. It updates the amount charged to cover staff time and clarifies various procedures that the Department has been following but have not been in the rules.

General Public

The general public will see an increase in the cost of reviewing and obtaining copies of the Department's public records. The increase in the hourly cost of staff time reflects the increase in salaries since the rules were adopted in 1994. Those members of the public which previously qualified for a fee waiver of these costs will still be eligible for a fee waiver.

Small Business

A small business will be effected the same way that the general public will be effected; if a small business makes a record request to the Department, it will incur the costs of locating and copying the records.

Large Business

A large business will be effected the same way that the general public will be effected; if a large business makes a record request to the Department, it will incur the costs of locating and copying the records.

Local Governments

There will be no fiscal impact on local governments due to the rule changes. Under OAR 340-011-0380 there is no charge to a local government entity for one copy of the Department's records. The Department may determine that a charge is appropriate due to the burden on the Department to respond to the records request.

State Agencies

There will be no fiscal impact on state agencies due to the rule changes. Under OAR 340-011-0380 there is no charge to a state agency for one copy of the Department's records. The Department may determine that a charge is appropriate due to the burden on the Department to respond to the records request.

Assumptions

Since the fee schedule contained in these rules is based upon the Department's actual costs in making public records available, there will be no fiscal impact on the Department.

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.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

This proposal would replace temporary rules which were adopted in February 2000 which covered procedures for contested case hearings. These rule changes also adopt the most recent version of the AG Model rules. Additionally the rulemaking makes some housekeeping changes to the rules governing public records. It updates the amount charged to cover staff time and clarifies various procedures that the Department has been following but have not been in the rules.

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 No

a. If yes, identify existing program/rule/activity:

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? Yes No (if no, explain):

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

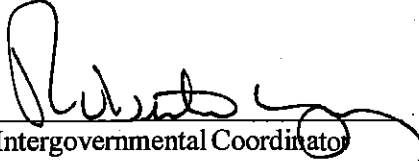
In applying criterion 2 above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

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.**

Division


Intergovernmental Coordinator

4/3/00
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? No
2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling? N/A
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? N/A
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? N/A
5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements? N/A
6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth? N/A
7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field) N/A
8. Would others face increased costs if a more stringent rule is not enacted? N/A
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? N/A
10. Is demonstrated technology available to comply with the proposed requirement? N/A
11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain? N/A

**State of Oregon
Department of Environmental Quality**

Memorandum

Date: 4/14/00
To: Interested and Affected Public
Subject: Rulemaking Proposal and Rulemaking Statements - Rule Revisions Regarding Contested Case Hearings and Public Records

This memorandum contains information on a proposal by the Department of Environmental Quality (Department) to adopt new rules/rule amendments regarding the procedures for contested case hearings conducted by hearing officers from the Central Hearing Panel and procedures for reviewing and obtaining copies of the Department's public records. 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 replace temporary rules which were adopted in February 2000 which covered procedures for contested case hearings. These rule changes also adopt the most recent version of the AG Model Rules. Additionally the rulemaking makes some housekeeping changes to the rules governing public records. It updates the amount charged to cover staff time and clarifies various procedures that the Department has been following but have not been in the rules.

The Department has the statutory authority to address this issue under ORS 183.341, 192.410 and 468.020. These rules implement ORS 183.341, 183.464 and 192.440.

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: Monday, May 22, 2000

Time: 2:00 p.m.

Place: 811 S.W. 6th Avenue, Portland, Oregon Room 10 (10th Floor)

Deadline for submittal of Written Comments: Wednesday, May 24 at 5:00 p.m.

Susan Greco 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: Susan Greco, 811 S.W. 6th Avenue, Portland, Oregon 97204.

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.

Attachment B-5 4 pages

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 are 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 which 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.

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 July 14, 2000. 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.

What's in this Package?

- 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).

Background on Development of the Rulemaking Proposal

Why is there a need for the rule?

The 1999 Legislature enacted House Bill 2525 which created a Central Hearing Officer Panel, housed within the Employment Department to conduct contested case hearings on behalf of all state agencies. Agencies covered by HB 2525 must comply with the Attorney General's Hearing Panel Rules which were effective on January 1, 2000. Agencies cannot adopt procedural rules for contested case hearings unless the rules are required by state or federal law, the rules are specifically authorized by the Hearing Panel Rules, or the agency has been exempted from the Hearing Panel Rules.

In February 2000, the Environmental Quality Commission adopted temporary rules regarding contested case proceedings based on the provisions of HB 2525 and the Hearing Panel Rules. This rulemaking will permanently repeal those rules that are no longer needed by the Department and adopt procedural rules that are authorized under the Hearing Panel Rules. These include rules that limit the availability of certain procedures during the contested case, provide for public attendance at the hearings, and provide procedures for filing exceptions to a hearing officer's order before the Environmental Quality Commission.

The temporary rulemaking also made some minor housekeeping changes and adopted the most recent changes made to the Attorney General's Model Rules for use in rulemaking. Those changes are also proposed to be adopted permanently in this rulemaking.

This rulemaking is also making changes to the Department's public records rules. The majority of these changes are of a housekeeping nature or clarify already existing Department policies. The rules will require each office to establish hours for public review of documents based on staff availability and allows the Department to require prepayment of costs incurred for large requests. The staff hourly costs have been increased to reflect increases in salaries since 1994 and the changes also clarify that the Department can recover staff time when attempting to locate the records. Finally it clarifies that a fee waiver only entitles a person to one copy of a record and that regardless of the fee waiver, the Department may still elect to charge if the request is burdensome or voluminous.

How was the rule developed?

An advisory committee was not used to develop these rules changes since the majority of the changes do not involve policy decisions. The rule changes based on HB 2525 are required by both the statute and the Attorney General's rules which are binding on affected agencies. The changes to the public records rules are mainly housekeeping changes or place into rule policies that the Department has already been following. The increase in the cost of staff hourly time reflects increased costs to the Department based on salary increases. Additionally the Department did not have time to convene an advisory committee due to time constraints in replacing the temporary rules adopted in February.

The Department relied on the following documents in developing this rule proposal:
Attorney General's Public Records and Meetings Manual (1997 and 1999 editions)
Attorney General's Administrative Law Manual (1997 and 1999 editions)
Attorney General's Uniform, Hearing Panel and Model Rules (effective January 1, 2000)
House Bill 2525 (1999)
Memorandum from Langdon Marsh to the Environmental Quality Commission dated January 25, 2000 and Correction dated February 9, 2000

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 Susan Greco for times when the documents are available for review.

Whom does this rule affect including the public, regulated community or other agencies, and how does it affect these groups?

The proposed rules regarding contested case hearings will have little, if any, effect on the public, the regulated community or other agencies unless they are a party to a contested case hearing. If so, these rules set forth the procedures to be followed.

The proposed rules regarding public records may have an effect on the public in that they will see an increase in the cost of reviewing and copying public records due to increased cost of staff time. The increase in the rules reflects the increase in staff salaries since the current rules were adopted in 1994. Other agencies will not be effected by this increase since ordinarily they can review and copy public records without any cost.

How will the rule be implemented?

The majority of the changes proposed by this rule proposal are already being implemented by the Department. For example, each Department office has already established hours for records review based on its staff availability. The invoice forms used by the Department will be updated to reflect any increased costs.

Are there time constraints?

The temporary rules that became effective in February must be replaced with permanent rules prior to July 31, 2000.

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: Susan M. Greco, Deputy Director's Office
Department of Environmental Quality, 811 S.W. 6th Avenue, Portland OR 97204
(503) 229-5213 or (800) 452-4011 TTY: (503) 229-6993

**State of Oregon
Department of Environmental Quality**

Memorandum

Date: 5/30/00

To: Environmental Quality Commission

From: Susan Greco

Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: May 22, 2000, beginning at 2:00
Hearing Location: DEQ Headquarters, Room 10
Title of Proposal: Rule Revisions Regarding Contested Case Hearings and Public
Records

The rulemaking hearing on the above titled proposal was convened at 2:05 p.m.. The hearing was closed at 2:45 p.m. People were asked to sign registration forms if they wished to present comments. People were also advised that the hearing was being recorded.

4 people were in attendance, 3 people signed up to give comments.

Prior to receiving comments, Susan Greco briefly explained the specific rulemaking proposal and the procedures to be followed during the hearing.

The following report provides a summary of written and oral comments received and the Department's response to each comment. Comments are grouped by similar subject areas.

<u>Number</u>	<u>Name</u>
O1	Michael F. Sheehan
O2	Robert J. Caldwell, The Oregonian and Oregon Newspaper Publishers Association
O3	Melissa Powers, Northwest Environmental Defense Center and Northwest Environmental Advocates
W1	Oregon Newspaper Publishers Association
W2	Nina Bell, Northwest Environmental Defense Center and Northwest Environmental Advocates
W3	Michael F. Sheehan

DEPARTMENT OF ENVIRONMENTAL QUALITY

**Rulemaking Proposal
for**

Rule Revisions Regarding Contested Case Hearings and Public Records

Department's Evaluation of Public Comment

Contested Case Hearing Rule Changes

1. OAR 340-011-0122 limits public attendance at a contested case hearing without requiring any type of reasonableness or good faith standard.

Comment by: O3, W2, W3

A contested case hearing before a hearing officer is not considered a public meeting and the public does not have a right to attend the hearing. Contested case hearings are specifically exempted from the definition of a public meeting. See ORS 192.690. For this reason, prior to the adoption of the Hearing Panel Rules, the Department's contested case hearings have been closed to the public. In the Hearing Panel Rules, the Department of Justice decided to make all contested case hearings open to the public unless an agency determines that the hearing or all hearings should be closed to the public. The Department has decided that unless a participant in the hearing wants the hearing to be closed to the public, it will be open to the public.

2. OAR 340-011-0122 removes the public's ability to participate in a contested case hearing.

Comment by: O3, W2

As previously stated, a contested case hearing before a hearing officer is not considered a public meeting and the public does not have a right to attend the hearing. Even if a contested case hearing was a public meeting, the public does not have a right to participate in a public meeting of an agency. As stated in the Public Meetings Manual on page 106, "the Public Meetings Law is a public attendance law, not a public participation law... [R]ight of attendance does not include the right to participate...." Additionally the rules do not limit the public's ability to participate in the hearing as an intervenor as a party or limited party in the contested case.

3. The Clean Water Act requires that the state's procedures must be comparable with the federal procedures to preclude a civil suit. Since OAR 340-011-0122 denies the public the ability to attend a contested case hearing, these enforcement actions will not preclude future citizen suits.

Comment by: W2

There is no express provision in the Clean Water Act that the public must be allowed to attend a contested case hearing involving an enforcement action. If there were such a requirement, then the person who is subject to the enforcement action that wishes to avoid a possible citizen suit, would not request that the contested case hearing be closed to the public.

4. OAR 340-011-0122 would allow a contested case hearing to be closed upon the request of any participant in the hearing including a witness.

Comment by: W3

Participant is defined in OAR 340-011-0005 to be either a party to the contested case proceeding or the Department. Unless the witness was a party to the contested case, they could not request that the hearing be closed to the public.

5. The public has a right to attend quasi-judicial decision-making process of agencies. The rules interfere with that right.

Comment by: W3

See response to comment #1 and #2 above.

6. The rules regarding contested case hearings do not appear to anticipate challenges to a permit by the public.

Comment by: O3, W2

A challenge to the issuance of a permit by a public member would not be handled in a contested case hearing but would instead be filed in circuit court under ORS 183.480(1). The issuance of a permit is considered an order in other than a contested case.

7. OAR 340-011-0097 lacks what needs to be included in the notice of opportunity to request a contested case hearing.

Comment by: O3, W2

The elements that need to be included in contested case notice are provided in ORS 183.415 and OAR 137-003-0505. The Attorney General's Model Rules regarding contested case hearings for cases conducted by the Central Hearing Panel became effective on January 1, 2000 and became binding on the Department at that time. The Department cannot adopt procedural rules for contested case hearings unless the rules are required by state or federal law, the rules are specifically authorized by the Model Rules or the agency has been exempted from the Model Rules.

8. OAR 340-011-0097(5) states that a notice sent by regular mail is presumed to have been received. This should be rebuttably presumed.

Comment by: W2

The language in this section should reflect the language contained in the Hearing Panel Rules which states "Documents sent through the U.S. Postal Service by regular mail are presumed to have been received, subject to evidence to the contrary." The rule language will be changed to reflect the Hearing Panel Rule language.

9. OAR 340-011-0102 should not have been deleted since the law does not preclude non-attorney representation.

Comment by: W2

OAR 137-003-0550 is the rule regarding non-attorney representation. This rule became effective on January 1, 2000 and was binding on the Department at that time. As previously stated, the Department cannot adopt procedural rules for contested case hearings unless the rules are required by state or federal law, the rules are specifically authorized by the Model Rules or the agency has been exempted from the Model Rules.

10. OAR 340-011-0103 precludes Enforcement staff from making legal arguments in a contested case hearing. If the staff is an attorney, they should not be precluded from making these arguments.

Comment by: W2

Staff of any agency besides the Department of Justice is prohibited from making legal arguments on behalf of an agency. See ORS 183.452. The Enforcement staff is still able to represent the Department in contested case hearings involving civil penalties assessed under Division 012.

11. OAR 340-011-0107 should be rewritten to encompass situations besides civil penalty actions. It is not possible to respond in the fashion contemplated by the rule to a notice that merely states a permit has been issued.

Comment by: W2

A notice giving a person an opportunity to request a contested case hearing is required to include the elements provided in ORS 183.415 and OAR 137-003-0505. Thus a notice would not merely state that the permit has been issued if it entitled that person to a contested case hearing.

12. OAR 340-011-0166 should not be deleted. Subpoenas should still be allowed in contested case hearings.

Comment by: W2

OAR 137-003-0585 is the rule regarding subpoenas and the procedures for issuing a subpoena in a contested case hearing. Subpoenas are still allowed. The rule became effective on January 1, 2000 and was binding on the Department at that time. As previously stated, the Department cannot adopt procedural rules for contested case hearings unless the rules are required by state or federal law, the rules are specifically authorized by the Model Rules, or the agency has been exempted from the Model Rules.

13. The rules need to contain what must be included in the notice under OAR 340-011-0097, otherwise a person does not know what the scope of the hearing will be.

Comment by: W2

See response to comment #7 above.

14. OAR 340-011-0132(3)(g) should require mandatory oral argument. Failure to provide oral argument poses potential due process violations and increases the public's negative perception of the decision-making process.

Comment by: W2

ORS 183.460 and the Model Rules (OAR 137-003-0600 and 0650) require that the parties to the contested case hearing be given an opportunity to file exceptions and present argument to the agency after a proposed order has been issued. Neither requires that oral argument be allowed. Traditionally the Commission has allowed oral argument for matters that are before them.

Public Record Rules Changes

1. Feel that the changes are part of an effort to diminish or restrict criticism of the Department's efforts or to restrict access to public records.

Comment by: O1, O2, O3, W3

The Department is committed to ensuring public participation in its processes. It is vital that the Department constantly communicates with the public about its programs. The public must have an understanding of the Department's programs and participate in its development for the Department to be effective. The Department works to keep the public informed through mailings, news releases, public hearings and its web page. Thousands of notices regarding the Department's actions are sent to the public each month. The Department utilizes advisory committees for the majority of its decisions. At any given time at least 20 advisory committees are in existence. Increasingly, the public can access the Department's records through less traditional means such as the web page.

The proposed rules make limited changes to the public records rules. The majority of the changes are housekeeping or semantic changes. Some of the proposed changes require the Department to be more responsive to the public. Except for the changes outlined below, the procedures for viewing and obtaining copies of public records have been in effective since 1994. The first significant change that the Department is proposing will update its hourly staff charges from \$18.00 to \$30.00 and from \$26.00 to \$40.00. This increase reflects the increase in costs since the rules were adopted in 1994. Additionally the Department will now be able to recover its costs for staff time spent 'locating' records along with 'copying' records. The Department will require a staff person to be present when a person is using their own equipment to copy a record. The Department can charge the person for this staff time. Additionally, the Department proposes to recover Department of Justice attorney hourly charges when it is necessary for the Department of Justice to review records to determine if the record is exempt from disclosure. A rule has been added that requires the Department to respond to a record request within a reasonable period of time and if it appears that the time will be greater than 30 days, to inform the requester of that fact. The Department has always been required to respond within a reasonable period of time under the Public Records Law. The other provisions of this rule are new requirements. The rule changes also incorporate into the rule several policies that the Department has been following. Specifically the Department has offered other government entities one free copy of a record. The rule now states that they are only entitled to that one copy. Also government entities and those organizations with a fee waiver have always been informed that the Department may elect to charge them for a record request depending on the magnitude of the record request.

The Department does not believe that its rules including the copy or hourly costs restrict the public's ability to view and copy its records. The majority of the public record requests that the Department receives are from attorneys, companies or consultants. For example since July 1999, of the approximately 450 public record requests that the Department issued an invoice for, 17 of those requests were not from an attorney,

consultant or company. The average cost of those 17 was \$24.00. Of the approximately 350 public record requests that the Department collected money for but did not send an invoice, 120 did not have a company listed. The average cost of those 120 requests was \$12.50. There is no way to determine how many copies or hours the Department spends retrieving records that the Department did not charge for when the number of copies is small or the request did not require significant staff time.

At any given time, there are 15 to 20 organizations that have fee waivers with the Department. These organizations include the media such as The Oregonian, local environmental groups such as Northwest Environmental Defense Center and interest groups such as Columbia River Crab Fisherman's Association. Additionally, other government entities such as cities, counties and schools are not charged for record requests. The Department does not track the number of copies acquired by these groups.

The Department attempts to respond to record requests in a timely fashion. Often this is not possible. For example, the Department recently received a record request which will require it to research all the tax credit files back to the early 1970's. The requester wished to receive the records within one week. Within a two week period of time, the Department was able to provide the requester with approximately 14,000 copies. The remaining records will be provided to the requester over the next few months as staff time is available to work on the request.

The Department believes that its rules balance the state's policy that the public is entitled to know how government is conducting its business with protecting the integrity of its records for future use by both the Department and the public.

2. Rule changes do not comply with the spirit of ORS Chapter 192.

Comment by: O1, O2, O3, W1, W3

See the response to comment #1 above.

3. The Department should attempt to recover more civil penalties from parties harming the environment instead of requiring the public to pay for the Department's fiscal problems.

Comment by: W2

As required by law, any civil penalties that the Department assesses and receives are deposited into the general fund of the State. They are not returned to the Department to use. The Department is not funded by its civil penalty assessments. The fees charged for a record request are used by the Department to cover those costs associated with the request.

4. OAR 340-011-0330(2) will require record requests to be submitted to "staff" where it previously stated "Division, Section, Regional Office or Department unit". This change in language requires a requestor to identify the correct staff person to request records.

Comment by: O1, O2, O3, W3

The rule does not require that a record request be submitted to the particular person but instead states that the record request will be handled by that person. The language change reflects the reality of how records are handled by the Department. The staff person who would be handling a current matter would have the records for that matter. This is not a change from the current Department practice and is not a new requirement.

5. Changes outlined in #3 will lead to delays in getting records if staff is unavailable.

Comment by: O1, O2, O3

The language change does not signify a change in the Department's practices. The staff person handling the particular matter will have the records and will be the best person to handle the record request.

6. OAR 340-011-0330(4) requires that all requests for records must be in writing.

Comment by: W1

There is no requirement in the rules that a request must be in writing. OAR 340-011-0330(4) specifically states that record requests "may be made in writing, by telephone or in person". This is nearly identical language as to previous rule language that was already in the rules - see former OAR 340-011-0330(1)(b). This is not a new requirement.

7. OAR 340-011-0330(4) states that the Department may require that a request be in writing. This will lead to delays in getting records based on arbitrary decisions by the Department.

Comment by: O1, O2, W2

Former OAR 340-011-0330(2)(a) stated that the Department may require clarification of a record request in writing. This new provision was designed to merely restate the previous rule language. In response to public comment, the Department will change the rule language to clarify that the Department may require that a record request be in writing if necessary for clarification or specification of the record request.

8. Agrees that the Department should be able to require a request to be in writing if the request is denied or requires an hourly fee.

Comment by: W1

The Department will change the rule language to reflect that it may require a request to be in writing for clarification or specification of the record request. The Department agrees that in the two situations envisioned in this comment, it would be wise for the person making the request to make the request in writing.

9. OAR 340-011-0330(4)(d) states that in-person requests may be limited. This will lead to delay in getting records.

Comment by: O1

Former OAR 340-011-0330(2)(c) stated that the Department could limit the number of walk-in requests during a particular day. This is not a new requirement. The rule provision is designed to deal with the reality of small staffs in some offices. Some offices have as few as one staff person in that office. In some other offices, there may be only one staff person in the particular program.

10. Office hours need to be uniform and have a minimum number of hours required for each office.

Comment by: O3, W2, W3

This rule contains similar limitations that were previously in the rules - see former OAR 340-011-0330(2)(d). The rule provision is designed to deal with the reality of small staffs in some offices. Some offices have as few as one staff person in that office. In some other offices, there may be only one staff person in the particular program. The language is designed to give offices maximum flexibility in setting hours for the public to review records. This has been the Department's existing policy since 1994 and the public is still served.

11. The rules provide for too limited hours to inspect records.

Comment by: O1, O2, O3, W1

See the response to comment #10 above.

12. The Department's obligation to provide access to review public records should not depend on staff availability. Anything less than allowing the public to review records during all normal business hours is a violation of the Public Records Law.

Comment by: W3

Under ORS 192.430, the Department has the authority to adopt rules that prevent interference with the regular discharge of duties of its staff. The limit on hours for public access to records is designed to deal with small staffs in some offices and allow them to work outside the office as necessary for their duties. This has been in the Department's rules since 1994 and the public has still been able to review its records.

13. OAR 340-011-0330(4)(d) requires that prior to making records available for inspection, the Department must determine if the record is exempt from disclosure. This requirement will lead to delay and will add to the cost of getting records due to staff and attorney time charges.

Comment by: O1

The Department is required to determine if records are exempt from disclosure prior to making those records available for public inspection. See Public Records Manual, page 8. Additionally this is not a new requirements but has been in the rules since they were adopted in 1994.

14. OAR 340-011-0330(5) does not require the Department to ever respond to a record request.

Comment by: O3, W2, W3

The Department is required by the Public Records Law to respond to a public record request within a reasonable period of time after receiving the request.

15. The term "reasonable" as used in OAR 340-011-0330(5) is too vague; a specific time frame for responding to a record request should be set forth in the rules.

Comment by: O1, O2, W2

The Department is required by Public Records Law to respond to a record request within a reasonable period of time. This time frame will vary depending on the nature of each record request and must be determined on a case-by-case basis. Additionally the Department is authorized to adopt rules that prevent interference with the regular discharge of duties of its staff. Requiring response to a record request within a certain period of time regardless of the magnitude of that request, could, conceivably, interfere with staff's discharge of its regular duties.

16. The time frame for responding to a record request fails to recognize the fact that the person requesting the information may need the information within a specific period of time.

Comment by: W2, W3

See response to comment #15 above.

17. The rules should provide for deadline extensions in other proceedings for situations in which the person wishes to use the records in those proceedings.

Comment by: W2

The Department is often under legal requirements in other proceedings such as times to file an appeal or request review of a Department decision. These time frames cannot be extended. The Department attempts to comply with a person's time frame when responding to a record request but may not be able to do so due to the magnitude of the request.

18. The Department has failed to offer evidence that the costs for staff time are based on its actual costs.

Comment by: O1, O2, O3, W1

The costs proposed in the rules are based on a computer model developed by our budget office to compute 'actual' cost to the Department of staff time. Included in the hourly fee are salary, benefits, services, supplies and agency indirect costs. This does not cover additional hourly costs to the Department for typical overhead charges such as holiday/vacation/sick leave and management overhead.

19. The Department should not charge for staff time while supervising someone making a copy of a record with their own equipment.

Comment by: O1, O2, W1

The rule is designed to ensure the continued integrity of the Department's records. When copying a large file, it is easy for parts of that file to be lost or to be returned to the file in an incorrect order. Public Records Law authorizes the Department to take reasonable measures to preserve the integrity of its records. "A public body may adopt administrative measures to supervise original document review." See Public Records Manual, page 11. If staff is required to be present during the copying, then the Department has the authority to recover its actual costs for that time.

20. OAR 340-011-0340(2)(a) does not protect the integrity of the Department's records and should be deleted.

Comment by: O2, W1

See the response to comment #19 above.

21. Staff time charges are too high.

Comment by: O1, O2, O3, W1, W2, W3

The staff time charge in the proposed rules is based on a computer model which computes the actual cost to the Department for its staff's time. The \$30 per hour charge reflects the cost of an Office Specialist 2. The \$40 per hour charge reflects the cost of an Information Systems Specialist.

22. Staff time charges should not include agency overhead costs.

Comment by: W1, W3

ORS 192.440(3) allows an agency to establish fees "reasonably calculated to reimburse it for its actual costs." The hourly fee is based on a computer model which does include some overhead costs but these are "actual costs" to the Department. Therefore, it is reasonable for the Department to recover those costs.

23. The hourly fee imposes an excessive burden on individuals in lower income brackets and has environmental justice implications.

Comment by: W2

The Department has the authority under its rules to provide either an annual fee waiver or a one-time fee waiver to any organization or individual. A low income individual who has requested records but is unable to pay for the associated fees, could apply for a fee waiver.

24. Staff time charges should be less for electronic records since anyone can perform online searches and send electronic copies.

Comment by: W2

The higher hourly fee for electronic records reflects the costs to the Department of an Information Systems Specialist. This would be the person that would have the skills to manipulate electronic systems of the Department.

25. A \$20 hourly charge should be sufficient to cover the Department's costs for staff time.

Comment by: W1

See response to comment #21 above.

26. The public should not be required to pay for Department of Justice attorney time, particularly since it is within the Department's discretion to request Department of Justice time.

Comment by: O1, O2, O3, W1, W3

The rule provision is designed to reimburse the Department for its actual costs in responding to a record request. The Department will only be able to recover costs for attorney time spent reviewing records to see if they are exempt. It will not be able to recover costs associated with legal advice on public record requests in other instances.

The Department of Justice charges the Department approximately \$93 per hour for its staff time. Reimbursement of attorney time is allowed as an agency actual cost in responding to a record request. See Public Records Manual, page 12.

27. Department of Justice hourly time charge is too high.

Comment by: O1, O2, O3, W2, W3

Rate is determined in the Legislatively adopted budget. Additionally, see response to comment #26 above.

28. OAR 340-011-0340(2)(d) states that the per page copy charge includes 15 minutes of staff time. 15 minutes is too short of time to accommodate record requests without charging an hourly fee.

Comment by: O3, W2, W3

Fifteen minutes is designed to encompass the time it takes staff to conduct a routine file search and copy any requested records. Prior to the proposed rule changes, the Department charged an hourly fee once the staff had spent more than 15 minutes of time on a record request. The Note regarding former OAR 340-011-0340(5)(d) states that an hourly charge of \$18.00 will be charged with a minimum of \$4.50. The \$4.50 is for 15 minutes of time. The Department has construed this note to mean that after 15 minutes, staff time charges will accrue. Charging for staff time over 15 minutes is not a new requirement.

29. The public should not be charged for 15 minutes of staff time regardless of how much time it takes. An overcharge would occur if the record request takes less time.

Comment by: O3

The public is not charged for 15 minutes of staff time regardless of the amount of time a record request takes. If the request only takes 10 minutes and involves no copying, there would be no charge to the person. If the request takes 10 minutes of time and copies are made, the cost would be for the copies only.

30. Staff time fees should only be assessed when the request takes more than the usual time to fulfill the record request.

Comment by: W1

The Department has determined that a routine file search and copying of those records will take approximately 15 minutes of staff time. A person requesting records will not be charged for the first 15 minutes of staff time. Once the time exceeds 15 minutes, the charges will accrue. Additionally, see the response to comment #28 above.

31. By charging an hourly fee, the public is being required to pay for the Department's inability to readily locate its records.

Comment by: O1, O3, W2, W3

The Department is a decentralized organization in order to provide services more locally. We have a multitude of records in various offices across the state and also in storage. The records date back to the early 1970's and most likely number in the thousands, if not millions. Some records are not located where they will be immediately available.

32. The public should not be charged an hourly fee just to look at a record.

Comment by: O1

Unless the record request requires more than 15 minutes of staff time to locate the record, the public will not be charged any fee for merely reviewing a record.

33. The public should not be charged a fee if the Department was unable to locate the record they requested.

Comment by: O1, O2, O3

The Public Records Manual on page 12 states that the Department may charge for search time even if the Department fails to locate a record that the person requested.

34. All requests will result in staff time charges to the public.

Comment by: W3

Unless the record request requires more than 15 minutes of staff time, the public will not be charged any fee. Additionally, see the response to comment #28 and #29 above.

35. OAR 340-011-0330(4)(b) is unclear whether the records or the space is 'unavailable'.

Comment by: O2

The Department agrees and will revise the language to clarify that if there is space available in the particular office, then that space will be dedicated for reviewing records.

36. OAR 340-011-0380(2)(b) does not require the Department to determine whether the request is within the public's interest according to the Public Records Law. Instead the Department will be able to make its own determination of 'public interest' even if that differs from the Public Records Law definition.

Comment by: W2

The Department is required to comply with the Public Records Law. ORS 192.440(4) allows an agency to waive or reduce fees if the reduction is in "the public interest because making the record available primarily benefits the general public." This is the definition of 'public interest' that the Department must follow. Based on this comment, the Department will add into the rule that its definition is based on the Public Records Law.

37. OAR 340-011-0380(2)(c) allows the Department to charge for a record request even if an organization has a fee waiver. This provision removes the entire point of offering a fee waiver.

Comment by: O3, W2

The Department, in its letter setting forth the fee waiver, has always indicated that it could charge for future record requests regardless of the fact that the organization has a fee waiver. This rule language now places that policy into rule. The provision is designed to reimburse the Department for its costs for large record request which would require considerable staff time and resources. The criteria are based on those in the Public Records Law and the Public Records Manual, page 16. These criteria include the magnitude of the request, the financial hardship on the Department to comply with the request, the time and interference with the Department's regular business and the necessity to segregate exempt from non-exempt records.

38. Agrees that media and non-profit groups should pay for large requests even if they have a fee waiver.

Comment by: W1

This rule provision is designed to help the Department recover its costs if the request is particularly large and will require a significant amount of staff time. The Department has been faced with this situation several times in the past and has not charged the organization having the fee waiver.

39. Allowing an individual employee to determine whether a request "furthers the particular needs of the requestor" under OAR 340-011-0380(2)(c) will lead to uncoordinated and potentially inconsistent determinations.

Comment by: W2

"All requests for a fee waiver or reduction must be evaluated on a case-by-case basis." Public Records Manual, page 16. Despite the fact that the decision to waive or reduce fees is discretionary, the Department must still act reasonably. Fee waiver decisions are made by staff in the Director's office and thus are consistent with the Department's policies, other similar decisions and ultimately, the Public Records Law.

40. The proposed revisions to OAR 340-011-0390 removes the requirement that the Department must explain why it considers a record exempt from disclosure.

Comment by: O3, W2

This portion of the rule should not have been deleted and will be corrected.

DEPARTMENT OF ENVIRONMENTAL QUALITY

**Rulemaking Proposal
for**

Rule Revisions Regarding Contested Case Hearings and Public Records

Department's Changes to Rules Based on Public Comment

Contested Case Hearing Rule Changes

OAR 304-011-0097(5)

Proposed rule language

Regardless of other provisions in this rule, documents sent through the U.S. Postal Service by regular mail are presumed to have been received if mailed to a person's last known address.

Based on comment #8 rule language has been changed to:

Regardless of other provisions in this rule, documents sent by the Department through the U.S. Postal Service by regular mail to a person's last known address, are presumed to have been received, subject to evidence to the contrary.

Public Record Rule Changes

OAR 340-011-0330(4)

Proposed rule language

The Department may require a request to be made in writing.

Based on comment #7 rule language has been changed to:

The Department may require a request to be made in writing if needed for clarification or specification of the record request.

OAR 340-011-0330(4)(b)

Proposed rule language:

Pursuant to ORS 192.430(1) and this rule, each Department office shall designate and provide a supervised space for viewing records if available.

Based on comment #35 rule language has been changed to:

Pursuant to ORS 192.430(1) and this rule, each Department office shall designate and provide a supervised space, if available, for viewing records.

OAR 340-011-0380(2)(b)

Proposed rule language:

The form must identify the person's specific ability to disseminate information of the kind maintained by the Department to the general public and that such information is generally in the interest of and benefit to the public.

Based on comment #36 rule language has been changed to:
The form must identify the person's specific ability to disseminate information of the kind maintained by the Department to the general public and that such information is generally in the interest of and benefit to the public within the meaning of the Public Records Law.

OAR 340-011-0390

Proposed rule language:

All records held by the Department are public records unless exempt from disclosure under ORS chapter 192 or other applicable law. If the Department determines that all or part of a requested public record is exempt from disclosure, the Department will notify the requestor.

Based on comment #40 rule language has been changed to:
All records held by the Department are public records unless exempt from disclosure under ORS chapter 192 or other applicable law. If the Department determines that all or part of a requested public record is exempt from disclosure, the Department will notify the requestor and the reasons why the Department considers the record exempt.

Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item B
July 14, 2000 Meeting

Title:

Amending Oregon Hazardous Waste Rules

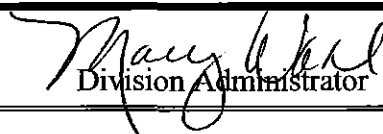
Summary:

Amend Oregon Administrative Rules to permanently adopt most federal hazardous waste rules published between October 9, 1998 and April 12, 2000, and amend state-only hazardous waste rules pertaining to hazardous blister and nerve agents and demilitarization residue. The purpose of adopting the proposed changes to current federal hazardous waste and to state-only rules is: (1) to largely maintain consistency and equivalency with the federal hazardous waste program, in order to implement that program in lieu of EPA, and (2) to clarify and amend rules for hazardous nerve and blister agent hazardous designation.

Department Recommendation:

Adopt the rule amendments as presented in Attachment A of the Department Staff Report.


Report Author


Division Administrator

Director 

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 27, 2000
To: Environmental Quality Commission
From: Langdon Marsh, Director
Subject: Agenda Item B, July 14, 2000 EQC Meeting
Amending Oregon Hazardous Waste Rules

Statement of Purpose

The Department routinely adopts federal hazardous waste regulations by reference to maintain equivalency with the federal hazardous waste program, and in order to implement the program in lieu of EPA. These proposed rule changes:

- clarify or technically change the existing universal waste rules; the organic air emission standards, and the land disposal restrictions;
- newly regulate hazardous waste combustors;
- facilitate hazardous waste cleanups;
- exempt certain landfill leachate and gas condensate from the definition of hazardous waste;
- establish new procedures for testing oil and grease in water; and
- allow metal bearing sludge to be accumulated for recycling.

In addition, the Hazardous Waste Program is proposing one modification to the state-only rules to:

- clarify that blister and nerve agents are listed hazardous wastes, and to define demilitarization residue.

The Department proposed to change the current toxic use reduction reporting deadline to create more efficient and streamlined reporting by combining it with other hazardous waste reporting. However, because of comments, and the fact that a more effective solution to the problem may be found with more time and attention to the issue, the Department has decided to withdraw its proposal. (See Attachment D, Summary, Evaluation and Response to Public Comments Received, Page 6).

Background

On April 12, 2000, the Acting Director authorized the Waste Prevention and Management

Division to proceed to a rulemaking hearing on proposed rules which would amend Oregon Administrative Rules to permanently adopt amendments to existing state regulation of blister and nerve agents, and to adopt a number of federal hazardous waste regulations with amendments promulgated through April 12, 2000.

The hearing notice was published in the Secretary of State's Bulletin on May 1, 2000. Informational materials (sent April 13, 2000) and a Notice of Proposed Rulemaking (sent April 14, 2000) were mailed to the mailing list of 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. Approximately 900 persons received the memorandum.

A Public Hearing was held on May 15, 2000, with Gary Calaba as Presiding Officer. Written comments were received through 5:00 p.m. deadline on May 15, 2000. 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 and responded to the comments received (see Attachment D). Based upon the evaluation of the comments, one modification to the initial rulemaking proposal is being recommended by the Department. This modification is summarized below and detailed in Attachment E.

Issue this Proposed Rulemaking Action is Intended to Address

The Department continues to propose to adopt without changes most federal hazardous waste regulations (see Attachment B.5, Pages 5-11) that have been promulgated by the U.S. EPA from October 9, 1998 through April 12, 2000. Most rules are corrections, or technical amendments to those that are already in effect in Oregon through federal implementation and oversight. Other rules proposed for adoption regulate Universal Waste mercury lamps and will align the Department's existing Universal Waste mercury-containing fluorescent lamp management program with the federal program. New hazardous waste air quality rules, affecting the Umatilla Chemical Agent Disposal Facility, will be implemented in coordination with the Air Quality Division, since a substantial portion of those rules fall under their jurisdiction.

There are two rules proposed for adoption that may be considered less stringent than current regulations (see Attachment B.5, Pages 12-13). One provides for an additional 90 days of storage for metal bearing sludge that large quantity hazardous waste generators produce, provided (1) the metal in the sludge will be legitimately recycled; and (2) the generator implements a Pollution Prevention (P2) program for any hazardous waste. This is the first time the U.S. EPA has added a P2 component to a rule as a condition for relief from regulation. The second less stringent rule allows hazardous cleanup wastes to be

temporarily stored on the ground in order to facilitate cleanup. Generally, piling hazardous cleanup wastes on the ground for any purpose triggers the Land Disposal Restriction Standards, but under the new "staging pile" concept, those standards are not required to be met. This relief from having to meet standards will facilitate cleanups.

Adoption of all of these rules will ensure that the Department remains the primary implementing agency in the State.

The Department is not proposing to adopt three optional EPA rules. The Department is not requesting any EQC action on these rules. They were included in the original staff report in order to provide the regulated public with an understanding of how the Oregon hazardous waste program aligns with the federal program. The Department will respond to the comments made on these rules, but is doing so only to clarify its position regarding these issues.

The Department did not receive any comments on the first rule the Department proposed not to adopt. This federal rule modifies the requirements for post-closure permits, allowing instead alternative state cleanup authorities, or enforceable documents, to be used to impose the federal hazardous waste closure and post-closure requirements at non-permitted land disposal facilities. The rule would explicitly allow the Department's cleanup authorities to be used to impose the standards. The hazardous waste program believes it currently has the flexibility to use state cleanup authorities to implement RCRA corrective action, and is reluctant to proceed along the administratively intensive path of "authorizing" the Environmental Cleanup Program that adoption of this rule would require.

The second federal rule the Department is not proposing to adopt received several comments. This federal rule eliminates RCRA regulation of "dredged material." "Dredged material" means material that is excavated or dredged from waters of the United States. 40 Code of Federal Regulations §232.2. This less stringent federal rule would allow listed hazardous waste "dredged material" from known sources to be cleaned up and disposed under permits issued by the Clean Water Act (CWA) and Marine Protection, Research and Sanctuaries Act (MPRSA), and not under the Resource Conservation and Recovery Act (RCRA). Disposal of "dredged material" most often occurs at a site located in waters of the United States, including the disposal of runoff or overflow from a contained land or water disposal site. The Department believes that eliminating hazardous waste regulation over hazardous waste toxic "dredged material" removes an authority the Department should retain. This is particularly important as the Department is in the process of developing a more holistic program approach to sediment screening and management. It is important to retain this RCRA tool, pending the development of this approach.

Three commenters opposed the Department's position, insisting that "dredged materials," according to EPA, could be managed safely under the CWA or MPRSA. Two commenters argued that the Department should maintain flexibility and authority, and that maintaining the ability under RCRA to regulate "dredged materials" as hazardous waste is warranted. The Department continues to believe that regulating hazardous "dredged materials," including hazardous remediation dredged materials, from known sources, may be necessary under certain conditions to protect human health and the environment.

The Department did not receive any comments on the third federal rule it is not proposing to adopt. This federal rule allows the use of Remedial Action Plans (RAPs), a special form of a RCRA hazardous waste permit, for treating, storing or disposing of hazardous remediation (cleanup) wastes. RAPs are legally enforceable "permit-like" documents authorizing these cleanup activities. RAPs would not affect any cleanup obligation that the responsible party has under RCRA, and the substantive cleanup portions of RCRA that apply still need to be met. However, the Department believes that the Environmental Cleanup Program already has sufficient legal authorities to impose and authorize treatment, storage and disposal of hazardous remediation wastes, and therefore the Department continues to propose not to adopt the RAP rule.

In addition to the federal rules proposed for adoption, the Department continues to propose to define "demilitarization residue" and to clarify the applicability of hazardous waste codes to chemical nerve and blister agents that will be destroyed at the Umatilla Chemical Agent Disposal Facility. No comments were received on this proposal to clearly define chemical nerve and blister agents, and "demilitarization residue," so that proper management of these wastes may occur.

Lastly, the evaluation of comments the Department received on the proposal to streamline Toxics Use Reduction reporting has led to withdrawal of the proposal. The proposal would have changed the current reporting deadline from September 1 of each year to March 1, which is the same deadline for companies to submit their hazardous waste reports to the Department. Due to unforeseen impacts from, in large part, the federal Toxics Release Inventory (TRI) reporting time frame, the Department has withdrawn the proposal.

Relationship to Federal and Adjacent State Rules

This rulemaking proposes to adopt most federal hazardous waste regulations through April 12, 2000 making the Department's program equivalent to the federal program for those rules. Our program is similar to Washington State's, except Washington State adopted parts of HWIR, some of which we are not proposing to adopt, and Washington State adopted the post-closure rule and dredged material exclusion, which we are not proposing to adopt at this time.

Authority to Address the Issue

The Department has statutory authority to propose EQC adoption of rules under ORS 466.020, ORS 183.310 to ORS 183.550, ORS 466.005 to ORS 466.385 and ORS 466.890; and implementing authority under ORS 183.325, ORS 183.335, ORS 183.337, ORS 192, ORS 459, ORS 466.003, ORS 465.009, ORS 466.015, ORS 466.025, ORS 466.075, ORS 466.090, ORS 466.100, ORS 466.105, ORS 466.195, and ORS 468, and ORS 646.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The Department routinely adopts federal hazardous waste regulations by reference to maintain equivalency with the federal hazardous waste program, and in order to implement the program in lieu of EPA. An advisory committee was not formed for this routine rulemaking, because the rules are already in effect substantially in Oregon.

Summary of Rulemaking Proposal for Public Hearing and Discussion of Significant Issues Involved

At the May 15, 2000 Public Hearing, the Department presented its original proposal to recommend EQC adoption of the rules set forth in Attachment B.5 of this report. The Department's projected Oregon impact of each rule is discussed.

Most federal hazardous waste rules published through April 12, 2000 were included in the proposal, including those that: (1) establish or revise hazardous air or land disposal constituents when they are disposed, including correcting an erroneous reference to "mg/l TCLP" for the non-wastewater arsenic LDR standard for potliner from aluminum smelting; (2) align the state-only Universal Waste mercury lamp management program with the new, federal analog; (3) increase from 90 days to 180, days the storage time for large quantity hazardous waste generators when they recycle their metal-bearing sludge, and pursue Pollution Prevention for any on-site generated hazardous wastes.

The Department also proposed to clarify that certain hazardous waste codes apply to blister and nerve agents and to "demilitarization residue" generated by the Umatilla Chemical Agent Disposal Facility. The codes dictate certain waste management practices and disposal pathways. This rulemaking will clarify that these hazardous wastes are to be classified as listed hazardous wastes by both federal and state hazardous waste determination procedures.

The Department's final rulemaking proposal dealt with aligning the toxic use reduction reporting schedule with the hazardous waste reporting schedule, but because of comments received, the Department has withdrawn its proposal. Currently, an important component

of Oregon's Toxics Use Reduction (TUR) law is one that requires large toxics users and large quantity hazardous waste generators to complete annual progress reports each year, on or before September 1. Among other things, the reports describe efforts taken by the toxics user to reduce or eliminate the use of certain toxic substances. The report is maintained on-site, but a summary of some of the report information is submitted to the Department no later than September 1, each calendar year after a plan is completed. During the 1997 Legislative Session, several modifications were made to the statutorily required annual reports. These changes significantly reduced the reporting universe of facilities and reduced the quantity and type of information required to be submitted to the Department. The Department proposed that, given that the reporting has been greatly streamlined and given the Governor's Task Force on Hazardous Substance Reporting recommendation to simplify and make more efficient the reporting required by the regulated community, we would remove the September 1 deadline, and combine the TUR reporting with the annual hazardous waste generator reporting already required in the Spring of each year.

Summary of Significant Public Comment and Changes Proposed in Response

The Department is proposing one change in response to comments. The Department is withdrawing its proposal for annual TUR reports to be submitted on or before March 1, or within 65 days of mailing by the Department, whichever is later. Withdrawing this proposed requirement has the effect of continuing with the current reporting schedule, which is on or before September 1 of each year.

The Department thought that requiring the report to be submitted along with the hazardous waste report in March of each year would make reporting easier for the regulated community, because the TUR report typically is developed from the information on the hazardous waste report. A commenter pointed out that some companies believed that the proposed change would have been beneficial, some believed that it would not, and that the original idea of having a September 1 deadline was that companies could do a more comprehensive evaluation of their TUR efforts after completing the March hazardous waste report and the federal Toxics Release Inventory report which is due in July. In addition, because of an error in constructing the proposed rule, the Department gave the impression that a new deadline of March 1 would apply to the submittal of the Annual Progress Report to the Department, too, not to just the abbreviated reporting currently required to be submitted to the Department. Finally, the commenter suggested that not enough discussion had occurred on changing the current submittal deadline for the abbreviated annual report. The Department agrees, which is why the proposed rule is being withdrawn.

Summary of How the Proposed Rules Will Work and How they will be Implemented

The Department intends to conduct field staff training for specific rules, such as the changes to the Department's existing Universal Waste rule, and the metal-bearing sludge recycling

rule. In addition, certain generators will be notified of their new regulatory obligations. (See Attachment E, Rule Implementation Plan, for more detail.)

Recommendation for Commission Action

It is recommended that the Commission adopt the rule amendments as presented in Attachment A of this Department Staff Report.

Attachments

- A. Rule Amendments Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Notice of Proposed Rulemaking 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 April 14, 2000 Public Notice
- C. Presiding Officer's Report for Rulemaking Hearing
- D. Summary, Evaluation and Response to Public Comments Received
- E. Rule Implementation Plan

Reference Documents (available upon request)

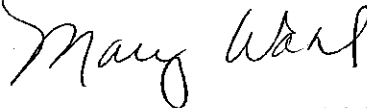
Written Comments Received (listed in Attachment C)
Federal and State Hazardous Waste Regulations

Approved:

Section:



Division:



Report Prepared by: Gary Calaba

Phone: (503) 229-6534

Date Prepared: June 27, 2000

ATTACHMENT A

Rule Amendments Proposed for Adoption

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF
THE STATE OF OREGON**

In the Matter of Rulemaking)
OAR Chapter 340)

Divisions 100, 101, 102, 105, 106, 113)

1. Rule 340-100-0002 is proposed to be amended as follows:

Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations

340-100-0002 (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 ~~October 9~~ April 12, 1998~~2000~~, except the amendments to 40 CFR Parts 264, 265 and 270 as promulgated at 63 Federal Register 56710-56735, October 22, 1998, 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 ~~October 9~~ April 12, 1998~~2000~~, 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

¹Note: 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.

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.]

2. Rule 340-100-0010 is proposed to be amended as follows:

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) "Demilitarization" means all processes and activities at the Umatilla Chemical Depot (OR 6213820917) and Umatilla Chemical Agent Disposal Facility (ORQ 000009431) from February 12, 1997 through Department approval of the closure of all permitted treatment, storage and disposal units and facility-wide corrective action;

(g) "Demilitarization Residue" means any solid waste generated by demilitarization processes and activities as defined in 340-100-0010(2)(f), except for (A) waste streams generated from processes or activities prior to the introduction of nerve or blister agent into the treatment unit; and (B) waste streams generated from maintenance or operation of non-agent contaminated process utility systems;

(hf) "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;

(ig) "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.**

(jh) "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;

(ki) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality;

(lj) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department;

(mk) "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.

(nl) "Extraction of Ores and Minerals" means the process of mining and removing ores and minerals from the earth;

(om) "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;

(pn) "Hazardous Substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101;

(qe) "Hazardous Waste" means a hazardous waste as defined in **40 CFR 261.3;**

(rp) "Identification Number" means the number assigned by DEQ to each generator, transporter, and treatment, storage and disposal facility;

(sq) "License". See "Permit";

(tr) "Management Facility" means a hazardous waste treatment, storage or disposal facility;

(us) "Off-site" means any site which is not on-site;

(vt) "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**);

(~~wu~~) "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.

(~~xv~~) "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;

(~~yw~~) "RCRA" or "Resource Conservation and Recovery Act", when used to refer to a federal law, means Oregon law;

(~~zx~~) "RCRA Permit" means Oregon hazardous waste management facility permit;

(~~aa~~) "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**.

(~~bbz~~) "Residue" means solid waste as defined in **40 CFR 261.2**;

(~~caa~~) "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;

(~~ddb~~) "Spill" means unauthorized disposal;

(~~eee~~) "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;

(~~ffd~~) "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.

(1) "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 agency.]

Stat. Auth.: ORS 183.325 to ORS 183.337, ORS 465.009, ORS 466.020, & ORS 468.020
Stat. Implemented: ORS 465.003, ORS 465.009, ORS 466.005, ORS 466.075 & ORS 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

3. Rule 340-101-0004 is proposed to be amended as follows:

Exclusions

340-101-0004

- (1) The provisions of 40 CFR 261.4(b)(7) are adopted except that 40 CFR 261.4(b)(7)(ii) is deleted.
- (2) Residue described in 40 CFR 261.4(b)(9) is exempted from Divisions 100-106 and 109.
- (3) The provisions of 40 CFR 261.4(g) are deleted.

4. Rule 340-101-0033 is proposed to be amended as follows:

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 B(Sarin) and VX).~~

Note: 340-101-0033(7) and 340-101-0033(8) have been moved to 340-102-0011(c).

(79) 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 agency.]

Stat. Auth.: ORS 183.325 to ORS 183.337, ORS 465.009, ORS 466.020, ORS 466.025, ORS 466.075 & ORS 468.020

Stats. Implemented: ORS 465.009, ORS 466.020 & ORS 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
Stat. Auth.: ORS Ch. 192, 466.015, 466.020, 466.075, 466.090, 468.020 & Ch. 646
Stats. Implemented: ORS 466.020

5. Rule 340-102-0011 is proposed to be amended as follows:

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, or is;~~
 - (c) Persons must then determine if the waste is listed under the following listings:
 - (A) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in 340-102-0011(2)(c)(A)(i) and (ii) are added to and made a part of the list in 40 CFR 261.33(e).
 - (i) P998 . . . Blister agents (such as Mustard agent)
 - (ii) P999 . . . Nerve agents (such as GB (Sarin) and VX); or
 - (B) Hazardous waste identified in 340-102-0011(2)(c)(B)(i) and (ii) are added to and made a part of the list in 40 CFR 261.31.
 - (i) F998. . . Residues from demilitarization, treatment, and testing of blister agents (such as Mustard agent).
 - (ii) F999. . . Residues from demilitarization, treatment, and testing of nerve agents (such as GB (Sarin) and VX).

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.

- (d) Regardless of whether a hazardous waste is listed through application of subsections 2(b) or 2(c) of this rule, 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.

(ed) 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.

(fe) If the waste is not identified as hazardous by application of subsection (2)(b) or (2)(c), and/or (2)(d)(e) 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 agency.]

Stat. Auth.: ORS 192, ORS 465.009, ORS 466.015, ORS 466.020, ORS 466.075, ORS 466.090, ORS 468.020 & ORS 646

Stats. Implemented: ORS 466.015, ORS 466.020 & ORS 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

6. Rule 340-105-0003 is proposed to be amended as follows:

340-105-0003

Considerations Under Federal Law

The provisions of **40 CFR 270.3**, and the Remedial Action Plan provisions under **40 CFR 270.2, 270.11(d), 270.42, 270.68, 270.73(a), 270.79-270.230, except 270.230(e)(1)** are deleted.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459 & ORS 468

Stats. Implemented: ORS 466.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

7. Rule 340-106-0001 is proposed to be corrected as follows:

340-106-0001

Purpose and Scope

(1) The purpose of this Division is to establish the procedures for issuing, modifying, revoking and reissuing, or terminating all hazardous waste permits other than hazardous waste emergency permits and hazardous waste permits by rule.

NOTE: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.

(2) Persons must also consult **40 CFR Parts 260-266, 268, 270 and 124**, which are incorporated by reference in OAR 340-100-0002, to determine all applicable hazardous waste management requirements.

NOTE: **40 CFR Part 124** includes requirements applicable to several programs, including UIC, NPDES, 404, etc. Only the provisions of **40 CFR Part 124 Subparts A and B** which are applicable to hazardous waste or "RCRA" permits are incorporated by reference in OAR 340-100-0002, as modified by Division 106.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459, ORS 466.020, ORS 466.075, ORS 466.105, ORS 466.195 & ORS 468

Stats. Implemented: ORS 466.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

8. Rule 340-113-0000 is proposed to be amended as follows:

340-113-0000

Purpose and Scope

(1) The purpose of the Division is to establish universal waste management standards for handlers, transporters and destination facilities of universal wastes.

(2) Persons must consult **40 CFR Part 273**, which is incorporated by reference in OAR 340-100-0002, and associated Federal Register preambles, in addition to Division 113 of these rules to determine all applicable universal waste management requirements.

~~(3) Two years from the effective date of this rule, the Department will review state established universal waste handler management standards for the purpose of determining if management standards are adequate for the protection of human health and the environment. At that time, a proposal may be presented to the Environmental Quality Commission with a recommendation to change accumulation limits, recordkeeping requirements, impose financial assurance requirements or other regulatory changes depending on the outcome of the study.~~

Stat. Auth.: ORS 183.325 - ORS 183.335, ORS 465.009, ORS 466.020 & ORS 468.020
Stats. Implemented: ORS 466.015, ORS 466.020 & ORS 466.075
Hist.: DEQ 12-1996, f. & cert. ef. 7-31-96

9. Rule 340-113-0010 is proposed to be amended as follows:

340-113-0010

Applicability

(1) In addition to provisions under 40 CFR 273.1, the following wastes are subject to universal waste management standards:

(a) Waste pesticides as defined in OAR 340-109-0010(2)(a), and pesticide residues as defined in OAR 340-100-0010, that are collected and managed as part of any pesticide collection program that has notified the Department.

~~(b) Mercury-containing lamps as defined in OAR 340-113-0020(3).~~

~~(2) The requirements of this Division and 40 CFR, Part 273 do not apply to persons managing:~~

~~(a) Mercury-containing lamps that are not yet wastes under 40 CFR, Part 261;~~

~~(b) Mercury-containing lamps that are not hazardous waste (i.e., the lamps do not exhibit the characteristics identified in 40 CFR part 261, subpart C); or~~

~~(c) Mercury-containing lamps that are hazardous waste and managed in compliance with applicable hazardous waste regulations in 40 CFR Parts 260-266 and 268.~~

~~(3) A mercury-containing lamp becomes a waste on the date it is discarded.~~

~~(4)(a) Mercury-containing lamps are added to the universal waste provisions of 40 CFR 264.1(g) (11), 265.1(e)(14), 268.1(f) and 270.1(e)(2) (viii) that have been incorporated by reference under OAR 340-100-0002.~~

Stat. Auth.: ORS 183.325 - ORS 183.335, ORS 465.009, ORS 466.020 & ORS 468.020
Stats. Implemented: ORS 466.015 & ORS 466.075
Hist.: DEQ 12-1996, f. & cert. ef. 7-31-96

10. Rule 340-113-0020 is proposed to be amended as follows:

340-113-0020

Definitions

The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in 40 CFR 273.6, 40 CFR 260.10, and OAR 340-100-0010. When used in Divisions 109 and 113 of this chapter, the following terms have the meanings below:

(1) "Destination Facility" means a facility that treats, disposes of, or recycles universal waste. Facilities treating universal waste as allowed under 40 CFR 273.13, 273.33 or OAR 340-113-0030(5) are not considered to be destination facilities for purposes of this rule. A facility at which universal waste is only accumulated, is not a destination facility for purposes of managing

universal waste.

~~(2) "Electric Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infra red (IR) regions of the electromagnetic spectrum. Examples of common electric lamps include, but not limited to incandescent, fluorescent, high intensity discharge, and neon lamps.~~

~~(3) "Mercury Containing Lamp" means an electric lamp in which mercury is purposely introduced by the manufacturer for the operation of the lamp.~~

~~(4) "Off-site Collection Site" means a site that receives and accumulates universal waste from off-site.~~

~~(5) "Pesticide Collection Program" means a pesticide collection program that has notified the Department of activity as required in OAR 340-113-0070 and has received acknowledgment from the Department of Environmental Quality that such notification information is complete.~~

~~(6) "Universal Waste" means any waste that is a universal waste listed in 40 CFR 273.1 and OAR 340-113-0010 and subject to the universal waste requirements of 40 CFR Part 273 and OAR 340 Division 113.~~

Stat. Auth.: ORS 183.325 - ORS 183.335, ORS 466.020 & ORS 468.020

Stats. Implemented: ORS 466.075

Hist.: DEQ 12-1996, f. & cert. ef. 7-31-96

11. Rule 340-113-0030 is proposed to be amended as follows:

340-113-0030

Standards for Small and Large Quantity Handlers of Universal Waste

(1) The standards in this rule apply to small quantity handlers of universal waste as defined in 40

(2) **CFR 273.6.** The standards in this rule modify or are in addition to provisions in **40 CFR Part 273 Subpart B.**

(2) The standards in this rule apply to large quantity handlers of universal waste as defined in **40 CFR 273.6.** The standards in this rule modify or are in addition to provisions in **40 CFR Part 273, Subpart C.**

(3) Treatment Prohibition. In addition to the provisions in **40 CFR 273.11 and 40 CFR 273.31,** handlers of universal waste shall not treat universal waste, except as allowed the applicable portions of in **40 CFR 273.13, 40 CFR 273.33,** and ~~OAR 340-113-0030(5) (mercury containing lamps).~~

~~(4) Universal Waste Management for Mercury Containing Lamps. Handlers of universal waste must manage universal waste mercury containing lamps in a way that prevents releases of any universal waste or components of a universal waste to the environment by:~~

~~(a) Minimizing lamp breakage;~~

~~(b) Containing any lamps that show evidence of leakage, spillage or damage that could cause leakage. A container for lamps must be closed, structurally sound, compatible with the contents of the lamp, and must lack evidence of leakage, spillage or damage that could cause leakage~~

~~under reasonably foreseeable conditions; and,~~

~~(e) Determining whether the material resulting from any release is hazardous waste and if so, the handler manage it as a hazardous waste;~~

~~(5) Universal Waste Treatment for Mercury-Containing Lamps. Handlers of universal waste may treat mercury-containing lamps for the purpose of volume reduction at the site where they were generated provided the handler:~~

~~(a) Crushes the lamps in a controlled unit that does not allow releases of mercury or other hazardous constituents to the environment;~~

~~(b) Ensures that mercury cleanup equipment is readily available to immediately transfer any material recovered from a spill or leak to a container that meets the requirements of 40 CFR 262.34;~~

~~(c) Immediately transfers any material resulting from spills or leaks from uncontained broken mercury-containing lamps to a container that meets the requirements of 40 CFR 262.34;~~

~~(d) Ensures that the area in which the lamps are crushed is well-ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;~~

~~(e) Ensures that employees crushing lamps are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers; and,~~

~~(f) Stores crushed lamps in closed, non-leaking containers that are in good condition (e.g., no severe rusting, apparent structural defects or deterioration), suitable to prevent releases during storage, handling, and transportation.~~

~~(6) Labeling/Marking for Mercury-Containing Lamps. In addition to the requirements in 40 CFR 273.14 and 40 CFR 273.34, universal waste mercury-containing lamps (i.e. each lamp) or a container in which the lamps are contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste Mercury-Containing Lamp(s)" or "Waste Mercury Containing Lamp(s)" or "Used Mercury Containing Lamp(s)"~~

Stat/ Auth: ORS 183.325, ORS 183.335, ORS 459, ORS 466.020 & ORS 468.020

Implemented: ORS 466.015, ORS 466.075 & ORS 466.195

Hist.: DEQ 12 1996, f. & cert. of. 7 31 96

12. Rule 340-113-0040 is proposed to be amended as follows:

340-113-0040

Standards for Off-Site Collection Sites

(1) Applicability.

(a) In addition to the applicable provisions of 40 CFR 273, Subparts B and C, and OAR 340-113-0030, the standards of this section apply to owners and operators of Off-site Collection Sites as defined in OAR 340-113-0020(4), accumulating more than 1,000 kilograms of universal waste at any one time.

(b) The requirements of this section do not apply to persons who collect, store or transport universal waste batteries described in Public Law 104-142 Section 3(5)(C), Title II of the law, or used rechargeable consumer products containing rechargeable batteries that are not easily removable.

(2) Notification.

(a) Pesticide collection programs are not subject to notification requirements in 40 CFR 273.32 and 340-113-0040(2)(b), but instead must comply with requirements of OAR 340-113-0070.

(b) Owners or operators of Off-site Collection Sites accumulating more than 1,000 kilograms of non-pesticide universal waste (~~batteries, mercury thermostats, and mercury-containing lamps~~) at any time must:

(A) Follow 40 CFR 273.32 (notification requirements for large quantity handlers) with the following exception: The notification requirement of 40 CFR 273.32(b)(5) is replaced with (B)(v) below.

(B) Off-site handlers must include at a minimum the following with their notification:

(i) Schedule of collection activity (i.e., daily, monthly, etc.);

(ii) An explanation of how the collection site will meet the applicable requirements for off-site handlers accumulating more than 1,000 kilograms of universal waste;

(iii) Names and addresses of all Off-site Collection Sites that will manage the universal wastes prior to shipment to a destination facility;

(iv) Names and addresses of destination facilities that have agreed to accept the universal wastes collected by the off-site handler;

(v) Maximum quantity of universal waste by type that will be accumulated at the collection site;

(vi) Any additional information requested by the Department; and

(vii) Certification statement that the information submitted to the Department is correct and the Off-site Collection Site is operating in compliance with the universal waste rule.

(c) Once the notification information has been submitted to the Department, a letter will be sent to the off-site handler acknowledging the receipt of the completed notification form.

(3) Accumulation time limits.

(a) For Off-site Collection Sites accumulating more than 1,000 kilograms of universal waste, the provisions in 40 CFR 273.15(a) and (b) and 273.35(a) and (b) are deleted and replaced with Section (3)(b) of this rule.

(b) Off-site Collection Sites may accumulate universal waste for no more than six months from the date the waste was first shipped to the first Off-site Collection Site, unless the handler has received written approval from the Department extending the accumulation time. (Note: Extensions may be granted if the handler can demonstrate that additional time is needed to facilitate proper recovery, treatment or disposal of the waste.)

(4) Tracking universal waste shipments.

(a) Off-site Collection Sites accumulating more than 1,000 kilograms of universal waste, must follow the tracking requirements in 40 CFR 273.39 with the following exception: Off-site Collection Sites accumulating more than 1,000 kilograms, but not more than 5,000 kilograms of universal waste at any time, are not required to record the name and address of the originating

universal waste handler (generator).

(b) In addition to the provisions in 40 CFR 273.39 (a) an Off-site Collection Site accumulating more than 1,000 kilograms of universal waste must also record the date the universal waste was received by the initial off-site handler.

(5) Reporting. Off-site Collection Sites accumulating more than 1,000 kilograms of universal waste at any time shall report to the Department by March 1 of each year, on forms provided by the Department. At a minimum, the following information shall be submitted for the previous calendar year:

- (a) The DEQ identification number, name and address of the universal waste handler;
- (b) Total quantity of each type of universal waste received; and
- (c) Locations of universal waste handlers and destination facilities waste was shipped to.

Stat. Auth.: ORS 466.020 & ORS 468.020

Stats. Implemented: ORS 466.015 & ORS 466.075

Hist.: DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 11-1998, f. & cert. ef. 6-26-98

13. Rule 340-113-0050 is proposed to be amended as follows:

340-113-0050

Standards for Destination Facilities

(1) Applicability. In addition to the provisions in **40 CFR 273.60**, for purposes of this rule, a destination facility can include:

- (a) A permitted hazardous waste facility or a hazardous waste recycling facility; or
- (b) A facility that has obtained a solid waste management permit for the sole purpose of reclaiming ~~mercury-containing~~ universal waste lamps.

(2) Reporting. All destination facilities that receive universal waste from off-site shall report to the Department by March 1 of each year, on forms provided by the Department. The following information shall be submitted for the previous calendar year:

- (a) The DEQ identification number, name and address of the universal waste destination facility;
- (b) Total amount of each type of universal waste received;
- (c) The manner in which each type of universal waste was managed at the destination facility; and,
- (d) Locations of universal waste handlers and destination facilities waste was shipped to.

Stat. Auth.: ORS 183.325 - ORS 183.335, ORS 466.020, ORS 466.180 & ORS 468.020

Stats. Implemented: ORS 466.015 & ORS 466.195

Hist.: DEQ 12-1996, f. & cert. ef. 7-31-96

gcalaba06/27/2000 12:52 PM

Attachment B.1
Supporting Procedural Documentation
Notice of Proposed Rulemaking Hearing
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
A Statement of Need and Fiscal Impact accompanies this form.

DEQ -Waste Management and Cleanup
Agency and Division

Susan M. Greco
Rules Coordinator

811 S.W. 6th Avenue, Portland, OR 97204
Address

Chapter 340
Administrative Rules Chapter Number

(503) 229-5213
Telephone

Public Hearing is on May 15, 2000, 1 p.m. to 3 p.m., Room 3A (Third Floor), Department of Environmental Quality, 811 S.W. 6th Avenue, Portland, Oregon 97204. Gary Calaba is the Hearings Officer.

Auxiliary aids for persons with disabilities are available upon advance request.

RULEMAKING ACTION

ADOPT:

AMEND: Rule 340-100-0002; 340-100-0010, 340-101-0004, 340-101-0033, 340-102-0011, 340-105-0003, 340-106-0001, 340-113-0000, 340-113-0010, 340-113-0020, 340-112-0030, 340-113-0040, 340-113-0050, and 340-135-0070.

REPEAL:

Stat. Auth.: ORS 183.325, 183.335, ORS 183.337, ORS 192, ORS 459, ORS 466.003, ORS 465.009, ORS 466.015, ORS 466.020, ORS 466.025, ORS 466.075, ORS 466.090, ORS 466.100, ORS 466.105, ORS 466.195 & ORS 468, ORS 646

RULE SUMMARY

Amend Oregon Administrative Rules to permanently adopt most federal hazardous waste rules published between October 9, 1998 and April 12, 2000, and amend state-only hazardous waste rules pertaining to hazardous blister and nerve agents, and toxic use reduction reporting. The purpose of adopting the proposed changes to current federal hazardous waste and to state-only rules is: (1) to largely maintain consistency and equivalency with the federal hazardous waste program, in order to implement that program in lieu of EPA, and (2) to clarify and amend rules for hazardous nerve and blister agent hazardous designation, and to streamline the toxic use reduction reporting schedule.

Attachment B.1
Supporting Procedural Documentation
Notice of Proposed Rulemaking Hearing
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

May 15, 2000 by 5:00 p.m.
Last Day for Public Comment

Authorized Signer and Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
for Amending Oregon Hazardous Waste Administrative Rules

Fiscal and Economic Impact Statement

Introduction

This Hazardous Waste rulemaking:

Amends Oregon Administrative Rules to permanently adopt federal rules primarily pertaining to hazardous waste cleanups, universal wastes, organic air emissions, landfill leachate, recycling; and Oregon regulation of nerve and blister agents, and toxic use reporting.

I. Federal Hazardous Waste Rules Amendments

1. Hazardous Remediation Waste Management Requirements (HWIR-Media). November 30, 1998.

Proposed Rule: Expands the use of Corrective Action Management Units (CAMU) and Temporary Units (TU) to include implementing remedies at permitted facilities that are not subject to corrective action (40 CFR 264.101); provides an exclusion from facility-wide corrective action at remediation-only facilities for those obtaining permits; and establishes regulations for using "staging piles" (allowing "piles" without triggering LDRs) during cleanups. The Department does not propose to adopt the Remediation Action Plans (RAPs) provisions as an alternative to RCRA permits, because the Department believes that it already has the authority to implement similar provisions. The Department also proposes not to adopt the exclusion for dredged materials managed under appropriate Clean Water Act or Marine Protection Research and Sanctuaries Act permits, because the Department is still evaluating the use of RCRA as an oversight tool for managing dredged sediments.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There is no known fiscal and economic impact on small businesses that are cleaning up hazardous wastes.

Large Businesses

There is no known fiscal and economic impact on large businesses that are cleaning up hazardous wastes.

Local Governments

There is no known fiscal and economic impact on local governments that are cleaning up hazardous wastes.

State Agency

There is no known fiscal and economic impact on state agencies from expanding cleanup options.

Housing Cost Impact Statement

The Department has determined that the 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.

2. Universal Waste Rule (Hazardous Waste Management System; Modification of the Hazardous Waste Recycling Regulatory Program). December 24, 1998.

Proposed Rule: Corrects errors that appeared in the original May 11, 1995 Universal Waste Rule (60 FR 25492) that was adopted by the Department with changes. No new regulatory requirements are created with this rule; instead it, (1) makes three corrections to regulations governing the management of spent lead-acid batteries that are reclaimed, (2) corrects the definition of a small quantity universal waste handler, and (3) clarifies the export requirements which apply to destination facilities, when the facilities act as universal waste handlers.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

No additional economic and fiscal impact on small businesses will occur from correcting errors in the original rule.

Large Businesses

No additional economic and fiscal impact on large businesses will occur from correcting errors in the original rule.

Local Governments

No additional economic and fiscal impact on local governments will occur from correcting errors in the original rule.

State Agency

No additional economic and fiscal impact on state agencies will occur from correcting errors in the original rule.

Housing Cost Impact Statement

The Department has determined that the 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.

3. Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps. July 6, 1999.

Proposed Rule: Rule adds spent hazardous waste lamps to the list of federal universal wastes and prohibits "treatment" of lamps.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

No additional economic and fiscal impact on small businesses will occur from adopting this rule, because the Department already includes lamps in its list of universal wastes, and no known "treatment" of lamps is occurring.

Large Businesses

No additional economic and fiscal impact on large businesses will occur from adopting this rule, because the Department already includes lamps in its list of universal wastes, and no known "treatment" of lamps is occurring.

Local Governments

No additional economic and fiscal impact on local governments will occur from adopting this rule, because the Department already includes lamps in its list of universal wastes, and no known "treatment" of lamps is occurring.

State Agency

No additional economic and fiscal impact on state agencies will occur from adopting this rule, because the Department already includes lamps in its list of universal wastes, and no known "treatment of lamps by lamp owners is occurring.

Housing Cost Impact Statement

The Department has determined that the 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.

4. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators; Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers, Clarification and Technical Amendments. January 21, 1999.

Proposed Rule: Previously, EPA set standards to reduce organic air emissions from certain hazardous waste management activities to levels that are protective of human health and the environment (59 FR 62896, December 6, 1994). The standards were amended by the December 8, 1997 rule (62 FR 64636-64671), in response to public comments and inquiries. This rule amends certain regulatory text and reinstates regulatory provisions that were previously contained in the rules and later inadvertently removed. As such, the rule adoption will make no significant changes to current operating procedures.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

No additional economic and fiscal impact on small businesses should occur from correcting the rules, because the amendment primarily reinstates requirements that were already in previously adopted rules and which were inadvertently omitted.

Large Businesses

No additional economic and fiscal impact should occur on large businesses from correcting the rules, because the amendment primarily reinstates requirements that were already in previously adopted rules and which were inadvertently omitted.

Local Governments

No additional economic and fiscal impact on local governments should occur from correcting the rules, because the amendment primarily reinstates requirements that were already in previously adopted rules and which were inadvertently omitted.

State Agency

No additional economic and fiscal impact should occur on state agencies from correcting the rules, because the amendment primarily reinstates requirements that were already in previously adopted rules and which were inadvertently omitted.

Housing Cost Impact Statement

The Department has determined that the 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.

5. Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Petroleum Refining Process Wastes; Exemption for Leachate from Non-Hazardous Waste Landfills. February 11, 1999.

Proposed Rule: Temporarily defers landfill leachate and landfill gas condensate from the definition of solid waste (and thus from the definition of hazardous waste) that are derived from previously disposed wastes that now must meet the petroleum refining waste listing descriptions, K169, K170, K171, and K172. (The Department adopted the petroleum refining wastes descriptions on March 19, 1999.)

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

No additional economic and fiscal impact on small businesses will occur, because there are no facilities in Oregon generating this waste.

Large Businesses

No additional economic and fiscal impact on large businesses will occur, because there are no facilities in Oregon generating this waste.

Local Governments

No additional economic and fiscal impact will occur, because there are no facilities in Oregon generating this waste.

State Agency

No additional economic and fiscal impact on state agencies will occur, because there are no facilities in Oregon generating this waste.

Housing Cost Impact Statement

The Department has determined that the 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.

6. Clarification and corrections, Phase IV land disposal restriction standards for wood preserving wastes, metal wastes, zinc micronutrient fertilizers, carbamate treatment standards, and K088 treatment standards. May 11, 1999, and October 20, 1999.

Proposed Rule: Two rules clarify and correct errors in the Phase IV land disposal restrictions standards for wood preserving wastes, treatment standards for metal wastes, zinc micronutrient fertilizers, carbamate treatment standards, and K088 treatment Standards, May 11, 1999 and October 20, 1999. These rules clarify and/or make technical corrections to the following five final rules which we have adopted:

- (1) May 12, 1997 (60 FR 26006-7), regulations promulgating Land Disposal Restrictions (LDR) treatment standards for wood preserving wastes, as well as reducing the paperwork burden for complying with LDRs;
- (2) May 26, 1998 (63 FR 28556), regulations promulgating LDR treatment standards for metal-bearing wastes, as well as amending the LDR treatment standards for soil contaminated with hazardous waste, amending the definition of which secondary materials from mineral processing are considered to be wastes subject to the LDRs; and correcting (October 20, 1999 64 FR 56459) 40 CFR 268.49(c)(1)(A) to reflect TCLP testing requirements for carbon disulfide, cyclohexanone and methanol;
- (3) August 31, 1998 (63 FR 46332), an administrative stay of the metal-bearing waste treatment standards as they apply to zinc micronutrient fertilizers;
- (4) September 4, 1998 (63 FR 172), an emergency revision of the LDR treatment standards for hazardous wastes from the production of carbamate wastes, and October 20, 1999 (64 FR 56459) reinserts 40 CFR 268.40(j) inadvertently omitted; and
- (5) September 24, 1998 (63 FR 51254), revised treatment standards for spent aluminum potliners from primary aluminum production, and October 20, 1999 (64 FR 56459) correcting the measurement unit for arsenic from "mg/l TCLP" to "mg/kg total."

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There is no fiscal and economic impact expected on small businesses, because these are clarifications and corrections to standards that the businesses already need to meet, if they are subject to them.

Large Businesses

There is no fiscal and economic impact expected on large businesses, because these are clarifications and corrections to standards that the businesses already need to meet, if they are subject to them.

Local Governments

There is no fiscal and economic impact expected on local governments, because these are clarifications and corrections to standards that local governments already need to meet, if they are subject to them.

State Agency

There is no fiscal and economic impact expected on state agencies, because these are clarifications and corrections to standards that the agencies already need to meet, if they are subject to them.

Housing Cost Impact Statement

The Department has determined that the 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.

7. Guidelines for Establishing Test Procedures for the Analysis of Oil and Grease and Non-Polar Material Under the Clean Water Act and Resource Conservation and Recovery Act. May 14, 1999.

Proposed Rule: This rule approves use of EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry (hereafter Method 1664) for use in Clean Water Act (CWA) programs, and incorporates Method 1664 by reference for use in Resource Conservation and Recovery Act (RCRA) programs. The rule also deletes Method 9070 and adds revised Method 9071B as Update IIIA to the Third Edition of the EPA-approved test methods manual SW-846. EPA took these actions as a part of their effort to reduce dependency on use of chlorofluorocarbons (CFCs) to protect Earth's ozone layer and to meet the CFC phaseout agreed to in the Montreal Protocol and required by the Clean Air Act Amendments of 1990.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There may be some fiscal and economic impact expected on small businesses operating Clean Water Act (CWA) treatment systems, because of costs associated with requirements to test for the presence of oil or grease in water.

Large Businesses

There may be some fiscal and economic impact expected on large businesses operating CWA treatment systems, because of costs associated with requirements to test for the presence of oil or grease in water.

Local Governments

There may be some fiscal and economic impact expected on local government operating CWA treatment systems, because of costs associated with requirements to test for the presence of oil or grease in water.

State Agency

There may be some fiscal and economic impact expected on state agencies operating CWA treatment systems, because of costs associated with requirements to test for the presence of oil or grease in water.

Housing Cost Impact Statement

The Department has determined that the 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.

8. Standards for Hazardous Air Pollutants for Hazardous Waste Combustors. September 30, 1999.

Proposed Rule: Establishes federal Maximum Achievable Control Technologies (MACT) standards for three source categories: hazardous waste burning incinerators, cement kilns, and hazardous waste burning aggregate kilns. The rule establishes federal standards for sources that emit or have the potential to emit 10 tons or greater per year of any single hazardous air pollutant or 25 tons per year or greater pollutants total; regulates area sources resulting in the regulation of all hazardous waste burning incinerators, cement kilns, and aggregate kilns. The rule establishes emission standards for chlorinated dioxins and furans, mercury, particulate matter, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas (combined). The rule also

establishes standards for carbon monoxide, hydrocarbons, and destruction and removal efficiency as surrogates in lieu of individual standards for nondioxin/furan organic hazardous air pollutants.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There is no fiscal and economic impact expected on small businesses, because no small business will be subject to these new rules.

Large Businesses

There are two facilities in Oregon that may be subject to these new requirements and potential economic and fiscal impact may be expected from having to meet the new mandated federal standards. The actual fiscal and economic impact will depend on the specific control technology adopted and is, therefore, indeterminate at this time.

Local Governments

No fiscal and economic impact is expected on local government, because no local government facilities exist that will be subject to these new rules.

State Agency

Some fiscal and economic impact is expected on the Department, because the Department will need to ensure that the new standards are met. It is unknown at this time exactly how many additional hours will be required to implement the standards, because the standards are new. However, the Department currently has FTEs delegated to implementing the standards at the Umatilla Chemical Agent Disposal Facility in Hermiston, Oregon, one of the two facilities impacted.

Housing Cost Impact Statement

The Department has determined that the 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.

9. 180 Day Accumulation Time Under RCRA for Waste Water Treatment Sludges from Metal Refinishing Industry. March 8, 2000.

Proposed Rule: Rule allows large quantity generators of F006 sludge (certain sludge from the treatment of electroplating waste waters) up to 180 days (current standard is 90 days) to accumulate

F006 wastes without a hazardous wastes storage permit or interim status, provided that these generators recycle the F006 through metals recovery and meet certain conditions. This gives as many as forty-one generators an incentive to choose metals recovery instead of treatment and land disposal as their final waste management option.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There may be some positive fiscal and economic impact on small businesses who receive income from the metal-bearing sludge accumulated for recycling rather than paying for disposal.

Large Businesses

There may be some positive fiscal and economic impact on large businesses who receive income from the metal bearing sludge accumulated for recycling rather than paying for disposal.

Local Governments

No fiscal and economic impact is expected on local government from this rule.

State Agency

No fiscal and economic impact is expected on state agencies from this rule.

Housing Cost Impact Statement

The Department has determined that the 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.

II. State-Only Hazardous Waste Rule Amendments

1. Clarify the Applicability of Hazardous Waste Codes to Chemical Nerve and Blister Agents.

Proposed Rule: Rule clarifies the current DEQ procedure for assigning codes to hazardous wastes blister and nerve agents, requiring that these hazardous wastes be classified by both federal and state hazardous waste determination procedures.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There is no direct fiscal and economic impact on small businesses.

Large Businesses

There is some fiscal and economic impact on one large business having to evaluate nerve and blister agents, and demilitarization residues in order to determine their hazardous waste codes.

Local Governments

There is no direct fiscal and economic impact on local government.

State Agency

There is some fiscal and economic impact on the Department having to oversee the determination of hazardous waste codes for blister and nerve agents, and demilitarization residue, although there are currently FTE assigned to oversee these determinations.

Housing Cost Impact Statement

The Department has determined that the 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.

2. Align Toxic Use Reduction Reporting Schedule with Hazardous Waste Reporting Schedule.

Proposed Rule: Amendment aligns toxic use annual reporting schedule with the March 1 hazardous waste reporting schedule.

General Public

There is no direct fiscal and economic impact on the general public from these rules.

Small Businesses

There is no fiscal or economic impact on small businesses.

Large Businesses

There should be some positive economic impact on large businesses, due to streamlined and more efficient reporting requirements.

Local Governments

There is no direct fiscal and economic impact on local governments, unless they are subject to the same reporting requirements as large businesses; in which case they would experience the identical fiscal and economic impact.

State Agency

There is no direct fiscal and economic impact on state agencies, unless they are subject to the same reporting requirements as large businesses; in which case they would experience the identical fiscal and economic impact. In addition, the overall fiscal and economic impact on the state to streamlined mailing and data entry should positively affect administrative costs.

Housing Cost Impact Statement

The Department has determined that the 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.

Gcalaba06/27/2000 1:12 PM

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Amending Oregon Hazardous Waste Administrative Rules

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

A. Amend Oregon Administrative Rules to permanently adopt most federal hazardous waste rules published between October 9, 1998 and April 12, 2000, and amend state-only hazardous waste rules pertaining to blister and nerve agent hazardous designation, and toxic use reduction reporting. The purpose of amending and adopting proposed changes to current federal hazardous waste and to state-only rules is: (1) to largely maintain consistency and equivalency with the federal hazardous waste program, in order to implement that program in lieu of EPA, and (2) to clarify and amend rules for hazardous nerve and blister agents and to streamline the toxic use reduction reporting schedule.

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 No

a. If yes, identify existing program/rule/activity:

The hazardous waste treatment, storage and disposal permit and solid waste disposal permit programs have been identified as programs affecting land use. OAR 340-18-0030.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No (see explanation below):

The majority of the amendments address changes to already existing federal hazardous waste regulations. Amendments to incorporate changes to federal regulations affecting hazardous waste generators, treatment, storage and disposal facilities, and combustors, will be incorporated into current permit and waste management criteria. Under current land use procedures, a Land Use Compatibility Statement is required of local government before a hazardous waste or solid waste permit is issued.

c. If no, apply the following criteria to the proposed rules.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

N/A

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

Waste Prevention and Management
Division

Intergovernmental Coord.

Date

gcalaba06/27/2000 11:50 AM

**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?

All rule changes proposed for adoption are changes to the federal program that have been promulgated by the Environmental Protection Agency (EPA). There are three federal rule changes DEQ proposes not to adopt. Two of the three changes to the federal program that the Department proposes not to adopt affect hazardous waste cleanups; the third change affects dredging hazardous waste sediments. Each is discussed below:

First, DEQ proposes not to adopt EPA's hazardous waste regulations that allow "Remedial Action Plans" (RAPs) and state-only cleanup authorities to act as hazardous waste permits for treating, storing, and disposing of hazardous wastes during hazardous waste cleanups, and to implement hazardous waste closure and post-closure requirements. The Department already uses state-only authorities to "permit" certain management activities and closure and post-closure requirements. Therefore, the Department does not need "RAPs" to allow treating, storing or disposing of hazardous waste during hazardous waste cleanups implemented by its state-only cleanup authorities

Second, DEQ proposes not to adopt EPA requirements for post-closure permits which allow alternative State cleanup authorities, or enforceable documents, to be used to impose federal hazardous waste closure and post-closure requirements at non-permitted land disposal facilities. The rule would explicitly allow DEQ's cleanup authorities to be used to impose the standards. However, adoption of this rule will require EPA review of DEQ's state cleanup authorities to determine if they are "equivalent" to federal Resource Conservation and Recovery Act (RCRA) authorities. Since the hazardous waste program believes it currently has the flexibility to use state cleanup authorities to implement RCRA corrective action, it is reluctant to proceed along the administratively intensive path of "authorizing" the Environmental Cleanup Program.

Third, DEQ proposes not to adopt EPA's rule eliminating RCRA oversight of dredged sediments that would otherwise be considered hazardous wastes. If adopted, this less stringent federal rule would allow hazardous waste sediments from known sources to be cleaned up under permits issued by the Clean Water Act and Marine Protection, Research and Sanctuaries Act. The hazardous waste regulations deter disposal of toxic wastes into the environment. Eliminating hazardous waste authority over hazardous toxic sediments removes an authority we need to retain, at least until DEQ has made a cross-program decision that the hazardous waste authority is not necessary. Therefore, DEQ recommends not adopting the dredged sediments exclusion from the definition of solid waste at this time.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

The rules the DEQ proposes not to adopt are both technology and performance.

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?

The rules the DEQ proposes not to adopt address issues that are of concern in Oregon. All hazardous wastes should be required to meet appropriate management standards before being disposed. However, the rules do not contribute any additional authority to Oregon's cleanup program. It is not known whether data or information specific to Oregon was considered in the establishment of the federal requirements.

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?

The regulated community is currently cleaning up hazardous wastes under either Oregon's hazardous waste or environmental cleanup programs. Oregon believes the flexibility exists under our current programs to achieve any of the benefits that may be available under these new federal rules.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

N/A

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Not adopting the rules still requires all affected parties cleaning hazardous waste to comply with the same state cleanup laws.

8. Would others face increased costs if a more stringent rule were not enacted?

N/A

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?

No.

10. Is demonstrated technology available to comply with the proposed requirement?

N/A

Attachment B.4
Supporting Procedural Documentation
Questions to be Answered to Reveal Potential Justification for Differing from Federal Regulations
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost-effective environmental gain?

N/A

Gcalaba06/27/2000 11:50 AM

State of Oregon
Department of Environmental Quality

Memorandum

Date: April 14, 2000
To: Interested and Affected Public
From: Anne Price, Manager, Hazardous Waste Policy and Program Development
Subject: Hazardous Waste Rulemaking

I. HAZARDOUS WASTE PROGRAM PROPOSED RULEMAKING PROCESS

This memorandum contains information on the rulemaking process and the content of a proposal by the Department of Environmental Quality (DEQ) to amend Oregon Administrative Rules (OAR) to permanently adopt federal changes to the Department's hazardous waste regulations. The DEQ routinely adopts federal rules to maintain equivalency with EPA, in order to implement the program in lieu of EPA. In addition, DEQ proposes to correct and amend state-only hazardous waste rules pertaining to blister and nerve agents at the Umatilla Chemical Agent Disposal Facility in Hermiston, and toxics use reduction reporting.

A. The Proposal

DEQ proposes to adopt most of the federal hazardous waste rules published between October 9, 1998 and April 12, 2000. October 9, 1998 is the date through which DEQ previously adopted federal rules. The federal rules in this package:

- clarify or technically change the existing universal waste rules;
- the organic air emission standards, and the land disposal restrictions;
- newly regulate hazardous waste combustors;
- facilitate hazardous waste cleanups;
- exempt certain landfill leachate and gas condensate from the definition of hazardous waste;
- establish new procedures for testing oil and grease in water; and
- allow metal bearing sludge to be accumulated for recycling.

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.

In addition, the Hazardous Waste Program is proposing two modifications to the state-only rules to:

- clarify that blister and nerve agents are listed hazardous wastes; and remove the current toxic use reduction reporting deadline to create more efficient and streamlined reporting by combining it with other hazardous waste reporting.

The DEQ proposes not to adopt three optional EPA rules. The first rule (see Section II., A., 2.) modifies the requirements for post-closure permits, allowing instead alternative state cleanup authorities, or enforceable documents, to be used to impose the federal hazardous waste closure and post-closure requirements at non-permitted land disposal facilities. The rule would explicitly allow DEQ's cleanup authorities to be used to impose the standards.

However, adoption of this rule would require EPA review to determine if the cleanup programs rules are "equivalent" to federal Resource Conservation and Recovery Act (RCRA) authorities. Since the hazardous waste program believes it currently has the flexibility to use state cleanup authorities to implement RCRA corrective action, it is reluctant to proceed along the administratively intensive path of "authorizing" the Environmental Cleanup Program.

The second federal rule (see Section II., A., 1.) DEQ proposes not to adopt would eliminate RCRA oversight from dredged sediments that would otherwise be considered hazardous wastes. If adopted, this less stringent federal rule would allow hazardous waste sediments from known sources (and characteristic sediments) to be cleaned up under permits issued by the Clean Water Act and Marine Protection, Research and Sanctuaries Act and not under RCRA. Eliminating hazardous waste authority over hazardous toxic sediments removes an authority that DEQ may want to retain, at least until DEQ determines that such authority is not necessary. DEQ recommends not adopting the dredged sediments exclusion from the definition of solid waste at this time.

The third federal rule (see Section II., A., 1.) DEQ proposes not to adopt would allow the use of Remedial Action Plans (RAPs). A RAP is a special form of a RCRA hazardous waste permit for treating, storing or disposing of hazardous remediation (cleanup) wastes. RAPs are legally enforceable "permit-like" documents authorizing these cleanup activities. RAPs do not affect any cleanup obligation that the responsible party has under RCRA, and the substantive cleanup portions of RCRA that apply still need to be met. DEQ believes that the Environmental Cleanup Program already has sufficient legal authorities to impose and authorize treatment, storage and disposal of hazardous remediation wastes, and therefore DEQ proposes not to adopt the RAP rule at this time.

With this rulemaking package, the Department has evaluated and made recommendations for all federal hazardous waste regulations promulgated by U.S. EPA between October 9, 1998 and April 12, 2000.

The Department has statutory authority to propose EQC adoption of rules under ORS 466.020,

ORS 183.310 to ORS 183.550, ORS 466.005 to ORS 466.385 and ORS 466.890; and implementing authority under ORS 183.325, ORS 183.335, ORS 183.337, ORS 192, ORS 459, ORS 466.003, ORS 465.009, ORS 466.015, ORS 466.025, ORS 466.075, ORS 466.090, ORS 466.100, ORS 466.105, ORS 466.195 & ORS 468, and ORS 646.

C. What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

- 1) Attachment A: The language of the proposed rule.
- 2) Attachment B: The official statement describing the fiscal and economic impact of the proposed rule. (Required by ORS 183.335.)
- 3) Attachment C: A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans.
- 4) Attachment D: Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

D. Rulemaking Process

How was the Rule Developed?

The Department routinely adopts federal hazardous waste regulations by reference to maintain equivalency with the federal hazardous waste program, in order to implement the program in lieu of EPA. With this rulemaking, the DEQ is also clarifying and correcting state-only hazardous waste regulations to ensure nerve and blister agents and certain "demilitarization residues" are "listed" hazardous wastes, and to streamline toxics use reduction reporting frequency. An advisory committee was not formed for this routine rulemaking. The rulemaking proposal will be mailed to interested parties on April 14, 2000.

Copies of the documents¹ relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Gary Calaba, (503) 235-6746, for times when the documents are available for review.

Public Hearing and Comments Process Details

The Department will conduct a public hearing on the proposed rule amendments at which comments will be accepted either orally or in writing. The hearing will be held as follows:

¹ Federal registers; OAR Chapter 340.

Attachment B.5
Supporting Procedural Documentation
Cover Memorandum from Public Notice
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

Date: May 15, 2000
Time: 1:00 p.m. to 3:00 p.m.
Place: Department of Environmental Quality
Rm. 3A (third floor), 811 S.W. 6th Avenue
Portland OR 97204.

Gary Calaba will be the Presiding Officer at the hearing.

Deadline for written comments: 5:00 p.m., May 15, 2000.

Written comments can be presented at the hearing or to the Department any time prior to 5:00 p.m., May 15, 2000. Comments should be sent to: Department of Environmental Quality, Attn: Gary Calaba, 811 S.W. 6th Avenue, Portland, Oregon 97204; or calaba.gary.j@deq.state.or.us.

No comments from any party can be accepted after the deadline for submission of comments has passed (ORS 183.335(13)). If you wish the Department to consider your comments in the development of these rules, you must submit them prior to the close of the comment period. The Department recommends that comments be submitted as early as possible to allow for adequate review and evaluation.

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 then review and evaluate the rulemaking proposal in light of all information received during the comment period. Following the review, the Department may present the rules to the EQC as originally proposed report or with modifications made in response to public comments received.

The EQC will consider the Department's recommendation for rule adoption at their **July 13 or July 14, 2000 meeting to be held in Tillamook, Oregon.**

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.

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: Gary Calaba at 503-229-6534; or calaba.gary.j@deq.state.or.us. Documents² relied upon in the development of this rulemaking proposal can be reviewed at the Department Headquarters office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Gary Calaba for times when the documents are available for review.

II. PROPOSED RULE DESCRIPTIONS

Listed below are the rules proposed for adoption and whom they may affect.

The rules proposed for adoption are arranged in two categories:

- A. Federal hazardous waste rule amendments; and
- B. State-only hazardous waste rule amendments.

A. Federal Hazardous Waste Rule Amendments

1. Proposed Rule: Hazardous Remediation Waste Management Requirements (HWIR-Media). November 30, 1998.

a. Background: EPA's rule streamlines permitting for treatment, storage and disposal of remediation wastes managed at RCRA cleanup sites. These new requirements:

- 1) expand the use of Corrective Action Management Units³ (CAMU) and Temporary Units (TU) to include implementation remedies at permitted facilities that are not subject to corrective action (40 CFR 264.101);
- 2) provide an exclusion from facility-wide corrective action at remediation-only facilities for those obtaining permits;
- 3) establish regulations for using "staging piles" (allowing "piles" without triggering LDRs) during cleanups;
- 4) establish Remediation Action Plans (RAPs) as an alternative to RCRA permits; and
- 5) provide an exclusion for dredged materials managed under appropriate Clean Water Act or Marine Protection Research and Sanctuaries Act permits.

The rule expands the definition of "CAMU" and changes current "CAMU" regulations for remediation-only facilities (or cleanup only facilities that need a permit only because they treat, store or dispose of hazardous waste) by no longer subjecting such facilities to facility-wide

² Federal hazardous waste rules and statutes.

³ CAMUs are technical units where hazardous wastes may be managed during hazardous waste cleanup.

corrective action. The changes make it clear that CAMUs and TUs may be used to treat, store or dispose of hazardous remediation wastes at remediation sites. These new regulations may make the CAMUs less desirable than those allowed under current law. However, in order to have the use of this flexible waste management unit at all, DEQ must adopt these changes or be considered less stringent than the federal hazardous waste program.

"Staging piles" are new, short-term remediation waste storage units that, when used to store hazardous remediation wastes, do not trigger Land Disposal Restrictions (LDRs) or Minimum Technology Requirements (MTR). Therefore, "staging piles" are desirable when moving hazardous remediation wastes from one area to another area on-site and allow temporary placement of the pile back onto the ground. Prior to this "staging pile" rule, placement of hazardous wastes on the ground in these situations triggered the restrictive LDRs.

The RAP is an alternative permitting mechanism and is used for authorizing storing, treating or disposing of hazardous remediation wastes. The RAP may be used to establish "CAMUs," "TUs," "staging piles" or any other waste management unit. RAPs contain site-specific remediation waste management requirements, provide a mechanism of enforcing those requirements, and provide for public participation. RAPs are stand-alone documents, but must include the applicable requirements in 40 CFR Parts 264, 266 and 268. The DEQ does not believe that RAPs are necessary because the state Environmental Cleanup Program already has enforceable authorities sufficient to allow RCRA cleanup of hazardous remediation wastes.

The dredged material exclusion from hazardous waste requirements applies to materials that are subject to the requirements of a Clean Water Act (CWA) or a Marine Protection, Research and Sanctuaries Act (MPRSA) permit, or to disposal of materials with return flows to waters of the United States. (If upland disposal results in no return flow, then current hazardous waste requirements would continue to apply.) EPA believes that CWA or MPRSA permits, coupled with extensive testing of materials and EPA Regional guidance, will ensure the protective management and discharge of dredge materials. The DEQ will not adopt this exclusion at this time, because: (1) it exempts hazardous wastes sediments from RCRA regulation; and (2) the DEQ is still evaluating whether to retain RCRA as an oversight tool for dredged sediment management.

b. Oregon Impact: EPA's rule provides some flexibility for RCRA cleanups; however, the DEQ is not proposing to adopt rules (4) and (5) listed above. EPA views all of these changes as "reduced requirements" compared to current standards.

c. Recommendation: Adopt all the regulations except for the RAP rule and the dredged materials exclusion. The Environmental Cleanup Program would gain nothing by using RAPs in lieu of its existing authorities to do cleanups at RCRA sites. In addition, under EPA review, the Environmental Cleanup Program would need to make an administratively intense demonstration that its authorities meet the substantive standards in 40 CFR Parts 264, 266 and 268, and corrective action.

DEQ recommends not adopting the dredged sediments exclusion from the definition of solid waste at this time. Adoption would eliminate oversight from dredged sediments that might otherwise be considered hazardous wastes. If adopted, this less stringent federal rule would allow hazardous waste sediments to be cleaned up under permits issued by the Clean Water Act and Marine Protection, Research and Sanctuaries Act. The hazardous waste regulations deter disposal of toxic wastes into the environment. Eliminating hazardous waste authority over hazardous toxic sediments removes an authority we need to retain, at least until DEQ has made a cross-program decision the hazardous waste authority is not necessary.

2. Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities: Post-Closure Permit Requirement and Closure Process. October 22, 1998.

a. Background: EPA requires hazardous waste treatment, storage and disposal (TSD) facilities to have RCRA permits. EPA also regulates "land disposal units" (i.e., hazardous waste landfills, waste piles, surface impoundments, and land treatment units), requiring such units to obtain permits if hazardous waste is left in place at closure. In addition, EPA requires corrective action at "solid waste management units" (SWMUs) that are located at facilities that have confirmed releases from regulated land disposal units. Hazardous waste releases at SWMUs trigger different cleanup standards and procedures than do releases from regulated land disposal units. As a result, implementing closure requirements and post-closure permits at "regulated land disposal units" while imposing corrective action of confirmed releases from SWMUs may result in dueling authorities and requirements for similar cleanups. EPA's post-closure rule is intended to coordinate the implementation of closure, post-closure and corrective action, regardless of the type of "unit" involved.

The rule:

- 1) Allows use of an enforceable, alternative authority in lieu of a RCRA permit to impose post-closure requirements;
- 2) Requires non-permitted facilities to continue to meet applicable RCRA regulations; but in addition, facilities must: (1) submit new information to EPA; (2) conduct facility-wide corrective action; (3) comply with groundwater monitoring requirements; and (4) meet all standards that permitted, regulated units at real TSD facilities obtaining post-closure permits would need to meet;
- 3) Requires a "meaningful" three-stage public involvement process; and
- 4) Allows EPA to replace closure and groundwater requirements at certain "hazardous waste units" provided: (1) the unit is situated among SWMU(s), a release has occurred, and both the SWMU and the regulated unit contribute wastes to the plume; or (2) EPA determines that applying hazardous waste closure and groundwater monitoring requirements for post-closure care is not necessary, because the cleanup remedy is protective; or (3) the remedy satisfies the RCRA closure performance standards.

b. Oregon Impact: It appears that all facilities cleaning up RCRA regulated wastes would be affected by this rule, and although the rule appears to offer flexibility at those cleanups, it:

- 1) May encompass facilities that do not need a RCRA style cleanup;
- 2) Creates an overlap by allowing EPA to revisit remedy selection;
- 3) Requires non-permitted facilities to obtain "permits" for hazardous waste cleanups; and
- 4) Allows EPA to implement the rule while DEQ pursues authorization.

If DEQ decides to adopt this rule and seek authorization for it, DEQ believes it will need to submit all state Environmental Cleanup Program statutes and regulations for EPA review. These state cleanup statutes and authorities would need to be determined by EPA to be sufficient to impose requirements consistent with the federal 40 CFR 264.101 requirements.

c. Department Recommendation: Do not adopt the rule. The downsides outweigh the potential flexibility in the rule. The DEQ believes it currently possesses the authority to utilize its state cleanup program to address regulated unit RCRA corrective action cleanups. Therefore, the requirement to subject DEQ's Environmental Cleanup Program to an equivalency determination by EPA is unnecessary.

3. Universal Waste Rule (Hazardous Waste Management System; Modification of the Hazardous Waste Recycling Regulatory Program). December 24, 1998.

a. Background: EPA's rule corrects errors that appeared in the original, May 11, 1995, Universal Waste Rule (60 FR 25492) that was adopted by the Department with state-only changes. No new regulatory requirements are created with this rule; instead it: (1) makes three corrections to regulations governing the management of spent lead-acid batteries that are reclaimed; (2) corrects the definition of a small quantity universal waste handler; and (3) clarifies the export requirements which apply to destination facilities, when the facilities act as universal waste handlers.

b. Oregon Impact: Universal waste handlers (approximately five) in Oregon will be affected by these technical clarifications.

c. Department Recommendation: Adopt the rules correcting the errors. The clarifications do not automatically become effective in Oregon until they are adopted. Adoption of these changes will align Oregon's Universal Waste Program with the federal program and will facilitate authorization of the hazardous waste program. These corrections must be adopted to become authorized.

4. Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps. July 6, 1999.

a. Background: This EPA rule adds spent hazardous waste lamps, primarily mercury-containing lamps, to the list of federal universal wastes. The universal waste management program is designed to keep some pollutants out of the nations' landfills. Handlers of federal universal wastes will be subject to less stringent standards for storing, transporting, and collecting these wastes. The new streamlined universal waste management requirements are intended to encourage better management of hazardous waste lamps and to facilitate compliance with hazardous waste requirements.

b. Oregon Impact: Oregon has already adopted mercury-containing lamps as state-only Universal Wastes. However, Oregon's program may be less stringent than the federal program, because Oregon allows lamps to be crushed by the generator. Under the new federal rules, "crushing" could be construed as "treatment," which is prohibited.

c. Department Recommendation: Adopt the federal provisions prohibiting treatment of lamps. Oregon's program will then be as stringent, and not considered less stringent, than the federal program. This will allow authorization of this portion of the program by EPA.

5. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators; Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers, Clarification and Technical Amendments. January 21, 1999.

a. Background: Previously, EPA set standards to reduce organic air emissions from certain hazardous waste management activities to levels that are protective of human health and the environment (59 FR 62896, December 6, 1994). The standards were amended by the December 8, 1997 rule (62 FR 64636-64671), in response to public comments and inquiries. This rule amends certain regulatory text and reinstates regulatory provisions that were previously contained in the rules and later inadvertently removed.

b. Oregon Impact: The Department has adopted all previous federal standards through December 8, 1997. The amendments are necessary to correct serious errors in the rule that would otherwise cause confusion for the Department and for the regulated community.

c. Department Recommendation: Adopt the rule. This rule is necessary to maintain consistency with the federal program.

6. Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Petroleum Refining Process Wastes; Exemption for Leachate from Non-Hazardous Waste Landfills. February 11, 1999.

a. Background: This rule temporarily defers landfill leachate and landfill gas condensate from the definition of solid waste (and thus from the definition of hazardous waste) when the landfill leachate and gas condensate contain wastes derived from previously disposed petroleum refining wastes that now must meet the petroleum refining waste listing descriptions, K169, K170, K171, and K172. The Department has adopted the petroleum refining waste listings. The exemption of the wastes from the definition of solid waste allows the wastes to be regulated under the provisions of the Clean Water Act. However, exempted leachate may not be managed in surface impoundments or placed on the land after February 13, 2001, except for temporary or emergency conditions.

b. Oregon Impact: There are no generators of these listed petroleum refining wastes in Oregon and none has been received at the state's only commercial hazardous waste landfill. Therefore, there is no known impact to leachate management in the State of Oregon.

c. Department Recommendation: Adopt the rule. Even though the Department could regulate the leachate as listed hazardous wastes, the Department recommends allowing any of the leachate that may "surface" to be regulated under the CWA. Treating such leachate under CWA permits should result in protection of human health and the environment.

7. Clarification and corrections, Phase IV land disposal restriction standards for wood preserving wastes, metal wastes, zinc micronutrient fertilizers, carbamate treatment standards, and K088 treatment standards. May 11, 1999, and October 20, 1999.

a. Background: These rules clarify and/or make technical corrections to the following five final rules previously adopted:

- 1) May 12, 1997 (60 FR 26006), regulations promulgating Land Disposal Restriction (LDR) treatment standards for wood preserving wastes, as well as reducing the paperwork burden for complying with LDRs;
- 2) May 26, 1998 (63 FR 28556), regulations promulgating LDR treatment standards for metal-bearing wastes; amending the LDR treatment standards for soil contaminated with hazardous waste; amending the definition of which secondary materials from mineral processing are considered to be wastes subject to the LDRs; and correcting October 20, 1999 40 CFR 268.49(c)(1)(A) to reflect TCLP testing requirements for carbon disulfide, cyclohexanone and methanol (64 FR 56459);
- 3) August 31, 1998 (63 FR 46332), an administrative stay of the metal-bearing waste treatment standards as they apply to zinc micronutrient fertilizers;

- 4) September 4, 1998 (63 FR 172), an emergency revision of the LDR treatment standards for hazardous wastes from the production of carbamate wastes, and October 20, 1999 (64 FR 56459) reinserts 40 CFR 268.40(j) inadvertently omitted; and
- 5) September 24, 1998 (63 FR 51254), revised treatment standards for spent aluminum potliners from primary aluminum production, and October 20, 1999 (64 FR 56459) correcting the measurement unit for arsenic from "mg/l TCLP" to "mg/kg total."

b. Oregon Impact: The Department has adopted and is currently implementing the regulations that are being clarified and corrected by this rulemaking. A wide range of industries are affected, particularly certain woodtreaters, aluminum manufacturers and Oregon's hazardous waste disposal facility, Chemical Waste Management. There should be very little, if any, impact from adopting these corrections.

c. Department Recommendation: Adopt the regulatory clarifications and technical corrections. Adoption of these rules is necessary to maintain consistency with the federal program and to maintain the state as the primary implementing agency.

8. Guidelines for Establishing Test Procedures for the Analysis of Oil and Grease and Non-Polar Material Under the Clean Water Act and Resource Conservation and Recovery Act. May 14, 1999.

a. Background: This rule approves use of EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry (hereafter, Method 1664) for use in Clean Water Act (CWA) programs, and incorporates Method 1664 by reference for use in Resource Conservation and Recovery Act (RCRA) programs. The rule also deletes Method 9070 and adds revised Method 9071B as Update IIIA to the Third Edition of the EPA-approved test methods manual SW-846. EPA took these actions as a part of their effort to reduce dependency on use of chlorofluorocarbons (CFCs) to protect the Earth's ozone layer, and to meet the CFC phaseout agreed to in the Montreal Protocol and required by the Clean Air Act Amendments of 1990.

b. Oregon Impact: This oil and grease testing method affects all facilities operating under the CWA permit program. There should be no impact felt by adopting the rule. The new test procedures are already in effect in Oregon, because on February 13, 1998, DEQ received approval from EPA under the alternative test procedures in 40 CFR Part 136 to use the same procedures that are being adopted.

c. Department Recommendation: Adopt the rule. These changes to testing protocols do not go into effect until Oregon adopts the rule. Adoption of the rule allows the Department to maintain consistency with the federal program and to maintain the state as the primary implementing agency.

9. Standards for Hazardous Air Pollutants for Hazardous Waste Combustors. September 30, 1999.

a. Background: This rule establishes Maximum Achievable Control Technologies (MACT) standards for three source categories: hazardous waste burning incinerators, hazardous waste burning cement kilns, and hazardous waste burning aggregate kilns. The rule establishes standards for sources that emit or have the potential to emit 10 tons or greater per year of any single hazardous air pollutant, or 25 tons per year or greater of pollutants in the aggregate. This rule also regulates area sources resulting in the regulation of all hazardous waste burning incinerators, cement kilns, and aggregate kilns. The rule establishes emission standards for chlorinated dioxins and furans, mercury, particulate matter, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas (combined). The rule also establishes standards for carbon monoxide, hydrocarbons, and destruction and removal efficiency as surrogates in lieu of individual standards for nondioxin/furan organic hazardous air pollutants.

b. Oregon Impact: This rule potentially affects two facilities in Oregon: Ormet Wah Chang and the Umatilla Chemical Agent Disposal Facility. Air Quality has a substantial portion of this rule to implement. The hazardous waste and air quality programs are coordinating efforts.

c. Department Recommendation: Adopt the rule. Adoption of the rule allows the Department to maintain consistency with the federal program and to maintain the state as the primary implementing agency.

10. 180 Day Accumulation Time Under RCRA for Waste Water Treatment Sludges from Metal Refinishing Industry. March 8, 2000.

a. Background: This rule allows large quantity generators of F006 sludge (certain sludge from the treatment of electroplating waste waters) up to 180 days to accumulate F006 wastes without a hazardous wastes storage permit or interim status, provided that these generators recycle the F006 through metals recovery and meet certain conditions.

b. Oregon Impact: This rule potentially affects forty-one large quantity generators that produce F006 metal-bearing sludge from electroplating. It may give generators an incentive to choose metals recovery instead of treatment and land disposal as their final waste management option.

c. Department Recommendation: Adopt the rule. Adoption of the rule provides an incentive to large quantity generators of F006 electroplating metal-bearing sludge to recycle the metals rather than dispose of them.

State-Only Hazardous Waste Rule Amendments

1. Clarify the Applicability of Hazardous Waste Codes to Chemical Nerve and Blister Agents.

a. Background: Certain hazardous waste codes apply to blister, nerve agents and "demilitarization" wastes generated by the Umatilla Chemical Agent Disposal Facility (UMCDF). Assigning the correct codes to any hazardous waste is important, because the codes dictate certain waste management practices and disposal pathways. The current DEQ procedure for assigning codes to hazardous wastes blister and nerve agents must be clarified to require that these hazardous wastes be classified by both federal and state hazardous waste determination procedures.

Prior to 1996, the Department only had a single listing of waste code P999 for nerve agents as commercial chemical products. At the time of that original listing, the Department considered blister agents (mustard agents) to be included in this listing for nerve agents. When it was learned that the U. S. Department of Defense classified blister agents separate from nerve agents, the Department moved to include an additional listing of P998 for blister agents in order to ensure adequate regulatory control over mustard agent and to deal with potential spill response and cleanup.

Since the adoption of those state-only hazardous waste codes, the Department has managed "demilitarization residues" generated from the management of these wastes as listed hazardous wastes themselves. Therefore, definitions of "demilitarization" and "demilitarization residue" are being proposed to clarify this intention.

b. Oregon Impact: The UMCDF is the only facility in Oregon that will be affected by this rule clarification.

c. Department Recommendation: Adopt the rule because it provides a regulatory clarification to a previously stated DEQ intention.

2. Align Toxic Use Reduction Reporting Schedule with Hazardous Waste Reporting Schedule.

a. Background: Currently, an important component of Oregon's Toxic Use Reduction (TUR) law is one that requires large toxics users and large quantity hazardous waste generators to complete annual progress reports each year, on or before September 1. Among other things, the reports describe efforts taken by the toxics user to reduce or eliminate the use of certain toxic substances. The report is maintained on-site, but a summary of the report is submitted to the Department no later than September 1, each calendar year after a plan is completed. During the 1997 Legislative Session, several modifications were made to the statutorily required annual reports. These changes significantly reduced the reporting universe of facilities and reduced the

quantity and type of information required to be submitted to DEQ. Given that the reporting has been greatly streamlined and given the Governor's Task Force on Hazardous Substance Reporting recommendation to simplify and make more efficient the reporting required by the regulated community, DEQ proposes to remove the September 1 deadline, and combine TUR reporting with the annual hazardous waste generator reporting already required in the Spring of each year.

b. Oregon Impact: This rule change will impact large toxics users and large quantity hazardous waste generators who are required to complete annual toxic use reduction progress reports. The impact should be positive and result in a more streamlined efficient and reduced duplication in reporting.

c. Department Recommendation: Amend the rule by changing the requirement to report annually from September 1 to March 1, or within 65 days from agency mailing, whichever is later.

gcalaba06/27/2000 2:07 PM

Attachment C
Presiding Officer's Report on Hearing for Rulemaking
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

State of Oregon
Department of Environmental Quality

Memorandum

Date: July 14, 2000

To: Environmental Quality Commission

From: Gary Calaba, Hazardous Waste Policy and Program Development, Waste Prevention and Management Division

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: May 15, 2000, beginning at 1:00 p.m.
Hearing Location: DEQ Headquarters, 811 S.W. 6th Ave., Room 3A
Portland, Oregon 97204

Proposal: Amend Oregon Administrative Rules to permanently adopt several federal hazardous waste regulations with amendments through April 12, 2000; and to clarify hazardous designation of blister and nerve agents, and residues from managing those agents.

The rulemaking hearing on the above proposal was convened at 1:05 p.m. Attendees were asked to sign witness registration forms if they wished to present oral testimony. Attendees were also advised that the hearing was being recorded and of the procedures to be followed.

Six people attended the Public Hearing, not including Department and EPA personnel. Two attendees registered and gave testimony. Six affected parties submitted written comments: two at the hearing, and the other four during the open comment period. Therefore, a total of six individuals or organizations commented.

With the record open, and prior to receiving testimony, Gary Calaba, Hearings Officer, briefly explained the specific rulemaking proposal and the reasons for the proposal. At the conclusion of testimony, the hearing was closed. The time was approximately 2:07 p.m.

Summary of Oral Testimony

The following summarizes the oral testimony of two commenters who also submitted similar written comments. These comments are responded to by the Department in Attachment D.

Attachment C
Presiding Officer's Report on Hearing for Rulemaking
Amending Oregon Hazardous Waste Rules
EQC Agenda Item B
July 14, 2000

1. Comment: Requested that DEQ maintain oversight of sediments from Wilsonville's proposed water treatment plant. Supported DEQ not adopting the "dredged material" exclusion.

Commenter: Charles D. Scott, Ph.D, Environmental/Industrial Toxicologist.

2. Comment: Encouraged the Department to adopt the "dredged material" exclusion now and not wait for a future rulemaking. "Capping" is not an option for Cascade General, Inc. EPA is on target to remove unnecessary overlap between RCRA and the Clean Water Act. EPA states that there is absolutely no reduction in the protection of human health and the environment by adopting the exclusion. The Department failed to answer questions 4, 9, and 11 as presented in Attachment B.4.

Commenter: T. Alan Sprott, Director of Environmental Services, Cascade General, Inc.

Written Testimony

The following people submitted written comments, and two* provide oral testimony, too:

1. Jim Craven, Government Affairs Manager, Oregon Council, American Electronics Association. Via e-mail received May 12, 2000.
2. Laura Weiss, M.P.H., Oregon Environmental Council, 520 SW Sixth Ave., Suite 940, Portland, OR 97204-1535. Via letter received May 12, 2000.
3. *T. Alan Sprott, Director of Environmental Services, Cascade General, Inc., 5555 North Channel Avenue, Portland, OR 97217. Via letter received May 12, 2000.
4. Thomas E. Savidge, Chief, Operations Division Corps of Engineers. Via e-mail received May 15, 2000.
5. *Charles D. Scott, Ph.D., Environmental/Industrial Toxicologist, 32170 S.W. Armitage Ct. N., Wilsonville, OR 97070. Via letter received May 15, 2000.
6. Cheryl R. Koshuta, Manager, Corporate Environmental Programs, Port of Portland, 121 NW Everett, Portland, OR 97209. Via letter received May 15, 2000.

The specific comments are responded to by the Department in Attachment D.

State of Oregon
Department of Environmental Quality

Memorandum

Date: July 14, 2000

To: Environmental Quality Commission

From: Anne R. Price, Manager, Hazardous Waste Policy and Program
Development, Waste Prevention and Management Division

Subject: Summary, Evaluation and Response to Public Comments Received

At the May 15, 2000 Public Hearing, the Department received oral comments from two commenters on the Department's proposal to amend Oregon Hazardous Waste Administrative Rules. Written comments from six commenters addressed some of those comments and added additional comments.

All of the public comments and the Department's responses are presented below.

Toxic Use Reduction Annual Reporting, Proposed Changes to OAR Chapter 340, Division 135.

One commenter recommends that DEQ not proceed with the proposed rule change. There were no comments in support of the Department's proposal. The comments in opposition included:

Comments:

- "... the original rationale for the September 1 deadline continues to makes sense, i.e., a company can do a more comprehensive job of determining its annual progress on toxic use reduction if it first completes its other reporting requirements, particularly its hazardous waste and toxic use inventory (TRI) reports."
- "What is the effective date of the proposed change? Companies are required under current rules to complete progress reports and to submit progress report data by September 1 of this year (2000). Would they also be required to submit such data again just six months later in March of 2001?"
- "The proposed rule contains an error in construction at 340-135-0070(a) and (c). The changed rule requires companies to complete a progress report 'on a written or electronic form provided by the Department. . . '. By law and rule, companies

are only required to submit certain data elements from their annual progress report (340-135-0070(3)), not the progress report itself."

- ". . . is the Department only changing the date for the so-called 'pounds report' but not the date for the overall progress report annual review? If so, then we are creating a two-part process with separate dates, which appears not to be in line with the intent to streamline the process."
- "We respectfully propose that this proposed rule change NOT be adopted by the Commission as is (especially given that it contains inadvertent errors), and that further work be done to ensure it meets the needs of regulated companies and the Department."

Commenter: Jim Craven, Government Affairs Manager, Oregon Council, America Electronics Association, May 12, 2000.

Department Response:

The Department is committed to streamlining its reporting requirements, including toxics use reporting. However, the Department acknowledges that its proposal fell short of achieving this goal. Therefore, the Department is withdrawing the proposed changes to the toxics use reporting schedule. The Department will await the results of implementing HB 2431, which includes reports to the legislature on hazardous and toxic substance reporting issues. If the Department believes opportunities for streamlining exist in the future, we will consult with the interested parties to achieve the best possible result.

The Federal "Dredged Material" Exclusion from the Definition of Hazardous Waste

The Department is not proposing to adopt the federal "dredged material" exclusion from the definition of hazardous waste. Therefore, this rule, and the other two the Department is not proposing to adopt, were described in the staff report merely to provide the regulated community with an overall picture of what's included in the state rules and what's not. The Department is not requesting any action on the part of the EQC with respect to these rules. The Department is responding to these comments in order to provide a more complete understanding of its decision not to adopt these optional rules.

Three commenters were opposed to the Department's decision not to adopt the dredged material exclusion, and two commenters supported the Department's position.

Comments:

- "OEC supports DEQ's decision not to adopt the EPA rule eliminating RCRA oversight from dredged sediments."

- "... DEQ need[s] to develop a more holistic approach for prevention and management of contaminated sediments. If the state were to adopt the federal rule, we would be giving up a level of flexibility that may be needed in the future."
- "As DEQ develops a strategy to implement the Governor's Executive Order on persistent, bioaccumulative toxic pollutants [PBTs], it will need a myriad of tools to effectively achieve its goal of zero discharge. As such, it makes sense to retain authority to apply RCRA if needed when dealing with managed of contaminated sediments in Oregon."
- "Cleanup of contaminated sediments poses significant economic and environmental challenges. . . . most cost-effective answer is to prevent the pollution and avoid the problem altogether. In addition to regulatory efforts, economic incentives act as a strong driver for pollution prevention. RCRA's influence on . . . can help to ensure that the incentives. . . exist to encourage pollution prevention."
- "Eliminating hazardous waste authority over hazardous toxic sediments removes an authority that DEQ should retain due to the new information collected from the Portland Harbor Sediments and the vast amount of hazardous waste constituents found in recent evaluation and testing of these sediments."

Commenter: Laura Weiss, M.P.H., Oregon Environmental Council, May 12, 2000;
Charles D. Scott, Ph.D., Environmental/Industrial Toxicologist, May 15, 2000.

Department Response:

The Department agrees with the commenters. The Department's decision not to adopt the dredged materials exclusion is based on the Department's desire to maintain flexibility to apply the regulations, if needed. If the Department were to adopt the federal exclusion, it would clearly concede flexibility that the Department may need in the future. In addition, eliminating RCRA jurisdiction takes away a powerful disincentive to pollute, de-emphasizing the need for Oregonians to reduce or eliminate toxics that they release into the environment, into the rivers.

As the commenter points out, the Governor's executive order to eliminate PBTs sends a message that the Department must consider the impact of its own actions on the release of or perpetuation of PBTs in the environment. Retaining RCRA authority at this time is the most responsible approach to protecting the environment.

The Department agrees that some contaminated sediments may pose a threat to human health and the environment. Because of this concern, the Department is unwilling to propose, at this time, to eliminate a potential regulatory tool that may be used to address

certain sediments. The Department desires to maintain the flexibility to require that the wastes be managed according to the hazardous waste regulations.

Comments:

- "... does not agree with DEQ's decision to not adopt the Environmental Protection Agency's (EPA's) Resource Conservation and Recovery Act (RCRA) exclusion for dredged materials managed under appropriate Clean Water Act (CWA) or Marine Protection Research and Sanctuaries Act (MPRSA) permits."
- "... DEQ not only rejected EPA's analysis but also did not identify any substantive reason to reject [adopting the "dredged materials" exclusion]."

Commenter: Cheryl R. Koshuta, Manager, Corporate Environmental Programs, Port of Portland, May 15, 2000.

Department Response: The Department has chosen, at this time, not to adopt an optional federal exclusionary rule. The Department has expressed several reasons for not jumping to adopt this exclusion. First, the Department expressed concern about situations where "dredged material" would contain hazardous waste, such as listed hazardous wastes, from known sources. For example, listed hazardous waste pesticide contaminated sediment. Such "dredged materials" would not be subject to hazardous waste regulation, if the Department were to adopt the exclusion. Second, the Department made it clear that it is still evaluating the best way to holistically manage hazardous "dredged materials," and continues to believe that it would be premature to eliminate the hazardous waste regulations as a management option. However, as the Department proceeds with its evaluation of the best management methods for dredged materials containing hazardous wastes, it may reconsider its decision, and possibly adopt other standards in lieu of the RCRA hazardous waste regulations.

Comment:

- "... EPA determined that the testing procedures under the CWA and MPRSA are better suited to the chemical and biological evaluation of dredged material disposed of in the aquatic environment, where the vast majority of dredged material is managed." 63 FR 65922, November 30, 1998.
- The results of the USEPA and USACE sediment evaluation and management over many years of nationwide monitoring have indicated that sediments rarely if ever contain hazardous constituents that qualify the materials as hazardous wastes under the RCRA rules."

Commenter: Cheryl R. Koshuta, May 15, 2000.

Department Response: The testing procedures under the CWA and MPRSA may be more relevant to a salt water environment than a fresh water environment; and since almost all dredged materials will be disposed in fresh water, the Department wants to retain other testing methodologies, such as the tests that exist in the hazardous waste program.

Comments:

- "In the words of EPA, "the dredged material exclusion will avoid duplicative regulatory processes while ensuring an accurate, appropriate, and environmentally sound evaluation of potential impacts to the environment."
- "EPA promulgated the dredged materials exemption to ensure. . . integrated approach to the regulation of dredged material disposal . . . avoided duplicative regulatory processes while ensuring. . . accurate, appropriate, and environmentally sound evaluation of potential impacts to the environment."
- ". . . USEPA noted that managing sediments under the CWA and MPRSA is protective of human health and the environment. . . by not adopting this rule DEQ will be perpetuating regulatory confusion and duplication of administrative efforts while placing an unnecessary burden on the regulated community and thus interstate commerce without adding meaningful environmental protection."
- "RCRA Subtitle C coverage of dredged material disposal is duplicative and unnecessary when considered alongside the CWA and MPRSA coverage of these activities."
- "These programs [CWA and MPRSA] incorporate appropriate biological and chemical assessments to evaluate the potential for human health impacts caused by food chain transfer of contaminants. . ."

Commenters: Cheryl Koshuta, May 15, 2000; T. Alan Sprott, May 12, 2000; Thomas E. Savidge, Chief, Operations Division Corps of Engineers, May 15, 2000.

Department Response: The Department agrees that duplicative regulatory authority may cause some confusion. However, the Department believes that maintaining joint authority over dredged materials is not necessarily a bad idea. As a matter of policy, the Department does not see RCRA applying in the vast majority of disposal situations, and as EPA points out in the preamble to the rule, studies show that "dredged material" typically does not fail hazardous waste characteristic tests. If this is accurate, then the fact that the Department wants to maintain RCRA jurisdiction may have little impact on potentially affected sediments.

Comments: The following comments point out that the department still retains some jurisdiction over the dredged material subject to the federal exclusion.

- "The exclusion actually only applies to dredged materials subject to a CWA or MPRSA permit. . . disposing of material in a manner that establishes a return flow does not trigger the exclusion. We believe it is an important consideration that the exclusion only applies when the dredged material is managed under permitted conditions."
- "EPA is clear that the exclusion applies only to the hazardous waste requirements of Subtitle C and not the solid waste requirements of Subtitle D. Dredged material is a media and may contain a solid or hazardous wastes and nothing in the exclusion undercuts the Department's ability to regulate dredged material as solid waste, or as hazardous waste if disposed at an upland facility."
- "Even in those cases where hazardous wastes may inadvertently be disposed in water, enforcement over such a disposal is still available both through RCRA and the CWA/MPRSA."
- "Adoption of the USEPA rule does not eliminate hazardous wastes in sediments from regulation."
- "By adopting the USEPA rule . . . the state is not reducing its ability to enforce the hazardous waste rules [on dredged material]."

Commenters: T. Alan Sprott, May 12, 2000; Thomas E. Savidge, May 15, 2000.

Department Response: The Department agrees with the clarifications made by the commenters. However, the Department is not prepared to release RCRA authority over these sediments even if they are potentially covered or possibly regulated by other programs or authorities until a thorough evaluation has been made of the value of RCRA oversight as a regulatory tool.

Even under the exclusion, dredged materials containing hazardous wastes that are disposed upland and have return flows would not be regulated as hazardous wastes.¹ Stated simply, this means that in order for upland disposed hazardous waste dredged materials to be regulated as hazardous waste, there may not be return flows. The Department is assessing whether, under certain environmental conditions, disposal upland, as currently permitted under the CWA or MPRSA may not be appropriate, and may benefit from additional evaluation. Requiring disposal of dredged materials containing hazardous wastes (most likely listed hazardous wastes) in a secure facility,

¹ Federal Register, Vol. 63, No. 229/November 30, 1998, page 65922.

when necessary to protect human health and the environment, remains a viable management option, and one that the Department does not want to eliminate at this time.

Comments:

- "... adopt EPA's RCRA dredged material exemption because it addresses the problem of costly duplicative and burdensome regulatory requirements while ensuring that human health and the environment continue to be adequately protect from dredged material disposal under the CWA and MPRSA."
- "... strongly urge the Department to reconsider and adopt the federal dredged material exclusion in the current rulemaking process."
- "... strongly encourage ODEQ to reconsider and adopt the USEPA rule for dredged material that is not a hazardous wastes."

Commenters: T. Alan Sprott, May 12, 2000; Cheryl R. Koshuta, May 15, 2000; Thomas E. Savidge, May 15, 2000.

Department Response: The Department appreciates the commenters' concerns, but believes that maintaining hazardous waste jurisdiction over dredged materials that contain hazardous waste, will not disrupt dredging operations, slow them down, or result in unnecessary duplication of effort. The Department simply wants to maintain clear authority and flexibility to implement hazardous waste requirements, if necessary.

Comments:

- "... sediment/sludge will be generated by the proposed [City of Wilsonville] Water Treatment Plant through the intake pipe and stored on-site . . . should be tested as any other generated material from a process or operation."
- "... request that the DEQ maintain the RCRA oversight of sediments that will be removed from the Willamette River by the 72 inch intake pipe for the City of Wilsonville's Water Treatment Plant (if built) and continue to require the testing of sediments stored on-site."

Commenter: Charles D. Scott, Ph.D., Environmental/Industrial Toxicologist, May 15, 2000.

Department Response:

With respect to the commenter's specific request, however, the exclusion likely does not apply to particles in the water, such as those that may be removed from the river by the proposed Wilsonville water treatment plant, because the particles do not meet the

definition of "dredged materials". As such, the Department believes that those materials that would be accumulated at the plant would be subject to hazardous waste regulation, if they were designated hazardous.

Comments:

- "... under OAR 340-011-0029, the Department is required to prepare a response to 11 questions intended to clearly identify the relationship between proposed rules and applicable federal requirements and facilitate consideration. . . rule adoption by the Environmental Quality Commission. This requirement also applies in cases where a federal rule is relaxed. We disagree with the Department's response to questions 4, 9, and 11 in regard to the dredged material exclusion."
- "... DEQ did not adequately address the fiscal impact of its dredged materials exemption decision nor appropriately address the Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirement, as mandatory under the Oregon Administrative Rules (OARs)."
- "... DEQ did not complete its fiscal and economic analysis with regard to this decision [not proposing to adopt the dredged materials exclusion] as required under ORS 183.335(E)."
- "... under . . . [OAR] 340-011-0029, DEQ is required to answer several questions developed to clarify the 'relationship between proposed rules and the applicable federal requirements. . . .' Rather than answer several of the questions, DEQ simply stated that the questions were not applicable. It is unclear how DEQ determined that these questions were not applicable when they are relevant and appropriate to the rulemaking.

Commenters: T. Alan Sprott, May 15, 2000; Cheryl R. Koshuta, May 12, 2000.

Department Response: The Department does not agree. Oregon Revised Statutes and Department rules neither require the Department to answer the "Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements" under 340-011-0029, nor prepare a Fiscal and Economic Impact Statement as required under ORS 183.335(E), for federal regulations that the Department is NOT proposing to adopt. Consequently, the questions the commenters refer to were answered only for the rules the Department is proposing to adopt. The Department is not required to adopt optional rules that are promulgated by EPA. The Department's decision to discuss these rules at some length was done to provide the regulated community with some perspective on how the Oregon program will differ from the federal program. The Commission is not being asked to adopt a position on the Department's decision not to adopt these federal rules.

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 26, 2000

To: Environmental Quality Commission

From: Anne R. Price, Manager, Hazardous Waste Policy and Program
Development
Section, Waste Prevention and Management Division

Subject: Rule Implementation Plan

The Hazardous Waste program will implement these rules in the following fashion:

1. Staff Notification:
Completion Date: July 15, 2000

HWPPD will send an electronic copy of the staff report and new rules to program staff statewide. In addition, electronic copies will be sent to DEQ Solid Waste and Finance and Operations Sections, and to DEQ Laboratory, Environmental Cleanup, and Air Quality Divisions. The purpose of this notification will be to alert interested parties to the changes as approved by the EQC and to highlight specific items that might be of interest to DEQ personnel in other programs.

2. Staff Training:
Completion Date: August 15, 2000

HWPPD staff will conduct training sessions in the regions (one per region).

This training will focus on specific rule changes including the following:

- Changes in the Universal Waste regulations
- Changes in management of F006 waste streams
- Changes in Corrective Action requirements regarding staging piles, etc.

This training will be made available to hazardous waste, solid waste, finance and operations, enforcement, and cleanup personnel.

3. Notification/outreach to regulated facilities:

Completion Date: August 31, 2000

- The HW program will provide targeted technical assistance to facilities that generate F006 waste (wastewater treatment sludges from electroplating operations). This assistance may take the form of a general mailing or on-site visits from field staff. The purpose of this assistance will be to educate the facilities about the management changes for this waste stream.
- HWPPD section will revise the existing fact sheet on fluorescent light tubes and make this available to the regional field staff for dissemination.
- HWPPD section will identify known fluorescent tube handlers and generators and send a letter with the fact sheet explaining the changes in tube management, and reference the web page information.

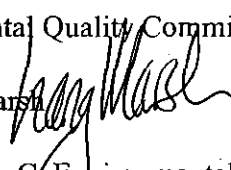
4. Other implementation activities:

Completion Date: August 31, 2000

- HWPPD will be responsible to put rules on the DEQ/HW web site.
- HWPPD will put the revised fluorescent tube fact sheet on the DEQ/HW web site.
- HWPPD will identify and make any changes that need to be made to facility notification forms and to program reporting documents, such as the HW annual generator report.

gcgjc06/27/2000 11:42 AM

State of Oregon
Department of Environmental Quality Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh 
Subject: Agenda Item C, Environmental Cleanup Rule Amendments
EQC Meeting July 13 - 14, 2000

Background

On April 13, 2000, the Director authorized the Environmental Cleanup Division to proceed to a rulemaking hearing on proposed rule amendments which would explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots." The existing rules have a preference only for treatment of "hot spots"; the amendments will conform the rules to the statute.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on May 1, 2000. 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 April 26, 2000.

A Public Hearing was held May 25, 2000 with Brooks Koenig serving as Presiding Officer. Written comment was received through May 31, 2000. The Presiding Officer's Report (Attachment C) notes there was no oral testimony presented at the hearing, and there were no written comments received.

As there were no comments received, the Department is recommending the rulemaking as proposed.

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 how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Memo To: Environmental Quality Commission
Agenda Item C, Environmental Cleanup Rule Amendments
EQC Meeting

Page 2

Issue this Proposed Rulemaking Action is Intended to Address

HB 3616, enacted as Chap. 740 Oregon Laws 1999, amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots." Our existing rules, OAR 340-122-070, 085, and 090, have a preference only for treatment of "hot spots"; the rules must be changed to conform with law. By definition, "treatment" does not include "excavation and off-site disposal."

Relationship to Federal and Adjacent State Rules

The state cleanup program is not a federally delegated program. DEQ believes the Oregon cleanup laws and rules are more stringent than the federal rules. These proposed amendments do not affect that relationship, but the proposed rules do level the playing field between treatment and excavation and off-site disposal as remedial alternatives within DEQ's rules.

Likewise, other states have differences on specific remedy selection criteria, but all states establish standards applicable within the state.

Authority to Address the Issue

The Department has the statutory authority to address this issue under ORS 465.400 and the applicable provisions of ORS 183.310 to 183.550. These rules implement ORS 465.315 as amended.


Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The Environmental Cleanup Division convened the Environmental Cleanup Advisory Committee (ECAC) in October 1999. Staff prepared draft rules that were responsive to the amended law and engaged the advisory committee in discussion of the rules at the October, December 1999, and March 2000 meetings. Consensus was reached at the March meeting on the proposed rules.

ECAC met again on April 12, 2000 and June 7, 2000 where staff reported progress on the rule package. ECAC remains supportive of the amendments as drafted.

There were few alternatives considered other than rule amendment. The existing rules conflicted with the new statute and amendment of the rules was readily agreed upon as the best approach as opposed to a "no action" alternative.

State of Oregon
Department of Environmental Quality Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh 
Subject: Agenda Item C, Environmental Cleanup Rule Amendments
EQC Meeting July 13 - 14, 2000

Background

On April 13, 2000, the Director authorized the Environmental Cleanup Division to proceed to a rulemaking hearing on proposed rule amendments which would explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots." The existing rules have a preference only for treatment of "hot spots"; the amendments will conform the rules to the statute.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on May 1, 2000. 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 April 26, 2000.

A Public Hearing was held May 25, 2000 with Brooks Koenig serving as Presiding Officer. Written comment was received through May 31, 2000. The Presiding Officer's Report (Attachment C) notes there was no oral testimony presented at the hearing, and there were no written comments received.

As there were no comments received, the Department is recommending the rulemaking as proposed.

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 how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

HB 3616, enacted as Chap. 740 Oregon Laws 1999, amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots" of contamination. DEQ's existing rules, OAR 340-122-070, 085, and 090 have a preference only for treatment of "hot spots." These rules must be changed to conform with law, as "treatment" does not include "excavation and off-site disposal."

All remedies, whether for "hot spots" or not, are subject to the following balancing factors: effectiveness, long-term reliability, implementability, implementation risk, and reasonableness of cost. However, both statute and rule direct that "a higher threshold shall be applied in evaluating the reasonableness of costs for treating hot spots of contamination . . ." This "higher threshold" has never been precisely defined, but excavation and off-site disposal will no longer suffer by comparison to treatment (i.e., if excavation and disposal is less expensive, it generally will be the preferred remedial action assuming other balancing factors are equal).

Excavation and off-site disposal as a remedy has always been subject to all of the remedy balancing criteria, and these amendments do not alter that requirement. What is altered is that excavation and off-site disposal no longer is at a disadvantage from the "higher cost threshold" that only treatment held before these amendments. As before, if there are remedies that offer greater effectiveness, more long term reliability, easier implementation, or less implementation risk, that remedy may be recommended if the cost is not disproportionately high for the benefits gained.

These amendments allow excavation and off-site disposal to be the remedy at soil hot spots by giving both treatment and excavation the same cost threshold.

The amendments also specify, in accordance with HB 3616, that the Director shall consider the method, route, and transport of RCRA hazardous wastes excavated and disposed off-site as a soil hot spot. This consideration may be made under existing rules for any hazardous substance. The amendment is consistent with this practice as well as HB 3616.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

There is no implementation plan *per se*. DEQ staff apply the balancing factors to all remedies now and they have applied the "equal threshold" since the statute was enacted. These rule amendments make the rules consistent with the statute. DEQ will amend its guidance, but, as guidance is not mandatory, the changes will occur with other refinements to cleanup policy.

Memo To: Environmental Quality Commission
Agenda Item C, Environmental Cleanup Rule Amendments
EQC Meeting

Page 4

Recommendation for Commission Action

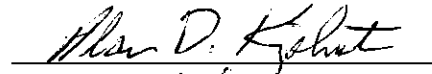
It is recommended that the Commission adopt the rule amendments establishing a cost threshold for excavation and off-site disposal that is equal to treatment when considered as a remedy for soil hot spots. These amendments are presented in Attachment A of the Department Staff Report.

Attachments

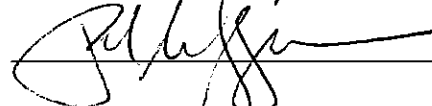
- A. Rule Amendments Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Legal Notice of Hearing
 - 2. Fiscal and Economic Impact Statement
 - 3. Land Use Evaluation Statement
 - 4. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
 - 5. Cover Memorandum from Public Notice
- C. Presiding Officer's Report on Public Hearing
- D. Rule Implementation Plan

Approved:

Section:



Division:



Report Prepared By: Brooks Koenig

Phone: (503) 229- 6801

Date Prepared: June 22, 2000

BK/bk
F:\TEMPLATE\FORMS\EQCRULE.DOT
06/22/00

Memo To: Environmental Quality Commission
Agenda Item C, Environmental Cleanup Rule Amendments
EQC Meeting

Page 3

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

HB 3616, enacted as Chap. 740 Oregon Laws 1999, amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil “hot spots” of contamination. DEQ’s existing rules, OAR 340-122-070, 085, and 090 have a preference only for treatment of “hot spots.” These rules must be changed to conform with law, as “treatment” does not include “excavation and off-site disposal.”

All remedies, whether for “hot spots” or not, are subject to the following balancing factors: effectiveness, long-term reliability, implementability, implementation risk, and reasonableness of cost. However, both statute and rule direct that “a higher threshold shall be applied in evaluating the reasonableness of costs for treating hot spots of contamination . . .” This “higher threshold” has never been precisely defined, but excavation and off-site disposal will no longer suffer by comparison to treatment (i.e., if excavation and disposal is less expensive, it generally will be the preferred remedial action assuming other balancing factors are equal).

Excavation and off-site disposal as a remedy has always been subject to all of the remedy balancing criteria, and these amendments do not alter that requirement. What is altered is that excavation and off-site disposal no longer is at a disadvantage from the “higher cost threshold” that only treatment held before these amendments. As before, if there are remedies that offer greater effectiveness, more long term reliability, easier implementation, or less implementation risk, that remedy may be recommended if the cost is not disproportionately high for the benefits gained.

These amendments allow excavation and off-site disposal to be the remedy at soil hot spots by giving both treatment and excavation the same cost threshold.

The amendments also specify, in accordance with HB 3616, that the Director shall consider the method, route, and transport of RCRA hazardous wastes excavated and disposed off-site as a soil hot spot. This consideration may be made under existing rules for any hazardous substance. The amendment is consistent with this practice as well as HB 3616.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

There is no implementation plan *per se*. DEQ staff apply the balancing factors to all remedies now and they have applied the “equal threshold” since the statute was enacted. These rule amendments make the rules consistent with the statute. DEQ will amend its guidance, but, as guidance is not mandatory, the changes will occur with other refinements to cleanup policy.

In the Matter of Rulemaking)
 To Elevate Selection or Approval of)
 Excavation and Off-Site Disposal as a) Proposed Rules
 Remedy for Environmental Cleanup)
 In Certain Circumstances, Implementing)
 HB 3616 from the 1999 Legislative Session)

1. Proposed adoption of the following rule amending Oregon Administrative Rule 340-122-070 as follows:

Removal

340-122-070 (1) Based upon the Preliminary Assessment or other information, the Director may perform, ~~or require to be performed,~~ or approve a removal that the Director determines is consistent with the standards set forth under OAR 340-122-040 and is necessary to prevent, minimize, or mitigate damage to the public health, safety and welfare, and the environment that might result from the release or threat of release of hazardous substances. A removal may address potential harm posed by the toxicity, corrosivity, flammability, ignitability, and other threats to public health, safety and welfare, and the environment from a release or threat of release. A removal may include, but is not limited to, offsite transport and disposal of hazardous substances if such action would be consistent with and expedite completion of remedial action or would minimize the need for onsite engineering or institutional controls.

(2) The performance of a removal shall not affect the Director’s authority to perform or require to be performed a remedial action in addition to the removal, if such remedial action will permanently or more fully address a release or threat of release of hazardous substances. The Director may undertake or require that a removal be undertaken at any time from the discovery of a release or threat of a release through the completion of a remedial action.

Stat. Auth.: ORS 465.400(1) & 468.020

Stats. Implemented: ORS 465.200 to 465.455, 465.900 and 466.706 to 466.835 and 466.895

Hist.: DEQ 26-1988, f. & cert. ef. 9-16-89; DEQ 12-1992, f. & cert. ef. 6-9-92

2. Proposed adoption of the following rule amending Oregon Administrative Rule 340-122-085 as follows:

Feasibility Study

340-122-085 (1) If, based upon the remedial investigation, the results of a removal, or other information, the Director determines that remedial action might be necessary to protect public health, safety or welfare or the environment, the Director may perform or require to be performed a feasibility study to develop information for selection or approval of a remedial action.

Rules as Submitted to Environmental Quality Commission on July 13 – 14, 2000

(2) A feasibility study shall develop and evaluate a range of remedial action alternatives acceptable to the Department, including any or all of the following:

- (a) No action;
- (b) Remedial action utilizing engineering and/or institutional controls;
- (c) Remedial action utilizing treatment;
- (d) Remedial action utilizing excavation and transportation to an offsite disposal facility;

and

- (e) Any combination of the above, as appropriate.

(3) Remedial action alternatives may be eliminated from development or evaluation in the feasibility study if, based on the remedial investigation and consideration of factors specified in OAR 340-122-090, the Department determines one or more remedial action alternatives are not protective, feasible or appropriate for the facility.

(4) For each remedial action option developed under section (2) of this rule, the feasibility study shall evaluate:

(a) The protectiveness of the alternative based upon the standards set forth in OAR 340-122-040;

(b) The feasibility of the alternative based upon a balancing of the remedy selection factors set forth in OAR 340-122-090(3) and (4); and

(c) The extent to which the remedial action alternative ~~treats~~ remediates hot spots of contamination based upon the criteria set forth in sections (5) and ~~(76)~~ of this rule and OAR 340-122-090(4).

(5) For groundwater or surface water in which a significant adverse effect on existing or reasonably likely future beneficial uses has been identified under OAR 340-122-080(6):

(a) The feasibility study shall evaluate treatment to concentrations that ensure such significant adverse effects will not occur. Specifically, the following shall be evaluated:

(A) Whether treatment is reasonably likely to restore or protect a beneficial use within a reasonable time; and

(B) The extent to which treatment is feasible, considering the remedy selection factors set forth in OAR 340-122-090, including application of the higher threshold for evaluating the reasonableness of the cost of treating hot spots of contamination.

(b) Where a concentration identified in subsection (5)(a) of this rule is not equivalent to an acceptable risk level:

(A) The feasibility study shall evaluate the feasibility of treatment to the concentration identified in subsection (5)(a), regardless of whether that level is more or less stringent than the acceptable risk level, applying the higher threshold for reasonableness of the cost of treatment; and

(B) Where the acceptable risk level is more stringent than the concentration identified in subsection (5)(a), the feasibility study shall also evaluate the feasibility of treatment to the acceptable risk level, without application of the higher threshold for reasonableness of the cost of treatment. If treatment to a more stringent acceptable risk level is not feasible, the feasibility study shall evaluate other remedial measures providing protection while allowing beneficial use of the water.

(6) For contamination of media other than groundwater or surface water, the feasibility study shall evaluate the extent to which the hazardous substances cannot be reliably contained.

(7) For hot spots of contamination in media other than groundwater or surface water that have been identified under OAR 340-122-080(7) or section (6) of this rule, the feasibility study shall evaluate:

~~(a) The feasibility of treatment, and the feasibility of excavation and offsite disposal at an authorized disposal facility, to a point where the concentration or condition making the hazardous substance a hot spot would no longer occur at the facility, based upon a balancing of the remedy selection factors set forth in OAR 340-122-090 and an application of the higher threshold for evaluating the reasonableness of the cost of treatment and of the cost of excavation and offsite disposal of hot spots of contamination; and~~

~~(8b) For contaminant concentrations in media other than water that would remain after treatment or excavation and off-site disposal pursuant to section (7) of this rule, the feasibility study shall evaluate the feasibility of a range of remedial action alternatives to achieve the acceptable risk level. The evaluation shall be based upon a balancing of the remedy selection factors in OAR 340-122-090 treatment to the acceptable risk level through comparison to other remedial methods without application of the higher thresholds, under section (7), for reasonableness of the cost of the treatment and excavation and offsite disposal of hot spots of contamination.~~

(89) The feasibility study should recommend a protective and feasible remedial action from the remedial action alternatives developed and evaluated in the feasibility study. For any recommended remedial action, the feasibility study shall:

- (a) Identify the extent to which the remedial action alternative would be conducted onsite;
- (b) Identify all state or local permits, licenses, or other authorizations or procedural requirements that would be exempted pursuant to ORS 465.315(3);
- (c) Describe any consultation with affected state or local government bodies; and
- (d) Identify applicable substantive requirements of the affected state or local laws and how they would be addressed.

Stat. Auth.: ORS 465.315 & 465.400

Stats. Implemented: ORS 465.200 to 465.455, 465.900 and 466.706 to 466.835 and 466.895

Hist.: New

3. Proposed adoption of the following rule amending Oregon Administrative Rule 340-122-090 as follows:

Selection or Approval of the Remedial Action

340-122-090 (1) Based on the administrative record, the Director shall select or approve a remedial action that:

- (a) Is protective of present and future public health, safety and welfare and of the environment, as specified in OAR 340-122-040;

Rules as Submitted to Environmental Quality Commission on July 13 – 14, 2000

(b) Is based on balancing of remedy selection factors, as specified in section (3) of this rule; and

(c) Satisfies the requirements for ~~Treats~~ hot spots of contamination ~~to the extent feasible,~~ as specified in section (4) of this rule.

(2) A remedial action may achieve protection through:

- (a) Treatment;
- (b) Excavation and offsite disposal;
- (c) Engineering controls;
- (d) Institutional controls;
- (e) Any other method of protection; or
- (f) A combination of the above.

(3) In determining the appropriate method of remediation for a specific facility, the Director shall select or approve a protective remedial action that balances the following factors:

(a) **Effectiveness.** Each remedial action alternative shall be assessed for its effectiveness in achieving protection, by considering the following, as appropriate:

(A) Magnitude of risk from untreated waste or treatment residuals remaining at the facility absent any risk reduction achieved through onsite management of exposure pathways, as determined in OAR 340-122-084(4)(a). The characteristics of the residuals shall be considered to the degree that they remain hazardous, taking into account their volume, toxicity, mobility, propensity to bioaccumulate, and propensity to degrade;

(B) Adequacy of any engineering and institutional controls necessary to manage the risk from treatment residuals and untreated hazardous substances remaining at the facility, as determined in OAR 340-122-084(4)(b);

(C) With respect to hot spots of contamination in water, the extent to which the remedial action restores or protects existing and reasonably likely future beneficial uses of water;

(D) Adequacy of treatment technologies in meeting treatment objectives;

(E) Time until the remedial action objectives would be achieved; and

(F) Any other information relevant to effectiveness.

(b) **Long term reliability.** Each remedial action alternative shall be assessed for its long-term reliability, by considering the following, as appropriate:

(A) Reliability of treatment technologies in meeting treatment objectives;

(B) Reliability of engineering and institutional controls necessary to manage the risk from treatment residuals and untreated hazardous substances, taking into consideration the characteristics of the hazardous substances to be managed and the effectiveness and enforceability over time of engineering and institutional controls in preventing migration of contaminants and in managing risks associated with potential exposure;

(C) Nature, degree, and certainties or uncertainties of any necessary long-term management (e.g., operation, maintenance, and monitoring); and

(D) Any other information relevant to long-term reliability.

(c) **Implementability.** Each remedial action alternative shall be assessed for the ease or difficulty of implementing the remedial action, by considering the following, as appropriate:

(A) Practical, technical, and legal difficulties and unknowns associated with the construction and implementation of a technology, engineering control, or institutional control, including potential scheduling delays;

(B) The ability to monitor the effectiveness of the remedy;

(C) Consistency with federal, state and local requirements; activities needed to coordinate with other agencies; and the ability and time required to obtain any necessary authorization from other governmental bodies;

(D) Availability of necessary services, materials, equipment, and specialists, including the availability of adequate offsite treatment, storage, and disposal capacity and services, and availability of prospective technologies; and

(E) Any other information relevant to implementability.

(d) **Implementation Risk.** Each remedial action alternative shall be assessed for the risk from implementing the remedial action, by considering the following, as appropriate:

(A) Potential impacts on the community during implementation of the remedial action and the effectiveness and reliability of protective or mitigative measures;

(B) Potential impacts on workers during implementation of the remedial action and the effectiveness and reliability of protective or mitigative measures;

(C) Potential impacts on the environment during implementation of the remedial action and the effectiveness and reliability of protective or mitigative measures;

(D) Time until the remedial action is complete; and

(E) Any other information related to implementation risk.

(e) **Reasonableness of Cost.** Each remedial action alternative shall be assessed for the reasonableness of the cost of the remedial action, by considering the following, as appropriate:

(A) Cost of the remedial action including:

(i) Capital costs, including both direct and indirect costs;

(ii) Annual operation and maintenance costs;

(iii) Costs of any periodic review requirements; and

(iv) Net present value of all of the above;

(B) Degree to which the costs of the remedial action are proportionate to the benefits to human health and the environment created through risk reduction or risk management;

(C) With respect to hot spots of contamination in water, the degree to which the costs of the remedial action are proportionate to the benefits created through restoration or protection of existing and reasonably likely future beneficial uses of water;

(D) The degree of sensitivity and uncertainty of the costs; and

(E) Any other information relevant to cost-reasonableness.

(4) The Director shall select or approve a protective remedial action in accordance with the following:

(a) — (a) For hot spots of contamination in water, the Director shall select or approve

Treatment of hot spots of contamination to the extent treatment is feasible
considering the treatment criteria in OAR 340-122-085(5) and (7) and the factors set forth in OAR 340-122-090(3);

(b) For hot spots of contamination in media other than water, the Director shall select or approve treatment or excavation and offsite disposal at an authorized disposal facility

or the combination of treatment or excavation, to the extent such measures are feasible considering the criteria in OAR 340-122-085(7) and the factors set forth in OAR 340-122-090(3).

(bc) The cost of a remedial action shall not be considered reasonable if the costs are disproportionate to the benefits created through risk reduction or risk management;

(ed) A higher threshold shall be applied in evaluating the reasonableness of costs for treating hot spots of contamination, whether such treatment occurs onsite or in conjunction with excavation and offsite disposal, when compared to other remedial action alternatives; and

(de) Subject to the preference for treatment of hot spots of contamination and subject to the preferences for treatment and excavation of hot spots of contamination in media other than water, where two or more remedial action alternatives are protective, the least expensive alternative shall be preferred, unless the additional cost of a more expensive remedial action alternative is justified by proportionately greater benefits within one or more of the factors set forth in OAR 340-122-090(3).

(f) If contamination (A) is a hot spot in media other than water; (B) will be excavated and disposed of at an offsite location; and (C) meets the definition of a hazardous waste pursuant to ORS 466.005, the Director shall consider the method, route, and distance for transportation of the contaminants to available disposal facilities in selecting or approving the remedial action.

(5) Any person responsible for undertaking the remedial action who proposes one remedial action alternative over another shall have the burden of demonstrating to the Director through the remedial investigation and feasibility study that such remedial action alternative fulfills the requirements of OAR 340-122-090.

(6) Subject to the remedy selection factors specified in section (3) of this rule, in selecting or approving a protective remedial action alternative, the Director shall consider current and reasonably anticipated future land uses at the facility and surrounding properties, taking into account:

(a) Current land use zoning;

(b) Other land use designations;

(c) Land use plans as established in local comprehensive plans and land use implementing regulations of any governmental body having land use jurisdiction; and

(d) Concerns of the facility owner, neighboring owners, and the community.

(7) The Director may incorporate into the selection or approval of a remedial action:

(a) Such periodic review or inspections as are necessary to ensure protection of present and future public health, safety and welfare and of the environment;

(b) A delineation of the extent to which the remedial action occurs onsite, for purposes of ORS 465.315(3); and

(c) Designation of points of compliance for measuring attainment of any remedial action objective. Designation of points of compliance shall consider proximity to the source of the release and exposure pathways evaluated in the baseline risk assessment. Points of compliance shall be established as close as possible to the source of the release, and may also be established at other points relevant to exposure pathways and receptors.

Stat. Auth.: ORS 465.400(1), Ch. 466 & 468.020

Rules as Submitted to Environmental Quality Commission on July 13 – 14, 2000

Stats. Implemented: ORS 465.200 to 465.455, 465.900 and 466.706 to 466.835 and 466.895
Hist.: DEQ 26-1988, f. & cert. ef. 9-16-89; DEQ 12-1992, f. & cert. ef. 6-9-92

Rules as Submitted to Environmental Quality Commission on July 13 – 14, 2000

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
A Statement of Need and Fiscal Impact accompanies this form.

DEQ - WMC

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 97204

Address

May 25, 2000

Hearing Date

4:30 pm

Time

811 SW 6th Avenue, Portland Rm 3A

Location

DEQ STAFF
To be named
Hearings Officer

Are auxiliary aids for persons with disabilities available upon advance request?

X Yes No

RULEMAKING ACTION

ADOPT:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

AMEND:

340-122-0070, 340-122-0085, 340-122-0090

REPEAL:

RENUMBER:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

AMEND AND RENUMBER:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

Stat. Auth.: ORS 465.400

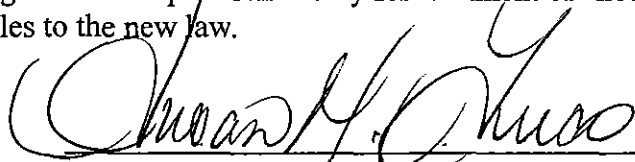
Stats. Implemented: ORS 465.315

RULE SUMMARY

HB 3616 amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots". The existing rules has a preference only for treatment of "hot spots"; this rulemaking will conform the existing rules to the new law.

May 31, 2000

Last Day for Public Comment


Authorized Signer and Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Environmental Cleanup Rule Amendments (“Hot Spots”)

Fiscal and Economic Impact Statement

Introduction

- Statement of overall degree of economic impact

ECD expects a minor degree of overall economic impact. There are no direct fee impacts with these proposed rule changes, and the indirect impacts are speculative. While industry sponsored the legislation that requires the rule changes in anticipation of lower cost cleanups and increased disposal, it is quite speculative as to how many more excavation and off-site disposal (a.k.a., “dig ‘n haul”) cleanups will occur. Excavation and off-site disposal has always been an option for remediating “hot spots,” but there was a preference for treatment. This preference was an undefined “higher cost threshold” in favor of treatment. With the proposed rules, excavation and off-site disposal and treatment will have the same cost basis and will be evaluated on the other four balancing factors (effectiveness, long-term reliability, implementability, and implementation risk). Because this evaluation will be conducted on a site-by-site basis, it is too speculative to state what either the Responsible Party’s (RP’s) cost savings may be or what increase in tipping fees may be garnered by DEQ.

General Public

There are no direct fiscal impacts on the general public. Some members of the public may perceive that the quality of the cleanup is inferior as “dig ‘n hauls” may leave more contamination behind to be managed by insitutional controls. ECD believes the quality of the cleanups will remain the same. The Department has always applied the “balancing factors” to select the remedy that makes the most sense – both from an environmental and an economic standpoint. This rule will have a minimal impact on remedy selection and a minimal impact on tipping fees going to DEQ.

Small Business

There are no direct fiscal impacts on small businesses. Some businesses felt that the existing rules sometimes “required treatment for treatment’s sake.” As treatment generally entails greater expense than “dig ‘n haul,” the belief is that the amended rules will result in remedy cost savings. Some cost savings may result, but those savings may have been available under the existing rules (via the balancing factors).

Large Business

There are no direct fiscal impacts on large businesses. Some large businesses are more sophisticated in cleanup practices and may use excavation and off-site disposal more frequently than they do under the current rules. Still, if the RP elects to leave contaminants behind (below the “hot spot” level but above the “acceptable risk” level), the cost of institutional controls and/or lost land value may result in little long-term cost savings. The waste management industry may see an increase in tipping fees, but such increases are speculative.

Local Governments

There are no direct fiscal impacts on local government. If local government is in the role of a Responsible Party, it will be able to use “dig ‘n haul” as would private industry. If local government is in the role of affected party, local government may desire more treatment and less excavation and fewer institutional controls since contamination left in place could present future problems to the jurisdiction (e.g., possible migration to municipal well fields, difficulty in maintaining utility easements, difficulty in developing property that may have higher exposures). Either cost savings as an RP or additional costs as an affected party are speculative.

State Agencies

- DEQ

There will be no increase or decrease in FTE's with this rule change. The process for evaluation will remain the same and any increase in demand for oversight is speculative.

There could be an increase in revenues from the state’s share of tipping fees. ECD would be reluctant to forecast any specific amount since excavation and off-site disposal have been available remedies under the existing rule.

There are no new expenses in connection with this rule change. ECD staff will continue to perform the balancing test and recommend the remedy that scores the best.

- Other Agencies

Any impact on other agencies would be quite attenuated. While “dig ‘n haul” remedies often use “institutional controls” (IC) for residual contamination, these ICs are unlikely to have any impact that differs from the existing rules.

Assumptions

This analysis assumes that excavation and off-site disposal is used as the recommended remedy only at soil hot spots and only when the totality of the balancing factors indicate that “dig ‘n haul” is the most cost-effective measure. Since these rules remove the “higher cost threshold” that treatment formerly held, we anticipate a slight increase in excavation and off-site disposal, but we cannot project those increased uses or remedy cost savings.

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. If housing were to be developed on a “brownfield,” the cost of remediation may affect the cost of such housing, but the proposed rule changes will have a minimal impact on those costs.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Environmental Cleanup Rule Amendments (“Hot Spots”)

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

These rules allow the use of excavation and off-site disposal as the remedy for soil “hot spots” on the same cost basis as treatment. All remedies, whether for “hot spots” or not are subject to five balancing criteria: effectiveness, long-term reliability, implementability, implementation risk, and cost reasonableness. Under the existing rules, treatment enjoyed a “higher cost threshold” and thus was the “preferred” remedy for “hot spots.” The amended rules places cost on an equal basis between excavation and off-site disposal and treatment.

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 No

a. If yes, identify existing program/rule/activity:

Not Applicable

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? Yes No (if no, explain):

Not Applicable

c. If no, apply the following criteria to the proposed rules.

In the last update of the DEQ State Agency Coordination Program, DEQ evaluated the agency’s remedial action authorities and programs. Given the overriding need to base decisions on public health and safety criteria, DEQ determined that the program did not meet the Department of Land Conservation and Development’s (DLCDD’s) criteria to be a program that “significantly affects” land use. We believe these narrow amendments to the environmental cleanup rules are also outside the State Agency Coordination (SAC) Program. These rule amendments are minor changes to the overall cleanup rules and apply only to the remedy at soil “hot spots.” While cleanup rules may look to land use as a guide to potential exposures in the risk assessment process, the cleanup itself does not affect land use.

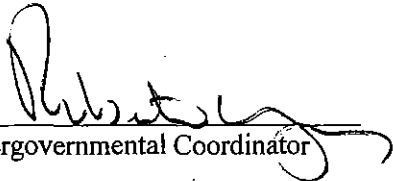
In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

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 Coordinator

4/13/00
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?**

No. The state environmental cleanup program is not a delegated program, and the state cleanup standards are not changed by this rule change. While the federal Superfund has a “preference for treatment,” it does not address “hot spots” and uses a similar, but different, set of balancing factors.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

The federal Superfund cleanup standards are based on risk assessments for both human health and ecological risk. Oregon’s standards are derived in the same manner although there are arguable minor differences in the standards. The proposed rules do nothing to alter the standards or their relative stringency.

- 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?**

These proposed rules address the use of excavation and off-site disposal for soil contamination “hot spots.” The existing rules have a “preference for treatment” based on a “higher cost threshold.” Industry has argued this preference for treatment is “treatment for treatment’s sake.” The Department disagrees, but the proposed rules place excavation and off-site disposal on an equal cost basis with treatment and should allay any concern that treatment is required where it is not warranted.

- 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?**

The rules may allow the use of excavation and off-site disposal as the remedy at soil hot spots. In general, excavation may be a less costly way to achieve protective levels. Since there is no longer a “higher cost threshold” for treatment, it may lead to more excavation and leaving more contamination behind at lower concentrations. There is the possibility, however remote, that future standards could be more stringent and require additional remediation. However, institutional controls are normally in place so future remediation is unlikely.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No. There are no pending federal rule changes or deadlines that would affect these rules.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Yes. The proposed rules retain the “balancing factors” so remedies can be compared and the most cost-effective remedy selected.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Yes. In essence, these amendments “level the playing field” when comparing the cost of excavation and off-site disposal with the cost of treatment.

8. Would others face increased costs if a more stringent rule is not enacted?

The proposed rule is unlikely to shift costs to others. If a Responsible Party elects to use excavation and off-site disposal as the remedy, only that individual RP will suffer any detriment if the remediation is ineffective. For example, if an RP excavates a “hot spot,” caps remaining contamination, and imposes institutional controls, only that individual RP will suffer any detriment if she later elects to use the property in a manner that creates more potential exposures. If that new use were to happen, the Department may require additional remediation.

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?

The "balancing factors" and the rules on "hot spots" differ from the federal Superfund. As noted earlier, Oregon's cleanup law is not a delegated federal program, and these proposed rules do not alter the existing relationship between the two programs.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes. Excavation and off-site disposal is sometimes the best, albeit simple, remedial technology.

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. Excavation and off-site disposal may be the most cost-effective remediation. To the extent that the existing rules unnecessarily skewed remediation toward treatment, these amendments may provide a correction.

State of Oregon
Department of Environmental Quality

Memorandum

Date: April 24, 2000
To: Interested and Affected Public
Subject: Rulemaking Proposal and Rulemaking Statements

HB 3616, enacted as Chap. 740 Oregon Laws 1999, amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil "hot spots" of contamination. DEQ's existing rules, OAR 340-122-070, 085, and 090 has a preference only for treatment of "hot spots." These rules must be changed to conform with law as, by definition, "treatment" does not include "excavation and off-site disposal."

This memorandum contains information on a proposal by the Department of Environmental Quality (Department) to adopt new rules/rule amendments regarding the use of excavation and off-site disposal as a preferred remedy for soil "hot spots" of contamination. 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 amend OAR 340-122-070, 085, and 090 to allow the use of excavation and off-site disposal on the same cost basis as treatment when remediating soil hot spots of contamination.

The Department has the statutory authority to address this issue under ORS 465.400 and the applicable provisions of ORS 183.310 to 183.550. These rules implement ORS 465.315 as amended.

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, 340-122-070, 085, and 090.
- Attachment E Implementation plan.

Attachment B-5

Attachments F –H Additional attachments may be a part of the final report.

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: May 25, 2000
Time: 4:30
Place: DEQ Headquarters, Room 3A
811 SW 6th Ave.
Portland, OR 97204

Deadline for submittal of Written Comments: May 31, 2000

A DEQ staff person from outside the Environmental Cleanup Division 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: Brooks Koenig, 811 S.W. 6th Avenue, Portland, Oregon 97204.

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 are 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 which 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.

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 July 13 – 14, 2000. 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?

HB 3616, enacted as Chap. 740 Oregon Laws 1999, amended ORS 465.315 to explicitly allow excavation and off-site disposal as a preferred remedy for soil “hot spots.” DEQ’s existing rules, OAR 340-122-070, 085, and 090 has a preference only for treatment of “hot spots.”

How was the rule developed?

The Environmental Cleanup Division convened the Environmental Cleanup Advisory Committee (ECAC) in October 1999. Staff prepared draft rules that were responsive to the amended law and engaged the advisory committee in discussion of the rules at the October, December, (1999) and March, 2000 meetings. Consensus was reached at the March meeting on the proposed rules.

Copies of the documents relied upon (HB 3616, enacted as Chap. 740 Oregon Laws 1999 and existing rules 340-122-070, 085, and 090) 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 Brooks Koenig at (503) 229-6801 for times when the documents are available for review.

Whom do these rules affect including the public, regulated community or other agencies, and how does it affect these groups?

These rules affect Responsible Parties (RPs) who are conducting remedial actions where there are “hot spots” of contamination in the soil. The rules are rather narrow amendments to existing rules which may result in a cost savings to the responsible parties. The level of protection to the public is not changed.

How will the rule be implemented?

The rules require no special implementation measures. DEQ staff already apply the balancing factors of OAR 340-122-090 (effectiveness, long-term reliability, implementability, implementation risk, and reasonableness of cost). The rules modify slightly the analysis that is performed as excavation and off-site disposal will now have the same cost basis as treatment.

Are there time constraints?

No. The statute can be applied now, but reconciling the rules with the statute should occur as soon as possible.

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:

Brooks Koenig
Environmental Cleanup Division, 8th Fl.
811 SW 6th Ave.
Portland, OR 97204


(503) 229-6801
(800) 452-4011 (Agency Toll-free in Oregon)
(503) 229-6993 (Agency TTY number)

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: May 31, 2000

To: Environmental Quality Commission
From: Brooks Koenig 
Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: May 25, 2000 beginning at 4:30 p.m.
Hearing Location: DEQ Headquarters, Room 3A

Title of Proposal: Environmental Cleanup Rule Amendments

The rulemaking hearing on the above titled proposal was convened at 4:30 p.m. No people were present, but witness registration forms were available if anyone wished to present testimony. Signs were posted that the hearing would be recorded and that smoking was not permitted.

No one attended the meeting and no one submitted written testimony.

Summary of Oral Testimony

None

Written Testimony

None

There was no testimony and the hearing was closed at 5:30 p.m. after no one attended the opening hour.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Amending Environmental Cleanup Rules (“Hot spots”)

Rule Implementation Plan

Summary of the Proposed Rule

Chapter 740 of Oregon Laws 1999 amended ORS 465.315 regarding the remediation of soil “hot spots.” Existing rules 340-122-070, 085, and 090 conflict with the new statute. The amendments to the rules will make them consistent with the law and allow a Responsible Party (RP) to use excavation and off-site disposal for the remediation of contamination hot spots. The RP and DEQ will still be required to apply “balancing factors” before recommending or selecting the remedy, but the new rules place excavation and off-site disposal on an equal cost basis with treatment. Prior to this rule change, treatment was the preferred remedy and enjoyed a “higher threshold” for cost when compared to other non-treatment remedies.

Proposed Effective Date of the Rule

July 13, 2000 (Date of adoption by EQC)

Proposal for Notification of Affected Persons

As noted above, these rule changes affect a narrow subset of Responsible Parties who are performing a cleanup of contaminated soil “hot spots.” When performing the “balancing test” the RP and the Department will look at the cost reasonableness of excavation and off-site disposal on the same basis as treatment. Although this narrow subset will be the only directly affected parties, the Department will mail out the rule changes to all who have requested information on Environmental Cleanup Rules; we will post changes on our Web-site; we will modify our guidance (also on Web-site); and we will inform parties as they enter the Voluntary Cleanup Program (VCP).

Proposed Implementing Actions

The primary change stemming from the rules is the application of the balancing factors. While all five balancing factors apply to all remedial actions, these new rules focus on cost reasonableness of excavation and off-site disposal as contrasted with treatment.

A secondary change will involve the factor of implementation risk. Although excavation and off-site disposal have always looked at the transport risk of the remedy, the new rules are explicit as to examining the method, route, and distance for transportation of the contaminants to available disposal facilities.

Proposed Training/Assistance Actions

The primary training will be the notice of the rule adoption. Since the statute has been in effect since July, 1999, staff has been applying the law. The rule changes make the rules consistent with the law and provide some additional clarity as to when to apply the “cost reasonableness” factor. As projects proceed through the cleanup process, staff will be performing the same general, overall analysis as they have in the past.

Environmental Quality Commission

- Rule Adoption Item
 Action Item
 Information Item

Agenda Item D
July 14, 2000 Meeting

Title:

Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAPs).

Summary:

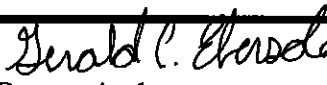
EPA's technology standards for the control of hazardous air pollutants are termed National Emission Standards for Hazardous Air Pollutants, or NESHAPs. These standards set emission standards for 188 toxic chemicals, compounds and groups of compounds emitted from approximately 173 categories of emission sources. EPA's timeline for these new standards began in 1992 and will extend through the year 2005.

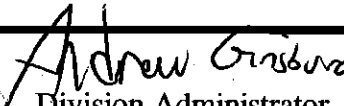
As required under Oregon's federally approved Title V Operating Permit Program, the Department must adopt new and revise existing NESHAP standards. This proposed rulemaking fulfills that obligation, and updates Oregon's Hazardous Air Pollutant Program standards. This assures that the Department, rather than EPA, will implement the applicable NESHAP standards in the state of Oregon.

This rulemaking also updates the list of toxic and flammable substances regulated under EPA's Accidental Release Prevention program.

Department Recommendation:

The Department recommends an EQC adoption of the rulemaking as proposed. The Department proposes an adoption by reference of new NESHAP standards listed in this rulemaking, an update adoption of all existing NESHAP standards, and adoption of changes to Table 3 of Division 244.


Report Author


Division Administrator

Director 

State of Oregon
Department of Environmental Quality Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh
Subject: Agenda Item D, Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAPs), EQC Meeting July 14, 2000

Background

On March 15, 2000, the Director authorized the Air Quality Division to proceed to a rulemaking hearing on proposed rules which would update the Department's hazardous air pollutant rules and table of toxic and flammable substances regulated under EPA's Accidental Release Prevention Program.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on April 1, 2000. 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 March 17, 2000.

A Public Hearing was held April 25, 2000 with Mr. Gregg Lande serving as Presiding Officer. Written comment was received through May 2, 2000. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing and lists all comments received and the Department's response for this rulemaking.

Key Words & Acronyms

NESHAP – National Emission Standards for Hazardous Air Pollutants

MACT – Maximum Achievable Control Technology – The technology required by the NESHAP

HAP – Hazardous Air Pollutant

Major HAP Source – Any stationary source or group of stationary sources that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year of any HAP or 25 tons per year or more of any combination of HAPs

Area HAP Source – Any stationary source of HAPs that is not a major source

ACDP – Air Contaminant Discharge Permit – Permits for area sources of air pollution

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

Memo To: Environmental Quality Commission

Agenda Item D, Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAPs), EQC Meeting July 14, 2000

Page 2

Issue this Proposed Rulemaking Action is Intended to Address

As required under Oregon's federally approved Title V Operating Permit Program, the Department must adopt new and revise existing NESHAP standards. This proposed rulemaking fulfills that obligation, and updates Oregon's Hazardous Air Pollutant Program standards. This assures that the Department, rather than EPA, will implement the applicable NESHAP standards in the state of Oregon.

Relationship to Federal and Adjacent State Rules

The annual adoption of the new NESHAPs, and revising the existing NESHAPs are by reference. For this rulemaking, state rules are no more or less stringent than the federal rules.

Authority to Address the Issue

The Commission has the statutory authority to adopt these proposed rules under ORS 468.015, 468.095, 468A.025, 468A.310.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The proposed rules were developed by Department staff based on federally promulgated rules, and in accordance with Oregon's federally approved Title V program. No advisory committee was convened for this rulemaking.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

This Rulemaking proposal was to:

- Adopt new NESHAPs for a number of source and equipment categories;
- Update Oregon's hazardous air pollutant regulations by adopting changes to the federal NESHAP rules through May 2, 2000;
- Update the list of toxic and flammable substances regulated under EPA's Accidental Release Prevention program.

The rulemaking proposal is more thoroughly described in Attachment B-5. Attachment B-6 contains a list of NESHAPs that are being adopted, and the number of sources in Oregon subject to each NESHAP.

Memo To: Environmental Quality Commission

Agenda Item D, Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAPs), EQC Meeting July 14, 2000

Page 3

Summary of Significant Public Comment and Changes Proposed in Response

The only comment received was from Department staff noting an error in the cover memo (see Attachment B-5). The cover memo incorrectly listed Hazardous Waste *Production* instead of Hazardous Waste *Combustors* as a source category for which a new NESHAP was to be adopted. The error was corrected.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

The NESHAP standards for affected source categories will be placed in Title V permits for major sources, and Air Contaminant Discharge (ACDP) permits for area sources. These standards are initially placed in Title V or ACDP permit on permit issuance. If the permit was issued prior to adoption of the NESHAP standards and there are more than three years until the permit renewal date, the permit must be "reopened" to incorporate the standards. Otherwise, the NESHAP standards are incorporated upon renewal of the permit. Training will be provided to permitting staff on these new and revised standards.

Recommendation for Commission Action

It is recommended that the Commission adopt the rules/rule amendments regarding the annual update of NESHAP standards and the revised table of toxic and flammable substances regulated under EPA's Accidental Release Prevention program, as presented in Attachment A of the Department Staff Report.

Attachments

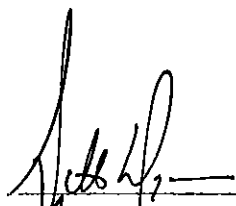
- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
 - 1. Legal Notice of Hearing
 - 2. Fiscal and Economic Impact Statement
 - 3. Land Use Evaluation Statement
 - 4. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
 - 5. Cover Memorandum from Public Notice
 - 6. Table of new and revised NESHAPs covered in this rulemaking
- C. Presiding Officer's Report on Public Hearing
- D. Rule Implementation Plan

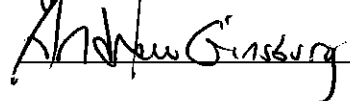
Memo To: Environmental Quality Commission
**Agenda Item D, Annual Update: Incorporation of National Emission Standards for Hazardous Air
Pollutants (NESHAPs), EQC Meeting July 14, 2000**
Page 4

Approved:

Section:

Division:





Report Prepared By: Jerry Ebersole
Phone: (503) 229-6974
Date Prepared: May 3, 2000

Attachment A

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

340-244-0220

Federal Regulations Adopted by Reference

- (1) Except as provided in section (2) of this rule, **40 CFR Part 61, Subparts A through F, I, J, L, N through P, V and Y through FF (July 1, 2000~~1999~~) and 40 CFR Part 63, Subparts A, F, G, H, I, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, OO, PP, QQ, RR, SS, TT, UU, VV, WW, YY, CCC, DDD, EEE, GGG, HHH, III, and JJJ, LLL, MMM, NNN, OOO, PPP, TTT, VVV and XXX (July 1, 2000~~1999~~)** are by reference adopted and incorporated herein.
- (2) Where "Administrator" or "EPA" appears in **40 CFR Part 61 or 63**, "Department" shall be substituted, except in any section of **40 CFR Part 61 or 63**, for which a federal rule or delegation specifically indicates that authority will not be delegated to the state.
- (3) **40 CFR Part 61** Subparts adopted by this rule are titled as follows:
 - (a) Subpart A - General Provisions;
 - (b) Subpart B - Radon Emissions from Underground Uranium Mines;
 - (c) Subpart C - Beryllium;
 - (d) Subpart D - Beryllium Rocket Motor Firing;
 - (e) Subpart E - Mercury;
 - (f) Subpart F - Vinyl Chloride;
 - (g) Subpart I - Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensee and Not Covered by Subpart H;
 - (h) Subpart L - Benzene Emissions From Coke By-Product Recovery Plants;
 - (i) Subpart N - Inorganic Arsenic Emissions From Glass Manufacturing Plants;
 - (j) Subpart O - Inorganic Arsenic Emissions From Primary Copper Smelters;
 - (k) Subpart P - Inorganic Arsenic Emissions From Arsenic Trioxide and Metal Arsenic Facilities;
 - (l) Subpart V - Equipment Leaks (Fugitive Emission Sources);
 - (m) Subpart Y - Benzene Emissions From Benzene Storage Vessels; and
 - (n) Subpart FF - Benzene Waste Operations.
- (4) **40 CFR Part 63** Subparts adopted by this rule are titled as follows:
 - (a) Subpart A - General Provisions;
 - (b) Subpart F - SOCFMI;
 - (c) Subpart G - SOCFMI - Process Vents, Storage Vessels, Transfer Operations;
 - (d) Subpart H - SOCFMI - Equipment Leaks;
 - (e) Subpart I - Certain Processes Subject to the Negotiated Regulation for Equipment Leaks;
 - (f) Subpart ~~LI~~ - Coke Oven Batteries;
 - (g) Subpart M - Dry Cleaning Facilities using Perchloroethylene;
 - (h) Subpart N - Hard and Decorative Electroplating and Anodizing;
 - (i) Subpart O - Ethylene Oxide Sterilization;
 - (j) Subpart Q - Industrial Process Cooling Towers;
 - (k) Subpart R - Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations);
 - (l) Subpart S - Pulp and Paper Industry;
 - (m) Subpart T - Halogenated Solvent Cleaning;

- (n) Subpart U - Group I Polymers and Resins;
- (o) Subpart W - Epoxy Resins and Non-Nylon Polyamides Production;
- (p) Subpart X - Secondary Lead Smelting;
- (q) Subpart Y - Marine Tank Vessel Loading Operations;
- (r) Subpart AA - Phosphoric Acid Manufacturing Plants; _
- (s) Subpart BB - Phosphate Fertilizer Production Plants;
- (t) Subpart CC - Petroleum Refineries;
- (u) Subpart DD - Off-Site Waste and Recovery Operations;
- (v) Subpart EE - Magnetic Tape Manufacturing Operations;
- (w) Subpart GG - Aerospace Manufacturing Operations;
- (x) Subpart HH - Oil and Natural Gas Production Facilities;
- (y) Subpart II - Shipbuilding and Ship Repair (Surface Coating);
- (z) Subpart JJ - Wood Furniture Manufacturing Operations;
- (aa) Subpart KK - Printing and Publishing Industry;
- (bb) Subpart LL - Primary Aluminum Reduction Plants;
- (cc) Subpart OO - Tanks - Level 1;
- (dd) Subpart PP - Containers;
- (ee) Subpart QQ - Surface Impoundments;
- (ff) Subpart RR - Individual Drain Systems;
- (gg) Subpart SS - Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process; _
- (hh) Subpart TT - Equipment Leaks - Control Level 1;
- (ii) Subpart UU - Equipment Leaks - Control Level 2 Standards;
- (jj) Subpart VV - Oil-Water Separators and Organic-Water Separators;
- (kk) Subpart WW - Storage Vessels (Tanks) - Control Level 2;
- (ll) Subpart YY - Generic Maximum Achievable Control Technology Standards;
- (mm) Subpart CCC - Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants;
- (nn) Subpart DDD - Mineral Wool Production;
- (oo) Subpart EEE - Hazardous Waste Combustors;
- (pp) Subpart GGG - Pharmaceuticals Production;
- (qq) Subpart HHH - Natural Gas Transmission and Storage Facilities;
- (rr) Subpart III - Flexible Polyurethane Foam Production;
- (s) Subpart JJJ - Group IV Polymers and Resins;-
- (t) Subpart LLL - Portland Cement Manufacturing Facilities;
- (uu) Subpart MMM - Pesticide Active Ingredient Production;
- (vv) Subpart NNN - Wool Fiberglass Manufacturing;
- (ww) Subpart OOO - Manufacture of Amino/Phenolic Resins;
- (xx) Subpart PPP - Polyether Polyols Production;
- (yy) Subpart TTT - Primary Lead Smelting;
- (zz) Subpart VVV - Publicly Owned Treatment Works;
- (aaa) Subpart XXX - Manufacturing of Nutritional Yeast.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: [DEQ 16-1995, f. & cert. ef. 6-21-95; DEQ 28-1996, f. & cert. ef. 12-19-96; DEQ 18-1998, f. & cert. ef. 10-5-98]; [DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 32-1994, f. & cert. ef. 12-22-94]; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0510, 340-032-5520

340-244-0230
Accidental Release Prevention

- (1) List. For purposes of this rule the Commission adopts by reference the List of Regulated Substances and Thresholds for Accidental Release Prevention **40 CFR Part 68 Subpart F (July 1, ~~2000~~1999)** which includes the Department of Transportation Division 1.1 Explosive Standards List (49 CFR 172.101). (**Table 3**).
- (2) Risk Management Plan. The owner or operator of a stationary source at which a substance listed in **Table 3** is present in greater than the threshold quantity shall prepare and implement a written risk management plan to detect and prevent or minimize accidental releases, and to provide a prompt emergency response to any such releases in order to protect human health and the environment.
- (3) Compliance. The owner or operator of a stationary source required to prepare and implement a risk management plan under section (2) of this rule shall:
 - (a) Register the risk management plan with the EPA;
 - (b) Submit copies of the risk management plan to the U.S. Chemical Safety and Hazard Identification Board, the Department, and the Oregon Office of Emergency Management; and
 - (c) Submit as part of the compliance certification required under OAR 340-218-0080, annual certification to the Department that the risk management plan is being properly implemented.
- (4) Compliance schedule:
 - (a) The owner or operator of a stationary source shall prepare and implement a risk management plan under section (2) of this rule according to the schedule promulgated by the EPA;
 - (b) The owner or operator of a stationary source that adds a listed substance or exceeds the threshold shall prepare and implement a risk management plan according to the schedule promulgated by the EPA.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468.020 & ORS 468A.310

Stats. Implemented: ORS 468A.025

Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 18-1998, f. & cert. ef. 10-5-98; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-5400

TABLE 3
LIST OF REGULATED TOXIC AND FLAMMABLE SUBSTANCES
FOR PURPOSES OF ACCIDENTAL RELEASE PREVENTION
(OAR 340-244-0230)

CAS Number	Part A - Regulated Toxic Substances Chemical Name	Threshold Quantity (lbs.)
107-02-8	Acrolein [2-Propenal]	5,000
107-13-1	Acrylonitrile [2-Propenenitrile]	20,000
814-68-6	Acrylyl chloride [2-Propenoyl chloride]	5,000
107-18-6	Allyl alcohol [2-Propen-1-ol]	15,000
107-11-9	Allylamine [2-Propen-1-amine]	10,000
7664-41-7	Ammonia (anhydrous)	10,000
7664-41-7	Ammonia (concentration 20% or greater)	20,000
7784-34-1	Arsenous trichloride	15,000
7784-42-1	Arsine	1,000
10294-34-5	Boron trichloride [Borane, trichloro-]	5,000
7637-07-2	Boron trifluoride [Borane, trifluoro-]	5,000
353-42-4	Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro[oxybis[metane]]-, T-4-	15,000
7726-95-6	Bromine	10,000
75-15-0	Carbon disulfide	20,000
7782-50-5	Chlorine	2,500
10049-04-4	Chlorine [Chlorine oxide (ClO ₂)]	1,000
67-66-3	Chloroform [Methane, trichloro-]	20,000
542-88-1	Chloromethyl ether [Methane, oxybis[chloro-]]	1,000
107-30-2	Chloromethyl methyl ether [Methane, chloromethoxy-]	5,000
4170-30-3	Crotonaldehyde [2-Butenal]	20,000
123-73-9	Crotonaldehyde, (E)- [2-Butenal, (E)-]	20,000
506-77-4	Cyanogen chloride	10,000
108-91-8	Cyclohexylamine [Cyclohexanamine]	15,000
19287-45-7	Diborane	2,500
75-78-5	Dimethyldichlorosilane [Silane, dichlorodimethyl-]	5,000
57-14-7	1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	15,000
106-89-8	Epichlorohydrin [Oxirane, (chloromethyl)-]	20,000
107-15-3	Ethylenediamine [1,2-Ethanediamine]	20,000
151-56-4	Ethyleneimine [Aziridine]	10,000
75-21-8	Ethylene oxide [Oxirane]	10,000
7782-41-4	Fluorine	1,000
50-00-0	Formaldehyde (solution)	15,000
110-00-9	Furan	5,000
302-01-2	Hydrazine	15,000
7647-01-0	Hydrochloric acid (concentration 37% or greater)	15,000
74-90-8	Hydrocyanic acid	2,500
7647-01-0	Hydrogen chloride (anhydrous) [Hydrochloric acid]	5,000
7664-39-3	Hydrogen fluoride/Hydrofluoric acid (concentration 50% or greater) [Hydrofluoric acid]	1,000

CAS Number	Part A - Regulated Toxic Substances Chemical Name	Threshold Quantity (lbs.)
7783-39-3	Hydrogen selenide	500
7783-06-4	Hydrogen sulfide	10,000
13463-40-6	Iron, pentacarbonyl- [Iron carbonyl (Fe ₅ CO ₅), (TB-5-11)-]	2,500
78-82-0	Isobutyronitrile [Propanenitrile, 2-methyl-]	20,000
108-23-6	Isopropyl chloroformate [Carbonochloric acid, 1-methylethyl ester]	15,000
126-98-7	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	10,000
74-87-3	Methyl chloride [Methane, chloro-]	10,000
79-22-1	Methyl chloroformate [Carbonochloric acid, methylester]	5,000
60-34-4	Methyl hydrazine [Hydrazine, methyl-]	15,000
624-83-9	Methyl isocyanate [Methane, isocyanato-]	10,000
74-93-1	Methyl mercaptan [Methanethiol]	10,000
556-64-9	Methyl thiocyanate [Thiocyanic acid, methyl ester]	20,000
75-79-6	Methyltrichlorosilane [Silane, trichloromethyl-]	5,000
13463-39-3	Nickel carbonyl	1,000
7697-37-2	Nitric acid (concentration 80% or greater)	15,000
10102-43-9	Nitric oxide [Nitrogen oxide (NO)]	10,000
8014-95-7	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide] ¹	10,000
79-21-0	Peracetic acid [Ethaneperoxoic acid]	10,000
594-42-3	Perchloromethylmercaptan [Methanesulfenyl chloride, trichloro-]	10,000
75-44-5	Phosgene [Carbonic dichloride]	500
7803-51-2	Phosphine	5,000
10025-87-3	Phosphorus oxychloride [Phosphoryl chloride]	5,000
7719-12-2	Phosphorus trichloride [Phosphorus trichloride]	15,000
110-89-4	Piperidine	15,000
107-12-0	Propionitrile [Propanenitrile]	10,000
109-61-5	Propyl chloroformate [Carbonochloric acid, propylester]	15,000
75-55-8	1,2-Propylenimine [Aziridine, 2-methyl-]	10,000
75-56-9	Propylene oxide [Oxirane, methyl-]	10,000
7446-09-5	Sulfur dioxide (anhydrous)	5,000
7783-60-0	Sulfur tetrafluoride [Sulfur fluoride (SF ₄), (T-4)-]	2,500
7446-11-9	Sulfur trioxide	10,000
75-74-1	Tetramethyllead [Plumbane, tetramethyl-]	10,000
509-14-8	Tetranitromethane [Methane, tetranitro-]	10,000
7550-45-0	Titanium tetrachloride [Titanium chloride (TiCl ₄) (T-4)-]	2,500
584-84-9	Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-] ¹	10,000
91-08-7	Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-] ¹	10,000
26471-62-5	Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-] ¹	10,000
75-77-4	Trimethylchlorosilane [Silane, chlorotrimethyl-]	10,000
108-05-4	Vinyl acetate monomer [Acetic acid ethenyl ester]	15,000

¹ The mixture exemption in 40 CFR Part 68.115(b)(1) does not apply to the substance.

CAS Number	Part B - Regulated Flammable Substances ¹ Chemical Name	Threshold Quantity (lbs.)
75-07-0	Acetaldehyde	10,000
74-86-2	Acetylene [Ethyne]	10,000
598-73-2	Bromotrifluorethylene [Ethene, bromotrifluoro-]	10,000
106-99-0	1,3-Butadiene	10,000
106-97-8	Butane	10,000
106-98-9	1-Butene	10,000
107-01-7	2-Butene	10,000
25167-67-3	Butene	10,000
590-18-1	2-Butene-cis	10,000
624-64-6	2-Butene-trans [2-Butene, (E)]	10,000
463-58-1	Carbon oxysulfide [Carbon oxide sulfide (COS)]	10,000
7791-21-1	Chlorine monoxide [Chlorine oxide]	10,000
557-98-2	2-Chloropropylene [1-Propene, 2-chloro-]	10,000
590-21-6	1-Chloropropylene [1-Propene, 1-chloro-]	10,000
460-19-5	Cyanogen [Ethanedinitrile]	10,000
75-19-4	Cyclopropane	10,000
4109-96-0	Dichlorosilane [Silane, dichloro-]	10,000
75-37-6	Difluoroethane [Ethane, 1,1-difluoro-]	10,000
124-40-3	Dimethylamine [Methanamine, N-methyl-]	10,000
463-82-1	2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	10,000
84-84-0	Ethane	10,000
107-00-6	Ethyl acetylene [1-Butyne]	10,000
75-04-7	Ethylamine [Ethanamine]	10,000
75-00-3	Ethyl chloride [Ethane, chloro-]	10,000
74-85-1	Ethylene [Ethene]	10,000
60-29-7	Ethyl ether [Ethane, 1,1'-oxybis-]	10,000
75-08-1	Ethyl mercaptan [Ethanethiol]	10,000
109-95-5	Ethyl nitrite [Nitrous acid, ethyl ester]	10,000
1333-74-0	Hydrogen	10,000
75-28-5	Isobutane [Propane, 2-methyl]	10,000
78-78-4	Isopentane [Butane, 2-methyl-]	10,000
78-79-5	Isoprene [1,3-Butadiene, 2-methyl-]	10,000
75-31-0	Isopropylamine [2-Propanamine]	10,000
75-29-6	Isopropyl chloride [Propane, 2-chloro-]	10,000
74-82-8	Methane	10,000
74-89-5	Methylamine [Methanamine]	10,000
563-45-1	3-Methyl-1-butene	10,000
563-46-2	2-Methyl-1-butene	10,000
115-10-6	Methyl ether [Methane, oxybis-]	10,000
107-31-3	Methyl formate [Formic acid, methyl ester]	10,000
115-11-7	Methylpropene [1-Propene, 2-methyl-]	10,000
504-60-9	1,3-Pentadiene	10,000
109-66-0	Pentane	10,000
109-67-1	1-Pentene	10,000
646-04-8	2-Pentene, (E)-	10,000
627-20-3	2-Pentene, (Z)-	10,000
463-49-0	Propadiene [1,2-Propadiene]	10,000
74-98-6	Propane	10,000
115-07-1	Propylene [1-Propene]	10,000
74-99-7	Propyne [1-Propyne]	10,000
7803-62-5	Silane	10,000

CAS Number	Part B - Regulated Flammable Substances ¹ Chemical Name	Threshold Quantity (lbs.)
116-14-3	Tetrafluoroethylene [Ethene, tetrafluoro-]	10,000
75-76-3	Tetramethylsilane [Silane, tetramethyl-]	10,000
10025-78-2	Trichlorosilane [Silane, trichloro-]	10,000
79-38-9	Trifluorochloroethylene [Ethene, chlorotrifluoro-]	10,000
75-50-3	Trimethylamine [Methanamine, N,N-dimethyl-]	10,000
689-97-4	Vinyl acetate [1-Buten-3-yne]	10,000
75-01-4	Vinyl chloride [Ethene, chloro-]	10,000
109-92-2	Vinyl ethyl ether [Ethene, ethoxy-]	10,000
75-02-5	Vinyl fluoride [Ethene, fluoro-]	10,000
75-35-4	Vinylidene chloride [Ethene, 1,1-dichloro-]	10,000
75-38-7	Vinylidene fluoride [Ethene, 1,1-difluoro-]	10,000
107-25-5	Vinyl methyl ether [Ethene, methoxy-]	10,000

¹ A flammable substance when used as a fuel or held for sale as a fuel at a retail facility is excluded from all provisions of 40 CFR Part 68 (see 40 CFR Part 68.126).

Stat. Auth.: ORS 468.020 & 468A.310

Stat. Implemented: ORS 468A.025

Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 24-1994, f. & ef. 10-28-94

Attachment B-1

Secretary of State

NOTICE OF PROPOSED RULEMAKING HEARING

A Statement of Need and Fiscal Impact accompanies this form.

DEQ – Air Quality
Agency and Division

Chapter 340
Administrative Rules Chapter Number

Susan M. Greco
Rules Coordinator

(503) 229-5213
Telephone

811 SW 6th Avenue, Portland, OR 97204

Address

April 25, 2000

3:00 p.m.

811 SW 6th Avenue, Portland

Gregg Lande

Hearing Date

Time

Location

Hearings Officer

Are auxiliary aids for persons with disabilities available upon advance request?

Yes No

RULEMAKING ACTION

AMEND:

340-244-0220, 340-244-0230

Stat. Auth.:

ORS 468.020 & 468a.025

Stats. Implemented:

ORS 468.020 & 468a.025

RULE SUMMARY

The Department of Environmental Quality is proposing to amend its rules to adopt new federal rules and rule amendments regarding hazardous air pollutants. These rules are commonly referred to as National Emission Standards for Hazardous Air Pollutants. Sources are obligated to comply with the federal NESHAPs regardless of the Department's adoption of these regulations.

May 2, 2000

Last Day for Public Comment

Authorized Signer and Date

Attachment B-2

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Major and Area Source NESHAP Adoption

Fiscal and Economic Impact Statement

Introduction

This proposal

- Adopts new NESHAPs for a number of source and equipment categories;
- Updates Oregon's hazardous air pollutant regulations by adopting changes to the federal NESHAP rules through May 2, 2000.

Sources are obligated to comply with the federal NESHAPs regardless of the Department's adoption of these regulations. The economic impact of the NESHAPs was assessed by EPA when they promulgated the standards.

This rulemaking does not establish new fees. The rulemaking adopts newly promulgated federal emission standards for major and area sources, and uses the existing fee authority for the assessment of fees for these source categories in OAR 340-216-0090 (ACDP) and 340-220-0030 through 340-220-0050 (TV Operating Permits).

General Public

There would be no known economic impact to the general public as a result of these proposed rules. The only costs to the general public would be possible pass-through costs to customers, but the cost is assumed to be negligible.

Small Business

Small businesses are typically area sources but can also be major sources of hazardous air pollutants. Except for drycleaners, area sources subject to a NESHAP are required to obtain an ACDP and pay existing ACDP fees. Table 1 of OAR 340-216-0090 describes the overall financial costs associated with the ACDP program, and lists the additional cost incurred for specific activity.

In particular, categories 73 and 74 of Table 1 describe the initial permit and annual inspection costs associated with the different types of NESHAP standards.

Implementing the NESHAPs through the Department's Title V Operating Permit Program for major sources will not add additional cost. The Department is simply implementing standards that are federal requirements. Major sources subject to the NESHAPs are already subject to Title V permit fees.

The Department does not foresee permitting additional sources because of this rulemaking.

Large Business

Large businesses are either area sources or major sources of hazardous air pollutants. Area sources subject to the NESHAP may be required to obtain an ACDP and pay existing ACDP fees. Table 1 of OAR 340-216-0090 describes the overall financial costs associated with the ACDP program, and lists the additional cost incurred for specific activity. In particular, categories 73 and 74 of Table 1 describe the initial permit and annual inspection costs associated with the different types of NESHAP standards.

Implementing the NESHAPs through the Department's Title V Operating Permit Program for major sources will not add additional cost. The Department is simply implementing standards that are federal requirements. Major sources subject to the NESHAPs are already subject to Title V permit fees.

The Department does not foresee permitting additional sources because of this rulemaking.

Local Governments

There is no known or projected fiscal or economic impact of these rules on local governments.

State Agencies

There is no known or projected fiscal or economic impact of this proposed rulemaking on state agencies. In particular, all associated fees or economic impacts of this proposed rulemaking have been previously considered and documented at the time of the Department's Title V permit program design; January, 1993. The Department anticipates insignificant additional revenue and only a minimal increase in workload as a result of this rulemaking.

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.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Major and Area Source NESHAP Adoption

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

This proposal:

- Adopts new NESHAPs for a number of source and equipment categories;
- Updates Oregon's hazardous air pollutant regulations by adopting changes to the federal NESHAP rules through May 2, 2000.

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 No

a. If yes, identify existing program/rule/activity:

The issuance of air permits has been deemed a DEQ Land Use program. The proposed NESHAPs for major source categories will be implemented through the Department's Title V Operating Permit Program and the NESHAPs for area source categories will be implemented through the Department's Air Contaminant Discharge Permit (ACDP) Program.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? Yes No (if no, explain):

Current procedures require local government to provide a land use compatibility determination before an air permit is issued or before approval of a Notice of Construction.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

N/A

- 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

Date

Attachment B-4

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Major and Area Source NESHAP Adoption

**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?**

Yes. The National Emission Standards for Hazardous Air Pollutant are proposed for adoption by reference. The Department is not proposing to differ from the federal rule.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

The regulations combine technology, work practices and material substitution. They allow the owner/operator discretion in selecting the particular combination necessary to maintain compliance.

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was the data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements.**

These federal requirements specifically address the control of hazardous air pollutants, which are of concern in Oregon. Data and information representative of human health and environmental effects of hazardous air pollutants and available emission control technology were considered in the federal process that established these rules.

- 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?**

N/A

5. Is there a timing issue that might justify changing the time frame for implementation of federal requirements?

No.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

N/A

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

N/A

8. Would others face increased costs if a more stringent rule is not enacted?

No.

9. Does the proposed requirements 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?

No.

10. Is demonstrated technology available to comply with the proposed requirement?

N/A

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

N/A

State of Oregon
Department of Environmental Quality

Memorandum

Date: March 21, 2000

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements -
Annual Update: Incorporation of National Emission Standards for Hazardous Air
Pollutants (NESHAPs)

This memorandum contains information on a proposal by the Department of Environmental Quality (DEQ) to adopt new rules/rule amendments regarding hazardous air pollutants. Pursuant to ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's intended action to adopt a rule.

This proposal:

- Adopts new NESHAPs for a number of source and equipment categories;
- Updates Oregon's hazardous air pollutant regulations by adopting changes to the federal NESHAP rules through May 2, 2000.

The Department has the statutory authority to address this issue under ORS 468.020 & 468A.025. This rulemaking does not affect the State Implementation Plan (SIP).

What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

- Attachment A NESHAPs list proposed for adoption.
- Attachment B The official statement describing the fiscal and economic impact of the proposed rule (required by ORS 183.335).
- Attachment C A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans.
- Attachment D Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.
- Attachment E The actual language of the proposed rule amendments to adopt and amend NESHAPs.

Hearing Process Details

The Department is conducting a public hearing at which comments will be accepted either orally or in writing¹. The hearing will be held as follows:

Date: April 25, 2000
Time: 3:00 p.m.
Place: DEQ Headquarters room 3A
811 SW 6th Avenue
Portland, OR 97204

Deadline for Submittal of Written Comments

You are invited to review these materials and present written comment on the proposed rule changes. Written comments can be presented at the hearing or to the Department any time prior to 5:00 p.m., May 2, 2000. Comments should be sent to:

Department of Environmental Quality
Attn: Mr. Jerry C. Ebersole
811 SW 6th Avenue, Portland, Oregon, 97204

Comments can also be hand delivered to the Department of Environmental Quality, 811 SW 6th Avenue, 11th Floor between 8:00 a.m. and 5:00 p.m., Monday through Friday.

In accordance with ORS 183.335(13), no comments can be accepted after the close of the comment period. If you want 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 allow for adequate review and evaluation.

Mr. Gregg Lande of the Department staff will be the Presiding Officer at the hearing.

¹ PLEASE NOTIFY DEQ ABOUT ANY SPECIAL PHYSICAL OR LANGUAGE ACCOMODATIONS YOU MAY NEED AS FAR IN ADVANCE OF THE HEARING AS POSSIBLE. TO MAKE THESE ARRANGEMENTS, PLEASE CONTACT DEQ PUBLIC AFFAIRS AT 1-800-452-4011 IN OREGON, OR 503-229-5317. PEOPLE WITH HEARING IMPAIRMENTS MAY CALL DEQ'S TDD NUMBER AT 503-229-6993.

What Happens After the Public Comment Period Closes

Following close of the public comment period, the Department will prepare a report that summarizes the comments received. The Environmental Quality Commission (EQC) will receive a copy of this 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 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 July 14, 2000.

The Department will ~~be~~ notify you 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 want to be appraised of this proceeding and receive a copy of the recommendation that is presented to the EQC for adoption, please request that your name be placed on the mailing list for this rulemaking proposal.

Background on Development of the Rulemaking Proposal

Why is there a need for the rule?

Under Oregon's Title V Operating Permit Program, the Department must adopt new and revise existing NESHAP standards. This proposed rulemaking fulfills that obligation, and updates Oregon's Hazardous Air Pollutant Program standards. This assures that the Department, rather than EPA, will implement the applicable NESHAP standards in the state of Oregon.

This proposed rulemaking adopts by reference new NESHAP standards for the following major source categories:

- Phosphoric Acid Manufacturing
- Phosphate Fertilizer Production
- Oil and Natural Gas Production
- Generic Maximum Achievable Control Technology (MACT)
 - ☐ Acetal Resins

- ☐ Hydrogen Fluoride
- ☐ Polycarbonates Production
- ☐ Acrylic/Modacrylic Production
- Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants
- Mineral Wool Production
- Pharmaceuticals Production
- Natural Gas Transmission and Storage Facilities
- Flexible Polyurethane Foam Production
- Pesticide Active Ingredient Production
- Hazardous Waste Combustors Production
- Portland Cement Manufacturing
- Wool Fiberglass Manufacturing
- Manufacture of Amino/Phenolic Resins
- Polyether Polyols Production
- Primary Lead Smelting
- Publicly Owned Treatment Works
- Ferroalloys Production: Ferromanganese and Silicomanganese Production

This rulemaking also adopts by reference federal NESHAP standards for the following area source categories:

- Hazardous Waste Combustors Production
- Portland Cement Manufacturing

In addition, this rulemaking adopts by reference federal National Emission Standards for the following equipment:

- Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
- Equipment Leaks – Control Level 1
- Equipment Leaks – Control Level 2
- Storage Vessels (Tanks) – Control Level 2

How was the rule developed?

This proposal fulfills a requirement under Oregon's federally approved Title V Operating Permit Program. An advisory committee was not convened because the Department believed no policy decisions were needed. This is because sources are obligated to comply with the federal NESHAPs regardless of the Department's adoption of these regulations.

The Department relied primarily on the Federal Register and the Code of Federal Regulations, 40 CFR Part 63, in developing this rulemaking proposal. It is available for review at the Department of Environmental Quality's office at 811 SW 6th Avenue, Portland, Oregon. Please contact Mr. Jerry Ebersole, (503) 229-6974 for times when the CFR and other supporting documents are available for review.

Whom does the rule affect including the public, regulated community or other agencies, and how does it affect these groups?

The proposed amendments affect all sources subject to the new and amended federal NESHAPs, provided as Attachment A.

How will the rule be implemented?

The Department will use the Oregon Title V Operating Permit and Air Contaminant Discharge Permit programs to implement the NESHAP standards. Assuming the EQC adopts the proposed rules, the Department's Air Quality Program Development staff will work with the regional staff to develop procedures for incorporating the new standards into the affected sources' air quality permits and for determining compliance. The Department will also inform potentially affected sources of their obligations and how to apply for an extension of the compliance dates.

Are there time constraints?

Each NESHAP has a unique compliance schedule for new and existing sources. It is important that the Department adopt new and amended NESHAPs as soon as possible to allow the Department to take the lead on compliance assurance activities associated with the NESHAPs.

Memo To: Interested and Affected Public
Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants
Page 6

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:

Mr. Jerry C. Ebersole
811 SW 6th Avenue
Portland, OR 97204
(503) 229-6974
In Oregon 1-800-452-4011

This publication is available in alternative format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5317 to request and alternative format.

Attachment B-6

Subpart	Source Category	Oregon Affected Sources	EPA Promulgated		Last DEQ Adoption			Subsequent EPA Revisions	
			Date	FR Citation	Date	Covered EPA Revisions Through		Date	FR Citation
						Date	FR Citation		
A	General Provisions	N/A	03/16/1994	59 FR 12430	10/05/1998	05/21/1996	61 FR 25399	12/17/1996	61 FR 66227
								12/10/1997	62 FR 65024
								05/04/1998	63 FR 24444
								05/13/1998	63 FR 26465
								12/01/1998	63 FR 66061
								01/28/1999	64 FR 4300
								02/12/1999	64 FR 7467
								04/12/1999	64 FR 17562
								06/10/1999	64 FR 31375
F	Synthetic Organic Chemical Manufacturing Industry (SOCMI)	0	04/22/1994	59 FR 19454	10/05/1998	01/17/1997	62 FR 2729	05/12/1998	63 FR 26081
							04/26/1999	64 FR 20191	
G	SOCMI - Process Vents, Storage Vessels, Transfer Operations, and Wastewater	0	04/22/1994	59 FR 19468	10/05/1998	01/17/1997	62 FR 2742	12/09/1998	63 FR 67792
							04/26/1999	64 FR 20191	
H	SOCMI - Equipment Leaks	0	04/22/1994	59 FR 19568	10/05/1998	01/17/1997	62 FR 2788	04/26/1999	64 FR 20198
I	Certain Processes Subject to the Negotiated Regulations for Equipment Leaks	0	04/22/1994	59 FR 19587	10/05/1998	01/17/1997	62 FR 2792		
L	Coke Oven Batteries	0	10/27/1993	58 FR 57911	10/05/1998			01/13/1994	59 FR 1992
M	Perchloroethylene Dry Cleaning*	319	09/22/1993	58 FR 49376	10/05/1998	06/11/1996	61 FR 29485	09/19/1996	61 FR 49265
								12/14/1999	64 FR 69643
N	Hard and Decorative Chromium Electroplating and Chromium Anodizing*	23	01/25/1995	60 FR 4963	10/05/1998	08/11/1997	62 FR 42920	12/14/1999	64 FR 69643
O	Ethylene Oxide Sterilization*	1	12/06/1994	59 FR 62589	10/05/1998	12/09/1997	62 FR 64736	12/04/1998	63 FR 66994
								12/03/1999	64 FR 67793
								12/14/1999	64 FR 69643
Q	Industrial Process Cooling Towers	0	09/08/1994	59 FR 46350	10/05/1998			07/23/1998	63 FR 39519
R	Gasoline Distribution Facilities	0	12/14/1994	59 FR 64318	10/05/1998	01/16/1998	63 FR 2630		
S	Pulp and Paper Industry	5	04/15/1998	63 FR 18616	10/05/1998			08/07/1998	63 FR 42239
								09/16/1998	63 FR 49459
								12/28/1998	63 FR 71389
								04/12/1999	64 FR 17563

Subpart	Source Category	Oregon Affected Sources	EPA Promulgated		Last DEQ Adoption			Subsequent EPA Revisions	
			Date	FR Citation	Date	Covered EPA Revisions Through		Date	FR Citation
						Date	FR Citation		
T	Halogenated Solvent Cleaning*	17	12/02/1994	59 FR 61805	10/05/1998	05/05/1998	63 FR 24751	12/11/1998	63 FR 68400
								07/13/1999	64 FR 37687
								08/19/1999	64 FR 45193
								10/18/1999	64 FR 56173
								12/03/1999	64 FR 67798
							12/14/1999	64 FR 69643	
U	Group I Polymers and Resins	0	09/05/1996	61 FR 46924	10/05/1998	03/17/1997	62 FR 12549	07/15/1997	62 FR 37722
								03/09/1999	64 FR 11542
								05/07/1999	64 FR 24511
								06/30/1999	64 FR 35028
W	Epoxy Resins Production and Non-Nylon Polyamides Production	0	03/08/1995	60 FR 12676	10/05/1998				
X	Secondary Lead Smelting*	0	06/23/1995	60 FR 32594	10/05/1998	06/13/1997	62 FR 32216	08/24/1998	63 FR 45011
								01/29/1999	64 FR 4572
								12/14/1999	64 FR 69643
Y	Marine Tank Loading Operations	0	09/15/1995	60 FR 48399	10/05/1998				
AA	Phosphoric Acid Manufacturing	0	06/10/1999	64 FR 31376					
BB	Phosphate Fertilizer Production	0	06/10/1999	64 FR 31382					
CC	Petroleum Refineries	0	08/18/1995	60 FR 43260	10/05/1998	05/18/1998	63 FR 27212	06/09/1998	63 FR 31361
								08/18/1998	63 FR 44140
DD	Off-Site Waste and Recovery	0	07/01/1996	61 FR 34158	10/05/1998			07/20/1999	64 FR 38963
EE	Magnetic Tape Manufacturing	0	12/15/1994	59 FR 64596	10/05/1998			04/09/1999	64 FR 17464
GG	Aerospace Manufacturing and Rework	0	09/01/1995	60 FR 45956	10/05/1998	03/27/1998	63 FR 15016	09/01/1998	63 FR 46532
HH	Oil and Natural Gas Production	0	06/17/1999	64 FR 32628					
II	Shipbuilding and Ship Repair (Surface Coating)	2	12/15/1995	60 FR 64336	10/05/1998	06/18/1996	61 FR 30816	12/17/1996	61 FR 66227
JJ	Wood Furniture Manufacturing	8	12/07/1995	60 FR 62936	10/05/1998	06/09/1997	62 FR 31363	12/28/1998	63 FR 71380
KK	Printing and Publishing	1	05/30/1996	61 FR 27140	10/05/1998				
LL	Primary Aluminum Reduction	2	10/07/1997	62 FR 52407	10/05/1998				
OO	Tanks - Level 1	N/A	07/01/1996	61 FR 34184	10/05/1998			07/20/1999	64 FR 38985
PP	Containers	N/A	07/01/1996	61 FR 34186	10/05/1998			07/20/1999	64 FR 38987

Subpart	Source Category	Oregon Affected Sources	EPA Promulgated		Last DEQ Adoption			Subsequent EPA Revisions	
			Date	FR Citation	Date	Covered EPA Revisions Through		Date	FR Citation
						Date	FR Citation		
QQ	Surface Impoundments	N/A	07/01/1996	61 FR 34190	10/05/1998			07/20/1999	64 FR 38988
RR	Individual Drain Systems	N/A	07/01/1996	61 FR 34193	10/05/1998			07/20/1999	64 FR 38989
SS	Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process	N/A	06/29/1999	64 FR 34866				11/22/1999	64 FR 63704
TT	Equipment Leaks - Control Level 1	N/A	06/29/1999	64 FR 34886				11/22/1999	64 FR 63705
UU	Equipment Leaks - Control Level 2	N/A	06/29/1999	64 FR 34899				11/22/1999	64 FR 63706
VV	Oil-Water Separators and Organic-Water Separators	N/A	07/01/1996	61 FR 34195	10/05/1998			07/20/1999	64 FR 38991
WW	Storage Vessels (Tanks) - Control Level 2	N/A	06/29/1999	64 FR 34918					
YY	Generic MACT	0	06/29/1999	64 FR 34921				11/22/1999	64 FR 63706
								11/22/1999	64 FR 63698
								12/22/1999	64 FR 71852
CCC	Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants	0	06/22/1999	64 FR 33218					
DDD	Mineral Wool Production	0	06/01/1999	64 FR 29503					
EEE	Hazardous Waste Combustors*	2	06/19/1998	63 FR 33820				09/30/1999	64 FR 53027
								11/19/1999	64 FR 63211
GGG	Pharmaceuticals Production	0	09/21/1998	63 FR 50326					
HHH	Natural Gas Transmission and Storage Facilities	0	06/17/1999	64 FR 32647					
III	Flexible Polyurethane Foam Production	0	10/07/1998	63 FR 53996					
JJJ	Group IV Polymers and Resins	0	09/12/1996	61 FR 48229	10/05/1999	03/31/1998	63 FR 15315	03/09/1999	64 FR 11547
								06/08/1999	64 FR 30409
								06/30/1999	64 FR 35028
LLL	Portland Cement Manufacturing*	1	06/14/1999	64 FR 31925				09/30/1999	64 FR 53070
MMM	Pesticide Active Ingredient Production	0	06/23/1999	64 FR 33589					
NNN	Wool Fiberglass Manufacturing	0	06/14/1999	64 FR 31708					

Subpart	Source Category	Oregon Affected Sources	EPA Promulgated		Last DEQ Adoption			Subsequent EPA Revisions	
			Date	FR Citation	Date	Covered EPA Revisions Through		Date	FR Citation
						Date	FR Citation		
000	Manufacture of Amino/ Phenolic Resins	1	01/20/2000	65 FR 3290					
PPP	Polyether Polyols Production	0	06/01/1999	64 FR 29439				06/14/1999	64 FR 31895
TTT	Primary Lead Smelting	0	06/04/1999	64 FR 30204					
VVV	Publicly Owned Treatment Works	0	10/26/1999	64 FR 57579					
XXX	Ferrous Alloys Production: Ferromanganese and Silicomanganese	0	05/20/1999	64 FR 27458					

NESHAPs not currently adopted by the Department in bold, all others are existing NESHAPs that will be amended.

* Applies to area and major sources

Through 3/8/2000

Attachment C

State of Oregon
Department of Environmental Quality

Memorandum

Date: May 3, 2000

To: Environmental Quality Commission

From: Gregg Lande, Air Quality Division

Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: April 25, 2000, beginning at 3:00 p.m.
Hearing Location: DEQ Headquarters, Room 3A
811 S.W. Sixth Avenue
Portland

Title of Proposal: Annual Update: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The rulemaking hearing on the above titled proposal was convened at 3:00 p.m. No one came to attend the proceedings or to present testimony.

Summary of Oral Testimony

None.

Written Testimony

The only comment received dealt with an error in the cover memo. The cover memo incorrectly listed Hazardous Waste Production as a source category for which a new NESHAP was to be adopted. The cover memo should have listed Hazardous Waste Combustors. However, the table in Appendix A and the proposed rule language in Appendix E correctly listed Hazardous Waste Combustors.

After considering this comment, the Department does not plan to change the original proposed rule language.

There was no further testimony and the hearing was closed at 3:30 p.m.

Attachment D

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Annual Update: Incorporation of National Emission Standards for
Hazardous Air Pollutant (NESHAPs)

Rule Implementation Plan

If adopted, the NESHAP standards will be incorporated in new and renewed Title V and ACDP permits. In many cases, the incorporation of these standards into permits will be based on EPA guidance or revising existing permit conditions. Therefore, the amount of effort should be consistent or slightly less than effort previously expended on the initial ACDP and Title V permits.

Once the NESHAP is incorporated into either a Title V or an ACDP permit, DEQ staff will have to inspect pollution control systems and/or prevention methods, review monitoring data, and review compliance reports as part of their routine compliance inspections. These inspection procedures may be used to identify violations of the emission limits and standards. During the summer and fall of 2000, DEQ staff will provide the following to implement this rule:

- Identify potentially affected sources
- Notify of potentially affected sources
- Develop consistent language for ACDP and Title V permits
- Respond to specific questions from staff and industry

No additional staff will be needed to implement these new requirements.

Environmental Quality Commission

- Rule Adoption Item
 Action Item
 Information Item

Agenda Item E
July 14, 2000 Meeting

Title:

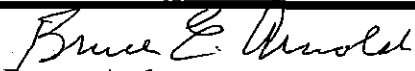
Low Income Waiver

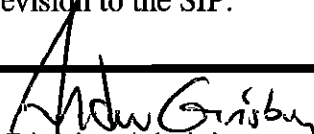
Summary:

This proposed rule will amend and make permanent the temporary rule addressing the hardship waiver program that allows vehicles owned by low income households to be waived from requirements of the enhanced vehicle inspection program within the Portland area vehicle inspection boundary. These vehicles would still be required to comply with the basic vehicle emission test standard.

Department Recommendation:

The department recommends that the Commission adopt the rules/rule amendments to establish a permanent Low-Income Waiver from enhanced emission test as presented in Attachment A of the department Staff Report, as a revision to the SIP.


Report Author


Division Administrator

Director 

State of Oregon
Department of Environmental Quality Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh
Subject: Agenda Item E, Low Income Waiver, EQC Meeting July 14, 2000

Background

On March 15, 2000, the Director authorized the Air Quality Division/Vehicle Inspection Program to proceed to a rulemaking hearing on a proposed rule which will amend and make permanent the low-income waiver from enhanced motor vehicle emissions testing that applies in the Portland Metropolitan Area. If adopted the rule will be submitted to the US Environmental Protection Agency as a revision to the State Implementation Plan (SIP), as required by the Clean Air Act.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on April 1, 2000. 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 the low-income waiver.

A Public Hearing was held April 27, 2000 with Bruce Arnold serving as Presiding Officer. The comment period closed on May 3, 2000. The Presiding Officer's Report (Attachment C) summarizes the hearing and states that no oral testimony was presented. Department staff did not receive any written comments and no modifications were made to the initial rulemaking proposal.

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 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

A low-income waiver program was initiated in 1998 to address the Governor's concerns regarding state rules that may impact low-income people. In response, the Commission adopted a pilot

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

hardship waiver program that allowed vehicles owned by low-income households to be waived from the requirements of the newly introduced enhanced vehicle emissions test. These vehicles were still required to comply with the basic vehicle emission test standards. This hardship waiver benefited low-income households because it reduced their vehicle repair costs to meet emission standards (the average repair cost to meet the enhanced test is estimated to be \$230 compared to the estimated \$100 average cost of repairs to meet the basic test). The waiver program also balanced the need to reduce Portland area ozone emissions by requiring that these vehicles meet the basic test standards.

The initial waiver rule, adopted in 1998 as a pilot program, contained a two-year sunset clause that has expired. After the two-year trial period ended, the program was evaluated, and as an interim measure the pilot program was extended for 180 days (to August 2000) through a temporary rulemaking. This proposal, if adopted by the Environmental Quality Commission, would amend and make permanent the temporary rule for the low-income waiver.

Relationship to Federal and Adjacent State Rules

The federal motor vehicle inspection waiver rule, 40 CFR Part 51.360, allows a one-time waiver from emission testing if the cost of repairing the vehicle so that it will meet emission standards is above a specified range. The federal repair cost limit for the waiver is based on the vehicle's age and the type of emission testing to be performed. The federal rules also provide for an economic hardship time extension when waiver limitations have not been met. Based on conversations with EPA staff, the Oregon program is not subject to 40 CFR Part 51.360 because it only reduces emission testing requirements, from enhanced to basic, and does not completely "waive" them.

Oregon did not adopt the federal waiver program because, with the exception of the time extension, the federal rules do not specifically address the needs of low-income people. Additionally, unlike the federal rule, the Oregon program requires that all vehicles in the inspection program meet at least the basic emission standards.

The motor vehicle inspection program is part of the SIP and the Portland ozone maintenance plan. The ozone maintenance plan contains strategies to insure that the Portland area continues to meet the national ambient air quality standards. As an amendment to the SIP, DEQ must demonstrate that the waiver program, as amended, will not result in exceeding ambient air quality standards. The calculations performed as part of the pilot program show the proposed permanent waiver program does not produce a significant reduction in air quality.

Authority to Address the Issue

The department has the statutory authority to address this issue under ORS468A.380, which provides for the Environmental Quality Commission, by rule, to "establish criteria and examinations for the

testing of motor vehicles.”

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

No advisory committee was formed for this rulemaking. In 1997, as part of the process for the pilot program rulemaking, the Vehicle Inspection Program (VIP) staff conducted meetings with members of social service agencies. The committee consisted of Oregon Legal Services, Catholic Community Services, and Albina Headstart. The committee reviewed alternatives, such as establishing a program that would fund repairs, but recommended the enhanced waiver program.

As part of this rulemaking, the department reviewed the committee findings and implementation of the pilot program. Based on the results of the pilot program, the department is proposing several changes to the waiver program that are discussed below.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

The low-income waivers from enhanced testing will be offered to households with net incomes of less than or equal to 1.3 times the Federal Poverty Guidelines for the year 2000. After the year 2000, the annual income requirement will be adjusted annually, using the Oregon Consumer Price Index for the Portland area. Under the pilot program, a total of 240 low-income waivers were approved during the two-year trial period. We anticipate that as many as 1,000 vehicle owners per registration cycle (every two-years) may be granted waivers under this program.

Loss of Emission Reduction – The waiver does not exempt vehicles from basic emission testing requirements. The loss of emission reduction is balanced by the need for assistance to low-income vehicle owners. The information collected since the initiation of the pilot program indicates that the number of vehicles granted waivers under this program will not result in significant impacts to air quality.

Duration of Waiver – The pilot program was two years in duration, which limited the waiver to a one-time basis. Based on the low number of vehicles that were granted waivers and the economic need of the qualified households, we do not propose to limit the permanent program to a one-time basis. The waiver will be valid for one vehicle registration cycle; however, the rule does not prevent the vehicle owner from applying for another waiver.

Defining Low Income – The staff initially discussed this issue with state and local agencies and with agency representatives in other states. In the pilot program, the department set the eligibility level at 125% of the Federal Poverty Guideline. After reviewing the program results, the vehicle inspection program personnel found that many of the people with fixed incomes did not qualify for a waiver because their income was slightly over the 125% guideline. Based on the results of the pilot

Memo To: Environmental Quality Commission

Agenda Item E, Low Income Waiver, EQC Meeting July 14, 2000

Page 4

program, the qualifying level for this rule making was raised to 130% of the Federal Poverty Guideline.

Verifying Eligibility - The pilot program did not require proof of vehicle ownership or economic status. Based on the results of the pilot program and the potential for fraud, this proposed permanent rule states that proof of eligibility and vehicle ownership may be required. Acceptable forms of proof of eligibility are specified in the VIP Procedures Manual.

Summary of Significant Public Comment and Changes Proposed in Response

No oral testimony or written comments were received.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

The enhanced emissions testing waiver will be implemented through OAR 340-256-300 and the procedures outlined in the VIP Procedures Manual. If the rulemaking and associated procedures are approved by the EQC, the VIP Manual will be updated to include procedures for obtaining acceptable proof of eligibility, current economic eligibility guidelines, and means of distributing waiver applications. Under the updated procedures, waiver application forms will be included in a booklet that is distributed to vehicle owners when their vehicle fails an emissions test. The applicant will submit the completed application form to the VIP Tech Center along with proof of economic eligibility, a copy of the vehicle registration, and a copy of the failed enhanced test. The Tech Center will review the application and associated documentation. These procedures and the proposed proof of eligibility are discussed in detail in Attachments D and E, the Implementation Plan and proposed updated VIP Procedure for granting waivers.

Recommendation for Commission Action

The department recommends that the Commission adopt the rules/rule amendments to establish a permanent Low-Income Waiver from enhanced emission test as presented in Attachment A of the Department Staff Report, as a revision to the SIP.

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

Memo To: Environmental Quality Commission
Agenda Item E, Low Income Waiver, EQC Meeting July 14, 2000
Page 5

- C. Presiding Officer's Report on Public Hearing
- D. Implementation Plan
- E. Vehicle Inspection Program Procedure 309.01 Enhanced Test Waiver

Reference Documents (available upon request)

40 CFR Part 51, July 1999
EQC Report, entitled Agenda Item H, EQC Meeting February 20, 1998
Federal Poverty Guidelines for year 2000

Approved:

Section:

Ted Kotzko

Division:

Ardu G...

Report Prepared by: Bruce E. Arnold

Phone: 731-3050 x 237

Date Prepared: June 2, 2000

F:\TEMPLATE\FORMS\EQCRULE.DOT
10/19/95

340-200-0040

State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the state implementation plan (SIP) of the State of Oregon pursuant to the federal **Clean Air Act**, Public Law 88-206 as last amended by Public Law 101-549.

(2) Except as provided in section (3) of this rule, revisions to the SIP shall be made pursuant to the Commission's rulemaking procedures in Division 11 of this Chapter and any other requirements contained in the SIP and shall be submitted to the United States Environmental Protection Agency for approval.

(3) Notwithstanding any other requirement contained in the SIP, the Department is authorized:

(a) To submit to the Environmental Protection Agency any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after the Department has complied with the public hearings provisions of **40 CFR 51.102 (July 1, 1992)**; and

(b) To approve the standards submitted by a regional authority if the regional authority adopts verbatim any standard that the Commission has adopted, and submit the standards to EPA for approval as a SIP revision.

[NOTE: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468.020

Stat. Implemented: ORS 468A.035

Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-91; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert. ef. 3-30-92; DEQ 19-1992, f. & cert. ef. 8-11-92; DEQ 20-1992, f. & cert. ef. 8-11-92; DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 26-1992, f. & cert. ef. 11-2-92; DEQ 27-1992, f. & cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 8-1993, f. & cert. ef. 5-11-93; DEQ 12-1993, f. & cert. ef. 9-24-93; DEQ 15-1993, f. & cert. ef. 11-4-93; DEQ 16-1993, f. & cert. ef. 11-4-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 1-1994, f. & cert. ef. 1-3-94; DEQ 5-1994, f. & cert. ef. 3-21-94; DEQ 14-1994, f. & cert. ef. 5-31-94; DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 9-1995, f. & cert. ef. 5-1-95; DEQ 10-1995, f. & cert. ef. 5-1-95; DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 17-1995, f. & cert. ef. 7-12-95; DEQ 19-1995, f. & cert. ef. 9-1-95; DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95; DEQ 8-1996 (Temp), f. & cert. ef. 6-3-96; DEQ 15-1996, f. & cert. ef. 8-14-96; DEQ 19-1996, f. & cert. ef. 9-24-96; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 23-1996, f. & cert. ef. 11-4-96; DEQ 24-1996, f. & cert. ef. 11-26-96; DEQ 10-1998, f. & cert. ef. 6-22-98; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 17-1998, f. & cert. ef. 9-23-98; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 21-1998, f. & cert. ef. 10-12-98; DEQ 1-1999, f. & cert. ef. 1-28-99; DEQ 2-1999, f. & cert. ef. 3-25-99; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 10-1999, f. & cert. ef. 7-1-99; renumbered from OAR 340-020-0047; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 2-2000, f. 2-17-00, cert. Ef. 6-1-01

**DIVISION 256
MOTOR VEHICLES**

Emission Control System Inspection

340-256-0300

Scope

Pursuant to ORS 467.030, 468A.350 to 468A.400, 803.350, and 815.295 to 815.325, OAR 340-256-0300 through 340-256-0460 establish the criteria, methods, and standards for inspecting motor vehicles to determine eligibility for obtaining a Certificate of Compliance or inspection.

(1) After September 1, 1997, in addition to the basic test, an enhanced test may be established in the Portland Vehicle Inspection Area.

(a) A light duty vehicle that is five (5) or less model years old or is a 1975 through 1980 model year is required to meet the basic test requirements of OAR 340-256-0340, 340-256-0380, 340-256-0400 and 340-256-0430.

(b) A light duty vehicle that is six (6) or more model years old and is a 1981 or newer model year is required to meet the enhanced test requirements of OAR 340-256-0350 and 340-256-0410. These vehicles found to be safe but unable to be dynamometer tested due to drive line configuration and these vehicles equipped with All Wheel Drive (AWD) shall meet the basic test requirements of OAR 340-256-0340, 340-256-0380, 340-256-0400 and 340-256-0430

(c) A heavy duty vehicle is required to meet the basic test requirements of OAR 340-256-0340, 340-256-0390 and 340-256-0420.

(2) A basic test shall continue in the Medford-Ashland Air Quality Maintenance Area for vehicles to meet the requirement of OAR 340-256-0340, 340-256-0380, 340-256-0390, 340-256-0400 and 340-256-0420.

(3) ~~For vehicle registrations that expire between 2/1/98 and 1/31/2000, v~~Vehicle owners may apply for a ~~one-time~~ waiver from the enhanced test requirements in OAR 340-256-0300(1)(b) and 340-256-0350. Vehicle owners are eligible in the year 2000 if their net household income is less than or equal to that within the established by multiplying the year 2000 Federal Poverty Guideline amounts by 1.3. For each year after the year 2000, the calculated year 2000 numbers are adjusted using the Oregon Consumer Price Index for the Portland Metro Regional Area. Proof of eligibility and vehicle ownership may be required by the Department. Providing false information may result in revocation of the low income waiver. ~~income levels based on household size:~~

Net Monthly Income Thresholds

<u>Household Size</u>	<u>Net Monthly Income</u>
1	\$ 822
2	1106
3	1389
4	1672
5	1956
6	2239
7	2522
8	2806

~~Each add. Member: +284~~

If the Department approves the waiver, the owner must pass the basic motor vehicle emissions test requirements in OAR 340-256-0300(1)(a) and 340-256-0340 and pay the required fees in order to receive a certificate of compliance

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

[ED. NOTE: The Chart referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 467.030 & ORS 468A.350 - ORS 468A.400

Stats. Implemented: ORS 468A.350 - ORS 468A.400, ORS 803.350 & ORS 815.295

Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 23-1984, f. 11-19-84, ef. 4-1-85; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1996, f. & cert. ef. 11-26-96; DEQ 2-1998, f. & cert. ef. 3-5-98; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-024-0300
.: DEQ 25-1996, f. & cert. ef. 11-26-96; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-024-0360

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
A Statement of Need and Fiscal Impact accompanies this form.

DEQ - Air Quality
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

		DEQ Headquarters Room 3A, 811 SW 6 th Avenue Portland, Oregon	
<u>April 27, 2000</u>	<u>3:00 pm</u>		<u>Bruce Arnold</u>
Hearing Date	Time	Location	Hearings Officer

Are auxiliary aids for persons with disabilities available upon advance request?

Yes No

RULEMAKING ACTION

ADOPT:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

AMEND:

OAR 340-256-0300, OAR 340-200-0040

Stat. Auth.: ORS 468A.365, ORS 468A.363, 468A.380, and ORS 468.020
Stats. Implemented: ORS 468A.365

RULE SUMMARY

This rule proposal is to amend and make permanent the temporary rule that waives enhanced vehicle inspection testing for vehicles owned by qualified low-income households. The vehicles that are waived from enhanced testing would still be required to pass a basic emissions test. The enhanced test is only conducted in the Portland area; therefore, the proposed rule only applies to motor vehicles in located within the Portland vehicle inspection boundary. The proposed rule includes a provision that the department may require proof of eligibility and vehicle ownership prior to granting a waiver. If adopted, these rules will be submitted to the U.S. Environmental Protection Agency as a revision to the State Implementation Plan, which is a requirement of the Clean Air Act.

May 3, 2000
Last Day for Public Comment


Authorized Signer and Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Low Income Waiver from Enhanced Emissions Test

Fiscal and Economic Impact Statement

Introduction

In 1998, a pilot waiver program was started to provide low-income owners whose vehicles failed the enhanced test method a one-time waiver from the enhanced test. The proposed rule would make permanent the trial waiver policy for low-income vehicle owners. This policy allows a vehicle that fails an enhanced test to be given the less stringent basic test. Portland and Medford are the only two areas in the state that conduct motor vehicle inspection and maintenance programs. The waiver program is projected for use in the Portland area only because Medford does not perform an enhanced test. During the two-year trial period relatively little advertising of the waiver was done, and the low-income waiver was used by a total of 240 vehicle owners. DEQ staff estimates that as many as 1,000 vehicle owners per two-year registration cycle could potentially apply and qualify for the low-income waiver.

General Public

The low-income motor vehicle owners in the Portland area will be offered a waiver from the enhanced test; however, the vehicles will still be required to pass the less stringent basic test. The failure rate of the enhanced test is approximately twice that of the basic test; therefore, about half of the vehicles failing the enhanced test will pass the basic test without requiring repairs. Although repairs will still be required for those vehicles that fail the basic test after being diverted from the enhanced test, the low-income vehicle owner should still realize a cost savings. The cost of repairs to pass the basic test is estimated by EPA to be an average of only \$100 compared to \$230 for an enhanced test. Assuming 50 percent of the estimated qualifying (low-income applicant) 1000 automobiles that fail the enhanced test, pass the basic test without repairs, and the other 50 percent require repairs to pass the basic test, the total savings to the first group will be $50\% \times 1000 \times \$230 = \$115,000$ and the total savings to the second group will be $50\% \times 1000 \times (\$230 - 100) = \$65,000$ for a total savings to the general public of \$180,000.

Small Business

A slight reduction in auto repair work will be seen by auto repair shops of about \$180,000, which is equivalent to the calculated cost saving for the general public shown above.

Large Business

No impact on large businesses is anticipated.

Local Governments

No impact on local governments is anticipated.

State Agencies

DEQ

The change in the waiver policy in the proposed rule is to make permanent the waiver process that already exists. Therefore, there will be little new impact on DEQ. The number of waivers processed in the last two years was 240. This number may grow some as the VIP staff develops additional ways of distributing information and the waiver program becomes better known. The estimated maximum labor to continue this waiver processing work is less than 0.1 FTE.

Other Agencies

No impact to other agencies.

Assumptions

The FTE calculation for administration labor costs was based on an application processing time of 10 minutes per low-income waiver, and the assumption of 1,000 waivers processed per biennium.

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.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Low-Income Waiver from Enhanced
Emissions Test

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

To adopt the low income waiver from VIP's enhanced vehicle emissions test temporary rules as permanent rules.

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 No

a. If yes, identify existing program/rule/activity: N/A

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? Yes No (if no, explain):
N/A

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

- 1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2 above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

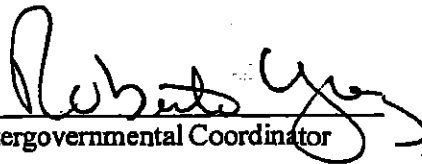
It has been determined through the DEQ State Agency Coordination Program process that the Vehicle Inspection Program is not a DEQ activity or program that significantly affects land use.

- 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

3/8/00
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?**

The motor vehicle inspection program is part of the Oregon State Implementation Plan (SIP) and the Portland Ozone Maintenance Plan. The federal rules require that states meet ambient air quality standards and that rule amendments do not result in a SIP relaxation. The DEQ is required to submit calculations to show that the waiver program will not result in exceeding ambient air quality standards. Preliminary calculations performed as part of the pilot program show that the waiver program will not produce a significant reduction in air quality.

- 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?**

The federal motor vehicle inspection and maintenance rules do not directly address Oregon's program. The federal rules contain waiver provisions; however, the waiver rules do not require that the vehicle pass a different test method. The Oregon program, which waives enhanced testing requirements for low-income drivers, is outside of the federal rules. According to conversations between DEQ and the EPA, Oregon must make a showing that the rules will not result in noncompliance with the SIP. Based on the calculations performed, the impact to air quality in the Portland Metro area will be minimal.

- 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?**

The waiver program will assist low-income vehicle owners in meeting regulatory requirements because it will waive the requirement for the enhanced testing. The low-

income vehicle owner will only have to meet basic test requirements, which are less costly.

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)

The waiver program will provide a greater opportunity for low-income vehicle owners to comply with air quality regulations by making them more affordable.

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?

The waiver rules differ from the federal waiver rules, which are generally based on the cost of vehicle repairs, but allow a one-time time extension for low-income vehicle owners. The Oregon rules waive enhanced testing requirements for low-income vehicle owners; however, these vehicles are still required to pass a basic inspection test. Under the Oregon program less recordkeeping and reporting is required because the program does not completely waive testing requirements.

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?

Based on the results of the two-year pilot program, the waiver program will not result in significant impacts to the airshed.

**State of Oregon
Department of Environmental Quality**

Memorandum

Date: March 10, 2000
To: Interested and Affected Public
Subject: Rulemaking Proposal and Rulemaking Statements - Low-Income Waiver from Enhanced Emission Test

This memorandum contains information on a proposal by the Department of Environmental Quality (DEQ) to adopt new rules and rule amendments regarding waivers from the existing enhanced emissions test. Pursuant to ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's (EQC) intended action to adopt a rule.

If adopted, this proposal would make permanent the current temporary rule regarding low-income waivers from Vehicle Inspection Program's (VIP) enhanced vehicle emissions test in the Portland area.

In 1998, a pilot waiver program was started to provide low-income motor vehicle owners whose vehicles failed the enhanced test method a one-time waiver from the enhanced test. These vehicles were still required to pass the basic test. The pilot program expired on January 31, 2000. The program was extended for an additional 180 days through a temporary rulemaking by the EQC on February 11, 2000. In this rulemaking, the department is proposing rules to establish a permanent waiver program patterned after the pilot program.

The department has the statutory authority to address this issue under ORS 468A.380 (1)(c) which provides for the EQC to "establish criteria and examinations for the testing of motor vehicles" by rule. The implementation statute for this action is ORS 468A.365.

If adopted, this rule will be submitted to the U.S. Environmental Protection Agency as a revision to the State Implementation Plan, which is a requirement of the Clean Air Act.

Acronyms and Keywords Used in the Package

VIP	Vehicle Inspection Program operates as a part of the DEQ to test and insure repair of vehicle emission problems in the Portland and Medford airsheds.
DEQ	Department of Environmental Quality
EQC	Environmental Quality Commission
I/M Program	Vehicle Inspection/Maintenance Testing Program
Basic Test	A vehicle tailpipe emissions test performed while the vehicle is idling. This test is currently performed on all 20-year and newer vehicles in the

Medford area. It is performed in the Portland area for only the following vehicle classes: 1) model years five years old and newer, 2) model years 1975 through 1980.

Enhanced Test

A transient vehicle emissions test with emission measurements taken while the vehicle is driven under load on rollers (a BAR31 trace is driven in the Oregon enhanced lanes). This test is currently not performed in Medford and is used in the Portland area on model years 1981 through 1995. The enhanced test is approximately twice as effective as the basic test in identifying vehicles that have excessive emissions that contribute to air pollution.

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 1 The actual language of the proposed rule amendments.
- Attachment D 2 State Implementation Plan Rule
- Attachment E Proposed Policies and Procedures

Public Comment Period

DEQ is conducting a public hearing in the Portland area, at which comments will be accepted by the hearings officer either orally or in writing. The hearing will be held as follows:

- Date:** Thursday, April 27, 2000
- Time:** 3:00 p.m.
- Place:** DEQ Headquarters (Executive Building), Room 3A, 811 SW 6th Avenue, Portland, OR

Presiding Officer: Bruce Arnold

Deadline for Submittal of Written Comments: 5:00 p.m., Wednesday, May 3, 2000 (*This is not a postmark date, written comments must be received at the address below by this date.*)

Written comments can be presented at the hearing or to DEQ any time prior to the deadline date

Memo To: Interested and Affected Public
Low-Income Waiver from Enhanced Emission Test
Page 3

above. Comments should be sent to: **Department of Environmental Quality, Vehicle Inspection Program, Attn: Bruce Arnold, 1301 SE Morrison Street, Portland, Oregon 97214**

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 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 July 14, 2000. 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 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?

When DEQ's enhanced vehicle test was implemented in the Portland area in May of 1998, replacing the basic test for 1981-93 model year vehicles, DEQ was concerned that it would have an inequitable impact on low-income vehicle owners. It was anticipated that low-income households might disproportionately own more of the 1981 - 1993 model year vehicles. The failure rate for these vehicles averages about 35 percent, which is approximately double that of the basic test. The department initially believed that over time the failure rate for these vehicles would drop as

mechanics learned better ways of repairing the vehicles to meet the emission standards of the enhanced test. However, the failure rate has continued to be very high. EPA believes these vehicles have major emission problems because the manufacturers were learning a new technology during the eighties, which was the transition from carbureted to fuel injection gasoline supply systems.

DEQ proposes to continue to offer the waiver on an ongoing basis to those motor vehicle owners who can demonstrate low-income eligibility.

How was the rule developed?

During the initial rulemaking to establish the pilot waiver program, the VIP staff met with three social service agencies to discuss issues concerning the adoption of an economic hardship waiver from the enhanced vehicle testing requirements. No further advisory committee involvement is planned because the direction received by the above mentioned social service agencies was adequate to formulate policy; however, DEQ will respond to recommendations and comments received during the comment period for this proposed rule.

The VIP staff also reviewed the implementation of the pilot program. Based on the results of the pilot program, VIP is proposing several changes to the current waiver program. These changes include the removal of the one-time stipulation for eligibility and include a requirement for proof of vehicle ownership and low-income eligibility. These changes are reflected in the proposed rule language. Additionally, the VIP staff proposes to improve public education about the waiver program. The changes in procedures are presented as Attachment E.

Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Vehicle Inspection Program's office at 1301 SE Morrison Street, Portland, Oregon. Please contact Bruce Arnold at 503-731-3050, extension 237, for times when the documents are available for review. These documents include:

 OAR 340-024-0300, filed and effective 3-5-98
 OAR 340-256-0300, filed and effective 2-17-00
 40 CFR part 51, July 1999
 EQC Report, entitled Agenda Item H, EQC Meeting February 20, 1998 and attachments
 Federal Poverty Guidelines for the year 2000

Whom does this rule affect including the public, regulated community or other agencies, and how does it affect these groups?

Low-income waivers will be offered to households with net incomes of less than or equal to 1.3 times the Federal Poverty Guidelines for the year 2000 and will be adjusted annually. This currently equates to a net monthly income of approximately \$900 for a one-person household, with the income level limit increasing by approximately \$300 for each additional member of the household.

Under the pilot program, a total of 240 low-income waivers were approved during the two-year trial period. During the trial period, the VIP inspectors routinely offered the program to vehicle owners whose vehicle failed the enhanced test, although extensive advertising of the program was not done. Under the permanent program, VIP will advise vehicle owners of the low-income waiver, along with other vehicle emission information, by distributing a booklet. The booklet will be given to any vehicle owner whose vehicle fails a motor vehicle inspection test. The permanent waiver program will require that applicants provide proof of economic eligibility and demonstrate vehicle ownership. These items were not required under the pilot program. We anticipate that as many as 1,000 vehicle owners per registration cycle may be granted waivers under this program. This number is based on participation reported by other states with waiver programs.

How will the rule be implemented?

Section 309.01 of the VIP Procedures Manual has been updated to include VIP's proposed procedures for obtaining acceptable proof of eligibility, current economic eligibility guidelines, and means of distributing applications. Under the updated procedures, waiver application forms will be included in a booklet that is distributed to vehicle owners when their vehicle fails an emissions test. The applicant will submit in person or by mail the completed application form to the VIP tech center along with proof of economic eligibility, a copy of the vehicle registration, and a copy of the failed enhanced test. Acceptable forms of showing economic eligibility include submitting current copies of an Oregon Trails card, an Oregon Plan medical card, a W2, or similar documentation to be approved by the department. Staff at the VIP tech center will review the application and associated documentation.

Upon approval, the tech center will issue the blue copy of the waiver acceptance form to the qualified vehicle owner. The white copy of this form will be filed at the tech center. The qualified applicant will present the blue acceptance form to the Customer Service Representative at the vehicle inspection station. The qualified applicant will be directed to the basic test lane. The vehicle inspector will verify the vehicle information on the form by comparing it with the vehicle's model year, make, and license plate number. If the vehicle passes the basic test, the inspector will attach the waiver form to the basic test result and send the forms to the tech center. If the vehicle fails, the inspector will give the blue copy back to the customer so that the vehicle can be repaired to meet basic test standards and the form can be resubmitted.

The updated procedure is currently in draft form and is being submitted in this public comment package as Attachment E. The final Procedures will be developed after the close of the comment period and implemented at the time the rule is filed and effective.

All inspectors in the Portland area will be trained on the waiver program procedures prior to the effective date of the regulation. The VIP station managers will be informed of the changes in procedures during their periodic manager meetings. The VIP station managers will train the inspectors to insure that booklets and information are distributed to motor vehicle owners when their vehicles fail either the enhanced or basic emissions test. The low-income waivers will be granted at the VIP tech center and distributed to the applicant either by mail or in person. The staff at the tech center that implement the program have been involved in developing the permanent rule and are aware of the new guidelines.

Are there time constraints?

The pilot waiver program was extended by temporary rulemaking that was filed with the Secretary of State on February 17, 2000 and is effective as of that date. The temporary rule will expire on August 9, 2000. The permanent rules should be in place prior to the expiration of the temporary rule to prevent a lapse in time and ensure that all qualified applicants receive waivers. The DEQ will implement the new policies requiring proof of eligibility and ownership as soon as rules are approved by the EQC and are filed with the Secretary of State.

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:

Bruce Arnold
Department of Environmental Quality
Vehicle Inspection Program
1301 SE Morrison Street
Portland, OR 97214
(503) 731-3050 extension 237 or toll free in Oregon (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: May 5, 2000

To: Environmental Quality Commission
From: Bruce E. Arnold
Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: April 27, 2000, beginning at 3:00p.m.
Hearing Location: DEQ Headquarters(Executive Building), Room 3A, 811 SW 6th Avenue.
Portland, Oregon.

Title of Proposal: Low-Income Waiver from Enhanced Emission Test

The rulemaking hearing on the above titled proposal was convened at 3:07p.m. Attendees were asked to sign the witness registration forms if they wished to present testimony. Those in attendance were advised that the hearing was being recorded and the hearing procedures were described.

Two people were in attendance, No people signed up to give testimony.

Prior to receiving testimony, Jerry Coffey from the Vehicle Inspection Program briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

Summary of Oral Testimony

No oral testimony was offered

Written Testimony

No written testimony was presented.

There was no further testimony and the hearing was closed at 3:11p.m.

There being no testimony there is no Department's Evaluation of Public Comment, nor Detailed Changes to Original Rulemaking Proposal in Response to Public Comments, nor Advisory Committee Membership Report.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Low Income Waiver for Enhanced Emissions Testing

Rule Implementation Plan

Summary of the Proposed Rule

Vehicle emissions testing is performed in the Medford and Portland Metropolitan areas. The vehicle inspection program in the Portland area includes an enhanced emissions test for certain model years of vehicles. The vehicle inspection program in Medford consists of a basic test only.

In 1998, the department adopted a rule that created a two-year pilot program granting low-income waivers from enhanced testing for vehicles owned by qualified households. The vehicles that received a waiver were still required to pass the basic emissions test. After the two-year trial period ended, the program was evaluated, and as an interim measure the pilot program was extended for 180 days through a temporary rulemaking. This proposed rulemaking would establish a permanent program to offer low-income waivers from enhanced emissions testing in the Portland area.

Under the permanent program, the waiver will be offered to households with net incomes of less than or equal to 1.3 times the Federal Poverty Guidelines for the year 2000. After the year 2000, the annual income requirement will be adjusted annually, using the Oregon Consumer Price Index for the Portland area. Under the pilot program, a total of 240 low-income waivers were approved during the two-year trial period. We anticipate that as many as 1,000 vehicle owners per registration cycle (every two years) may be granted waivers under this program.

Proposed Effective Date of the Rule

The waiver is to be effective upon filing with the Secretary of State; estimated timing is July 20, 2000.

Proposal for Notification of Affected Persons

In addition to the public notice process, affected persons will be notified of the waiver if their vehicle fails an emissions test at the Vehicle Inspection Program (VIP) station. The waiver

application forms will be included in a booklet that is to be distributed to vehicle owners when their vehicle fails an emissions test.

Proposed Implementing Actions

The VIP Procedures Manual will be updated to reflect the new waiver policy. The guidance booklet that is currently distributed to vehicle owners will be updated to include the waiver form, and will be distributed when a vehicle fails an emissions test.

The applicant will submit in person or by mail the completed application form to the VIP tech center along with proof of economic eligibility, a copy of the vehicle registration, and a copy of the failed enhanced test. Acceptable forms of showing economic eligibility include submitting current copies of an Oregon Trails card, an Oregon Health Plan card, a W2, or similar documentation approved by the department. The tech center will review the application and associated documentation.

Upon approval of the waiver, the tech center will issue a copy of the waiver acceptance form to the qualified vehicle owner. The qualified applicant will present the acceptance form to the Customer Service Representative at the vehicle inspection station. The qualified applicant will be directed to the basic test lane. The vehicle inspector will verify the vehicle information on the form by comparing it with the vehicle's model year, make, and license plate number. If the vehicle passes the basic test the inspector will attach the waiver form to the basic test result and send the forms to the tech center. If the vehicle fails, the inspector will give the form back to the customer so that the vehicle can be repaired to meet basic test standards and the form can be resubmitted.

Proposed Training/Assistance Actions

All inspectors in the Portland area will be trained on the waiver program procedures prior to the effective date of the regulation. The VIP station managers will be informed of the changes in procedures during their periodic manager meetings. The VIP station managers will train the inspectors to insure that booklets and information are distributed to motor vehicle owners when their vehicles fail an emissions test.

**PROCEDURE: 309.01****ENHANCED TEST
WAIVER**

SUBJECT: Enhanced Test Waiver Procedures

POLICY/PROCEDURE NUMBER: 309.02

EFFECTIVE DATE:
AUGUST 1, 2000

SUPERSEDES: 309.01

DATE SIGNED:

APPROVED BY:

ORIGINATING SECTION: PROGRAM OPERATIONS

PURPOSE: To describe the procedure to be followed when a vehicle owner requests a waiver from the Enhanced emission test.

REFERENCE: Application for Enhanced Test Waiver

Who is eligible?

Any low-income vehicle owner whose vehicle failed the Enhanced Test and who meets the hardship eligibility requirements described on the back of the waiver application.

How do Customers Obtain Application Forms?

The waiver form will be incorporated in the booklet, *A Drivers Guide to Clean Air*, and distributed to the owners of vehicles that fail the basic or enhanced test. Additionally, the customer may request a booklet from any of the Clean Air Stations in the Portland Metro area, or from the Tech Center. Customers may pick up a form in person, or request one by phone, mail or FAX.

How is Completed Application to be Processed?

TECH CENTER

1. Make sure the application has been completed and signed.
2. Check income and number in household against criteria on back of the application. Verify income against submitted proof of income documentation. This will include one of the following: 1) Oregon Trail Card, 2) W2, 3) Oregon Health Plan Card, or 4) other documentation approved by the department.
3. Confirm that copy of vehicle registration is submitted.
4. Confirm that copy of fail slip from Enhanced Test is submitted.
5. If application is *approved*, then:
 - a. Fill out *Office Use Only* area of application.
 - b. Issue Enhanced Test waiver form to customer by mail, or customer can pick-up BLUE part of the waiver form in person at Tech Center.
 - c. WHITE part of the waiver form is attached to application and put in the Office Staff's in-box.

CLEAN AIR STATIONS

PUBLIC ANNOUNCEMENT

1. Every customer that fails the enhanced, OBD or basic test will be given a copy of "A Driver's Guide to Clean Air" which contains information about the waiver program and also contains a tear out copy of the waiver application form.

PROCESSING THE WAIVER

1. A customer should show waiver form to Customer Service Representative (CSR) at kiosk, CSR directs customer to Basic Lane.

Agenda Item E, Low Income Waiver, EQC Meeting July 14, 2000

2. When customer presents blue waiver form, Vehicle Inspector must verify vehicle information with waiver form, matching vehicle's year, make, model, license plate number and the Vehicle Inspection Number (VIN).
3. If vehicle *passes* Basic Test, Inspector attaches waiver form to pink copy of Basic Test Certificate of Compliance and sends in to Tech Center with daily paperwork.
4. If vehicle *fails* Basic Test, Inspector gives blue waiver form back to customer so he or she can have repairs or adjustments made in order to pass the Basic Test. Vehicle **MUST** pass the Basic Test before customer can renew registration.

**OREGON
VEHICLE EMISSIONS TEST PROGRAM
APPLICATION FOR ENHANCED TEST WAIVER**

Registered Vehicle Owner _____			
	Last Name	First Name	M.I.

Address	City	State	Zip

Phone Number	License Plate Number	Vehicle Identification Number	

Vehicle Year	Vehicle Make	Vehicle Model	

Net Monthly Income	Household Size (number of members in household)		

I understand that submission of false information on this form could result in revocation of this Hardship Waiver and subject me to prosecution and penalties as provided by the laws of the State of Oregon. I also understand that my vehicle must pass the Basic Test in order to be registered.

Signature of Applicant _____

****** OFFICE USE ONLY******

Date Waiver Issued _____

Income Verification _____

Vehicle Inspection Program _____

**OREGON VEHICLE INSPECTION PROGRAM
HARDSHIP ELIGIBILITY REQUIREMENTS**

Motorists may be eligible for a hardship waiver for vehicles that fail the Oregon Enhanced Test. Vehicle owners may apply for a waiver from the Enhanced Test requirements. Vehicle owners are eligible if their net household income is less than or equal to the established income levels based on household size.

Net Monthly Income Thresholds

Household Size	Net Monthly Income
1	\$ 904
2	1218
3	1532
4	1847
5	2161
6	2475
7	2787
8	3103
Each additional member	+ 314

If the Department approves the waiver, the owner must pass the basic motor vehicle emissions test requirement and pay the required fees in order to receive a certificate of compliance.

TO RECEIVE THE ENHANCED TEST WAIVER, THE REGISTERED OWNER MUST SUBMIT THE COMPLETED APPLICATION, A COPY OF PROOF OF INCOME (Current: Oregon Trail Card, Oregon Health Plan Card, or most recent W2), A COPY OF FAILED ENHANCED TEST REPORT, AND A COPY OF VEHICLE REGISTRATION.

Agenda Item E, Low Income Waiver, EQC Meeting July 14, 2000

Send documents to Vehicle Inspection Program, 1240 SE 12th Avenue, Portland, OR 97214, telephone number (503) 731-3050, fax (503) 731-3269

SQUIRE
SANDERS

LEGAL
COUNSEL
WORLDWIDE

SQUIRE, SANDERS & DEMPSEY L.L.P. *OK*

1300 Huntington Center
41 South High Street
Columbus, Ohio 43215-6197

Office: +1.614.365.2700
Fax: +1.614.365.2499
Preferred Fax: +1. _____
If Problems: +1. _____

July 13, 2000

PLEASE DELIVER THESE PAGES IMMEDIATELY

No. of Pages (including cover): 5

To: Melinda S. Eden

Facsimile No: (503) 229-6124

Company: Environmental Quality Commission

Confirmation No:

To: Larry Edelman

Facsimile No: (503) 229-5797

Company: Oregon Department of Justice

Confirmation No:

From: Keith Shurnace

Direct Dial No: +1.614.365.2834

Re:

Message:

CONFIDENTIALITY NOTICE:

The attached information is LEGALLY PRIVILEGED AND CONFIDENTIAL and is intended only for the use of the addressee named above. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, please be aware that any dissemination, distribution or duplication of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the address above via the postal service. Thank you.

Sender No.: 03298

10166.00166

Cathi Bell

Account No.

Return to Office

Tab No.

SQUIRE SANDERS | LEGAL
COUNSEL
WORLDWIDE

SQUIRE, SANDERS & DEMPSEY L.L.P.

1300 Huntington Center
41 South High Street
Columbus, Ohio 43215-6197

Office: +1.614.365.2700
Fax: +1.614.365.2499

Direct Dial
(614) 365-2834
kshumate@ssd.com

July 13, 2000

VIA TELECOPY

Melinda S. Eden, Chair
c/o Environmental Quality Commission
Department of Environmental Quality
811 S.W. Sixth Street
Portland, OR 97204

Re: Proposed Adoption of OAR 340-071-0130(2)(c)

Dear Ms. Eden:

I write to you concerning the Commission's decision to adopt the above-referenced rule without providing adequate notice and an opportunity for comment as required by Oregon law. I urge the Commission to reconsider its position in light of this letter.

This law firm is legal counsel to PSA, Inc. ("PSA"). PSA designs and manufactures the BioDifusser™, an alternative on-site waste water disposal system. PSA markets and sells BioDifusers throughout the country. PSA is a direct competitor of Infiltrator Systems, Inc. ("Infiltrator") and EZ Drain, two companies who have approvals to sell their products in the State of Oregon. This state is one of the best markets in the country for alternative on-site waste water disposal systems, and for the last several years PSA has engineered a chamber model for use in this state. The PSA unit intended for sale in this state is the functional equivalent of the Infiltrator model currently being used in Oregon.

We understand that the Water Quality Division was directed to consider and propose rules to establish criteria for the Department of Environmental Quality in evaluating new or innovative technologies and materials for on-site sewage and disposal systems. Among the items the Division was to consider was whether the proposed rules created a level playing field. The Division eventually developed certain standards for consideration, and the

Ms. Melinda S. Eden
July 13, 2000
Page 2

Department of Environmental Quality confirmed to the public that these standards created a level playing field:

Yes, the proposed rule establishes a level playing field for the review and evaluation of new and innovative technologies and materials.

See (September 15, 1999 Memorandum to Interested and Affected Public, No. 7).

Among other things, the proposed rules provided for the expiration of the approvals previously given to Infiltrator and EZ Drain. As such, all parties were required to adhere to the state's new standards for alternative on-site systems. After public notice, hearings and an opportunity to comment, the proposed rules were apparently adopted by the Environmental Quality Commission in late 1999.

The Department later adopted a temporary rule to permit the prior approvals to expire at the end of August, 2000. On July 11, 2000, PSA learned for the first time that on July 14, 2000 the Environmental Quality Commission intended to adopt OAR 340-071-0130(2)(c) which would amend OAR 340-071-0130(2) to prevent the approvals granted to Infiltrator and EZ Drain from expiring, thereby giving these two companies a significant competitive advantage. Neither PSA nor any other supplier was not given any prior notice of this proposed amendment. Nor was PSA given an opportunity to comment on the rule change. Indeed, in a memorandum prepared by Langdon Marsh, the Department of Environmental Quality conceded that the proposed amendment was not "included or described in the Public Notice of Rulemaking." (June 12, 2000 Memorandum, p. 4).

The Commission's decision to adopt this provision in the absence of public notice and an opportunity to be heard stands in sharp contrast to the requirements of Oregon law. Oregon Administrative Rule 340-011-0010 states that the Department of Environmental Quality shall provide notice of its intention to adopt, amend, or appeal any rules in compliance with Oregon Revised Statute ("ORS") §183.335. ORS §183.335 provides that "[p]rior to the adoption, amendment, or repeal of any rule, the agency shall give notice of its intended action." (Emphasis added). The content of the notice must set forth the subject matter and purpose of the intended action in sufficient detail to inform a person that the person's interest may be affected, and the time, place and manner in which interested persons may present their views on the intended action. (Id.) In addition, the statute also requires that when an agency proposes to adopt, amend or appeal a rule, it should give interested persons reasonable opportunity to submit data or views. (Id.)

Ms. Melinda S. Eden
July 13, 2000
Page 3

In addition, the statute provides that "[n]o rule is valid unless adopted in substantial compliance with the provisions of this section in effect on the date the rule is adopted." ORS §185.335(10). Oregon courts have not hesitated to invalidate agency action for a failure to comply with these statutory requirements. For example, in Dika v. Department of Insurance Finance, 312 Or 106, 817 P. 2d 287 (1991), the Supreme Court of Oregon invalidated a rule adopted by the Department of Insurance and Finance where the notice of the proposed rulemaking did not contain adequate fiscal impact statement containing estimate of economic impact that would be caused if the rule were adopted. Likewise, in Burke v. Children's Services Division, 288 Or 533, 607 P2d 141 (1980), the Oregon Children's Services Division adopted two temporary rules terminating a child care payment program but never adopted a permanent rule to that effect, as is required by ORS § 183,335. The Supreme Court found that the plaintiffs, who were former recipients under the program, were entitled to declaratory judgment that the program's termination was ineffective due to the agency's failure to properly enact the rule.

In light of our concerns, we respectfully urge the Committee to consider taking one of two approaches. First, the Committee could delete OAR 340-071-0130(2)(c) altogether. This would put the parties in the same position they occupied under the previous adopted rules, and it would not give any company an unfair economic advantage.

Alternatively, we suggest and recommend that the language of the rule be modified as follows:

- (1) modify OAR 340-071-0116, Section (4) as follows:

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. Such supplemental criteria may include but not be limited to the dimensional similarity and functional equivalency of a new or innovative technology or material determined by the Department to be consistent with those of any previously approved new or innovative technology or material. A prescriptive standard option for material used as a substitute for drain media is prescribed in Section (5) of this rule; and

Ms. Melinda S. Eden
July 13, 2000
Page 4

(2) modify proposed OAR 340-071-0130(2)(c) as follows:

Norwithstanding the provisions of subsections (2)(b) of this section, approvals granted by the Director for new or innovative technology or material prior to July 1, 1999, or which issue based upon supplemental criteria as described in OAR 340-071-0116(4), shall not expire until after the Department either establishes the performance criteria for a standard disposal trench, or determines the criteria can not be adequately quantified for use as a benchmark in establishing equivalent performance by a new or innovative technology or material.

In implementing the second alternative, the Commission will ensure a level playing field among all companies. Also, this type of a procedure will eliminate duplicative testing in the future. If one company has developed a new and innovative technology for an alternative on-site system that has been approved, it should not be necessary for other subsequent companies to complete the same testing.

If you have any questions or need any additional information, please do not hesitate to contact me. Thank you for your consideration of this matter.

Very truly yours,



Keith Shumate

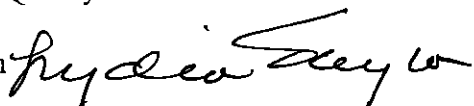
KS/cb

cc: Larry Edelman, Esq.
Mr. Dick Bachelder

State of Oregon
Department of Environmental Quality Memorandum

Date: June 12, 2000

To: Environmental Quality Commission

From: Langdon Marsh 

Subject: Agenda Item F, Proposed Changes to the Rule 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 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 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).

After proper notice, a rulemaking hearing was conducted on October 15, 1999. The public comment period was extended through November 5, 1999. A staff report and recommendation were presented to the Environmental Quality Commission at the November 19, 1999 meeting. After discussion, the Commission deferred taking final action to the December 20, 1999 meeting. At that time the Commission adopted rules covering this issue.

On February 11, 2000, the Department proposed adoption of a temporary rule to change the expiration date of new or innovative technology or material approvals previously granted by the Director, from March 1, 2000, to August 30, 2000. This action had an affect on the approvals for E Z Drain products and the Infiltrator Systems, Inc. EQ-24 product. The Commission adopted the temporary rule. In August, the temporary rule will expire; therefore it is important that the date be established through this rulemaking.

Approval was granted to initiate a permanent rulemaking to amend the rules establishing the review and approval criteria for new or innovative technologies and materials. Draft rules were presented and discussed with members of the Technical Review Committee. The committee recommended several changes. The Department prepared various rulemaking documents (Attachment B), including the Hearing Notice and informational materials, and mailed these to all known interested parties on April 14, 2000. Appropriate Notice and other documents were provided to the Secretary of State. After publication of Hearing Notice in the Secretary of State's Bulletin on May 1, 2000, a Public Hearing was held on May 15, 2000. Written comment was received until 5 PM on May 15, 2000. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing, and lists all the written comments received. Copies of the written comments are 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

Memo To: Environmental Quality Commission

Agenda Item F, Proposed Changes to the Rule Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program. June 12, 2000

Page 3

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 rule amendments to the rules establishing criteria for evaluation and approval of alternative on-site technologies and materials. The proposed amendments will clarify the flexibility in the written performance-based criteria to be used when reviewing and authorizing the use of innovative technologies and materials within on-site sewage treatment and disposal systems. The Department believes the amendments continue to comply with the Court order requiring 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)

Staff developed the draft rule amendment language and presented it to the Technical Review Committee on April 6, 2000. The draft was reviewed and extensively discussed by the committee. Committee members made many excellent suggestions that staff considered 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 amendment to OAR 340-071-0116(5)(b)(A) would change the formula within the prescriptive standard option that compensates for a loss in bottom surface area when the trench width is less than 24 inches wide. Although the proposed amendment to the formula was not included in the rulemaking notice, it was posted on the DEQ web site. The Technical Review Committee (TRC) recommended the formula be changed so that a loss in bottom area was compensated for by increasing the trench length and thereby increasing both the bottom and sidewall areas of the trench, but result in less bottom area than is required by the formula in the current rule. The proposed formula change would also result in a reduction in the liquid surge capacity of the system. The TRC did not discuss this aspect of the rule change. However, because the Notice was defective on this issue, the Department is no longer proposing to amend this rule.

The Department proposes to amend OAR 340-071-0116 by adding new language to section (3) of the rule, to allow protocol options acceptable to the Department that could be conducted in locations other than Oregon. The original proposal presented in the Notice would have located amendment language in OAR 340-071-0117, which establishes a protocol to follow when the testing to generate performance data is in Oregon. Staff believe the concept is most appropriately placed within the rule that establishes the requirement for equivalent performance. Any alternative protocol accepted must demonstrate compliance with any applicable DEQ established performance criteria.

The Department is also requesting that OAR 340-071-0130(2) be amended with two changes: the first establishes August 31, 2000 as the date previous approvals granted by the Director will expire, unless the manufacturer meets specific requirements that would delay the expiration for the approval. The Department has also proposed new language that would prevent the two current approvals from expiring until performance criteria for the standard disposal trench are established, or until it is determined the criteria can not be quantified for use as a benchmark in establishing equivalent performance for drain media substitutes. Manufacturers would have a reasonable time to demonstrate compliance with this alternative once the criteria are established. Although amendments to section 2 of this rule were not included or described in the Public Notice of Rulemaking, the Department believes changes must be included now to best respond to comments.

Other amendments to Section 130 clarify that special safeguards already within the rule are applied only when a manufacturer is allowed to reduce the length of disposal trenches during performance testing, and only with Department concurrence. Otherwise, installations using a drain media substitute that fully complies with the conditions within the Director's approval letter do not trigger the requirement for these safeguards.

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. Commenters suggested the Department must provide other options for determination of equivalent performance. The Department believes the intent of the current 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 companies to propose alternative evaluation processes.

Concerns were expressed that the previous approvals should be maintained while the affected manufacturers gain compliance for their products, or that they should be allowed to continue to market products without being required to submit a protocol to establish equivalence in performance. The Department is proposing rule language that would prevent the expiration of the two affected approval letters until the performance criteria for a standard trench is established, or until it is determined that it can not be adequately quantified for use as a benchmark in establishing performance equivalence.

It was suggested that the proposed amendment to OAR 340-071-0117 creating a performance equivalence option for drain media substitutes would limit the evaluations to Oregon because other portions of that rule required considerable involvement of the Department in the study. The Department agrees that it was erroneous to place the amendment language within a rule that was clearly intended to apply only to studies conducted in Oregon. The alternative performance protocols language was therefore placed into OAR 340-071-0116(3) and thereby allowing the data to be generated at locations other than in Oregon.

Several people expressed concern that several of the requirements in OAR 340-071-0130(2)(b)(B) are unreasonable, unwarranted and expensive, and should be deleted or modified. As a result, this portion of the rule is recommended to be amended by clarifying that these safeguard requirements are not triggered for systems that are installed in compliance with the Director's letter of approval.

Other significant comments and the Departments' responses are noted in Attachment D.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

The proposed rule amendments provide manufacturers of new or innovative technology or materials with more options in developing testing protocols to demonstrate equivalence in performance. Evaluations may be conducted in locations other than within Oregon. This should make it easier and cheaper for manufacturers to demonstrate their product's performance. The two manufacturers holding approval letters issued by the Director may continue to rely upon their approvals until the Department reaches conclusions about the performance criteria for a standard disposal trench, or they may select another option to keep their approvals in effect. If either of the manufacturers enters into the process of a performance evaluation, during the time the evaluation is in progress that manufacturer's product may continue to be used in accordance with its approval letter. The manufacturer is not required to have a written warranty or post a bond (or equivalent) for each system installed. However, systems installed with a reduction in trench length would require the warranty and bond, and land area for a full sized initial and replacement of the system would be required.

The amended rules would apply whenever a manufacturer of new or innovative technology or material wants to sell their product in Oregon. These amendments will establish in rule the flexibility to consider alternate means of demonstrating the effectiveness of a new technology or material.

Recommendation for Commission Action

It is recommended that the Commission adopt the proposed rule amendments as presented in Attachment A of the Department Staff Report.

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. Rule Implementation Plan

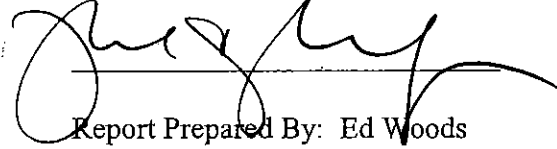
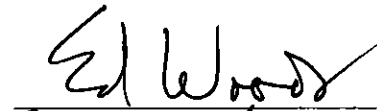
Reference Documents (available upon request)

Written Comments Received (listed in Attachment C)

Approved:

Section:

Division:



Report Prepared By: Ed Woods

Phone: (503) 229-5415

Date Prepared: June 2, 2000

Proposed Amendments to OAR Chapter 340, Division 71

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 340-071-0116 as follows:

OAR 340-071-0116 Review Criteria for New or Innovative Technology or Materials.

- (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 variabilities.

- (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, **or an alternative protocol having scientific merit that is acceptable to the Department.**
- (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:
- $$\text{Adjusted Trench Length} = (24 \text{ inches} \div W) \times L$$
- 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.

Stat. Auth.: ORS 454.625 & 468.020

Stats. Implemented: ORS 454.615; 454.775; 468.035 & 468.045

Hist.: DEQ 15-1999, f. & cert. ef. 12-29-99

Amend OAR 340-071-0130 as follows:

340-071-0130 GENERAL STANDARDS, PROHIBITIONS AND REQUIREMENTS

- (1) Public Waters or Public Health Hazards. If, in the judgment of the Agent, proposed operation of a system would cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized. If, in the judgment of the Agent, the minimum standards contained in these rules do not afford adequate protection of public waters or public health, the requirements shall be more stringent. This may include, but is not limited to, increasing setbacks, increasing drainfield sizing and/or utilizing an Alternative System. If the Agent imposes requirements more stringent than the minimum, the Agent shall provide the applicant with a written statement of the specific reasons why the requirements are necessary.
- (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 ~~March 11~~ **August 31**, 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 **testing or performance protocol** ~~criteria~~ described in OAR 340-71-~~0116(3)~~ ~~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. **If all the requirements in the approval letter are met except for those pertaining to trench length, with Department concurrence the trench length may be reduced** ~~and sized~~ according to the 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.
- (c) **Notwithstanding the provisions of subsection (2)(b) of this section, approvals granted by the Director for new or innovative technology or material prior to July 1, 1999, shall not expire until after the Department either establishes the performance criteria for a standard disposal trench, or determines the criteria can not be adequately quantified for use as a benchmark in establishing equivalent performance by a new or innovative technology or material.**
- (3) Discharge of Sewage Prohibited. Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters constitutes a public health hazard and is prohibited.

- (4) Discharges Prohibited. No cooling water, air conditioning water, water softener brine, groundwater, oil, hazardous materials, roof drainage, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into any system.
- (5) Increased Flows Prohibited. Except where specifically allowed within this division, no person shall connect a dwelling or commercial facility to a system if the total projected sewage flow would be greater than that allowed under the original system construction permit.
- (6) System Capacity. Each system shall have adequate capacity to properly treat and dispose of the maximum projected daily sewage flow. The quantity of sewage shall be determined from **Table 2** or other information the Agent determines to be valid that may show different flows.
- (7) Material Standards. All materials used in on-site systems shall comply with standards set forth in these rules.
- (8) Encumbrances. A permit to install a new system can be issued only if each site has received an approved site evaluation (OAR 340-071-0150) and is free of encumbrances (i.e., easements, deed restrictions, etc.) which could prevent the installation or operation of the system from being in conformance with the rules of this division.
- (9) Future Connection to Sewerage System. In areas where a district has been formed to provide sewerage facilities, placement of house plumbing to facilitate connection to the sewerage system shall be encouraged.
- (10) Plumbing Fixtures Shall be Connected. All plumbing fixtures in dwellings and commercial facilities from which sewage is or may be discharged, shall be connected to, and shall discharge into an approved area-wide sewerage system, or an approved on-site system which is not failing.
- (11) Property Line Crossed:
 - (a) A recorded utility easement and covenant against conflicting uses, on a form approved by the Department, is required whenever a system crosses a property line separating properties under different ownership. The easement must accommodate that part of the system, including setbacks, which lies beyond the property line, and must allow entry to install, maintain and repair the system;
 - (b) Whenever an on-site system is located on one lot or parcel and the facility it serves is on another lot or parcel under the same ownership, the owner shall execute and record in the county land title records, on a form approved by the Department, an easement and a covenant in favor of the State of Oregon:
 - (A) Allowing its officers, agents, employees and representatives to enter and inspect, including by excavation, that portion of the system, including setbacks, on the other lot or parcel; and
 - (B) Agreeing not to put that portion of the other lot or parcel to a conflicting use; and
 - (C) Agreeing that upon severance of the lots or parcels, to grant or reserve and record a utility easement, in a form approved by the Department, in favor of the owner of the lot or parcel served by the system.

- (12) Disposal and Replacement Area. Except as provided in specific rules, the disposal area, including installed system and replacement area shall not be subject to activity that would, in the opinion of the Agent, adversely affect the soil or the functioning of the system. This may include, but is not limited to, vehicular traffic, covering the area with asphalt or concrete, filling, cutting, or other soil modification.
- (13) Operation and Maintenance. All systems shall be operated and maintained so as not to create a public health hazard or cause water pollution. Those facilities specified in sections (15) or (16) of this rule as requiring a WPCF permit shall have operation and maintenance requirements established in the permit.
- (14) Construction. The Department or Agent may limit the time period a system can be constructed due to soil conditions, weather, groundwater, or other conditions which could affect the reliability of the system.
- (15) Operating Permit Requirements. The following systems shall be constructed and operated under a renewable WPCF permit, issued pursuant to OAR 340-071-0162:
 - (a) Any system or combination of systems located on the same property or serving the same facility with a total sewage flow design capacity greater than 2,500 gallons per day. Flows from single family residences or equivalent flows on separate systems need not be included;
 - (b) A system of any size, if the sewage produced is greater than residential strength wastewater;
 - (c) Holding tanks;

EXCEPTIONS: This requirement does not apply to septic tanks used as temporary holding tanks pursuant to OAR 340-071-0160(11), or to holding tanks described in OAR 340-071-0340(5).
 - (d) A system which includes a conventional sand filter as part of the treatment process that serves a commercial facility;
 - (e) A system which includes an aerobic treatment facility as part of the treatment process if:
 - (A) The system serves a commercial facility; or
 - (B) The system does not meet the requirements of OAR 340-71-0220 and 340-071-0345.
 - (f) Recirculating Gravel Filters (RGFs);
 - (g) Other systems that are not described in this division, that do not discharge to surface public waters.
- (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) 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.

- (17) Perpetual Surety Bond Requirements. Pursuant to Oregon Revised Statutes (ORS) 454.425 and OAR Chapter 340, Division 015, a perpetual surety bond, or approved alternate security, in the amount of \$1.00 per gallon per day installed sewage disposal capacity, shall be filed with the Department by any person proposing to construct or operate facilities for the collection, treatment, or disposal of sewage with a design capacity of 5,000 gallons per day or more.
- (a) Exemptions From the Surety Bond Requirements:
- (A) Systems serving only food handling establishments, travel trailer accommodations, tourist and travelers facilities, or other development operated by a public entity or under license issued by the State Health Division. (Systems which serve both licensed facilities and unlicensed facilities require a surety bond if the portion requiring a Health Division license has a design capacity of 5,000 gallons per day or more);
 - (B) Systems owned and operated by a state or federal agency, city, county service district, sanitary authority, sanitary district, or other public body;
 - (C) Systems serving the sewerage needs of industrial or commercial operations where there are no permanent residences.
- (b) Alternate Security: The approved forms of alternate security are specified in OAR 340-015-0020.
- (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 340-71-140(5).
- (19) Variances for WPCF Permits. The variance procedures established in this division do not apply to systems permitted by WPCF Permit.
- (20) Engineering Plan Review. Pursuant to ORS 468B.055, unless specifically exempted by rule, all plans and specifications for the construction, installation or modification of disposal systems, shall be submitted to the Department for its approval or denial pursuant to rules of the Commission. The design criteria and rules governing the plan review are as follows:
- (a) For on-site systems which do not require a WPCF permit, the rules and design criteria for construction are found in this division. Construction standards for certain manufactured items are found in OAR Chapter 340, Division 073;
 - (b) For on-site systems which require a WPCF permit, the criteria in this division shall be used. However, the Department may allow variations of the criteria and/or technologies, when the applicant or Department has adequate documentation of successful operation of that technology or design. The burden of proof for demonstrating new processes, treatment systems, and technologies that the Department is unfamiliar with, lies with the system designer. The Department shall review all plans and specifications for WPCF permits pursuant to procedures and requirements outlined in OAR Chapter 340, Division 052.

- (21) **Manufacturer's Specifications.** All materials and equipment, including but not limited to tanks, pipe, fittings, solvents, pumps, controls, valves, etc. shall be installed, constructed, operated, and maintained in accordance with manufacturer's minimum specifications.
- (22) **Sewer and Water Lines.** Effluent sewer and water line piping which is constructed of materials which are approved for use within a building, as defined by the current Oregon State Plumbing Specialty Code, may be run in the same trench. Where the effluent sewer pipe is of material not approved for use in a building, it shall not be run or laid in the same trench as water pipe unless both of the following conditions are met:
- (a) The bottom of the water pipe at all points shall be set at least 12 inches above the top of the sewer pipe;
 - (b) The water pipe shall be placed on a solid shelf excavated at one side of the common trench with a minimum clear horizontal distance of at least 12 inches from the sewer pipe.
- (23) **Septage Disposal.** No person shall dispose of sewage, septage (septic tank pumpings), or sewage contaminated materials in any location not authorized by the Department under applicable laws and rules for such disposal.
- (24) **Groundwater Levels.** All groundwater levels shall be predicted using "Conditions Associated With Saturation" as defined in OAR 340-071-0100. In areas where conditions associated with saturation do not occur or are inconclusive, such as in soil with rapid or very rapid permeability, predictions of the high 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.

Stat. Auth.: ORS 454.625 & 468.020

Stats. Implemented: ORS 454.615, 454.655, 454.695, 468B.050, 468B.055 & 468B.080

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 9-1984, f. & ef. 5-29-84; 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; DEQ 15-1999, f. & cert. ef. 12-29-99

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING*
 A Statement of Need and Fiscal Impact accompanies this form.

Oregon Department of Environmental Quality, Water Quality Division			340
Agency and Division		Administrative Rules Chapter Number	
Susan Greco		503-229-5213	
Rules Coordinator		Telephone	
811 SW Sixth Avenue, Portland, OR 97204			
Address			
Hearing Date	Time	Location	Hearings Officer
May 15, 2000	9:00 am	Oregon DEQ 811 SW 6th Ave, Portland Conference Room 10	Sherman Olson
Hearing Date	Time	Location	Hearings Officer
Hearing Date	Time	Location	Hearings Officer

- Are auxiliary aids for persons with disabilities available upon advance request? Yes No

RULEMAKING ACTION

ADOPT:

Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

AMEND: Rules in Chapter 340 Division 71.

REPEAL:

Renumber: Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

Amend and Renumber: Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

ORS 454.625 and ORS 468.020

Stat. Auth.: ORS

Other Authority

ORS 454.115, ORS 454.625, ORS 454.775, ORS 468.020, ORS 468.045, ORS 468B.015, ORS 468B.020

Stats. Implemented: ORS

RULE SUMMARY

To clarify the flexibility in the written performance-based 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. It would also alter the formula for calculating trench length if the trench width deviates from the standard foot trench width.

May 15, 2000

Last Day for Public Comment

Sherman Olson 5/12/00
 Authorized Signer and Date

Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING
A Statement of Need and Fiscal Impact accompanies this form.

DEQ – Water Quality

Agency and Division

Administrative Rules Chapter Number

Susan M. Greco

(503) 229-5213

Rules Coordinator

Telephone

811 S.W. 6th Avenue, Portland, OR 97213

Address

Hearing Date	Time	Location	Hearings Officer
<u>May 15, 2000</u>	<u>9:00 am</u>	<u>811 SW Sixth Portland Room 10</u>	<u>Sherman Olson</u>

Are auxiliary aids for persons with disabilities available upon advance request?

X Yes No

RULEMAKING ACTION

AMEND:

OAR 340-71-0116 & 0117

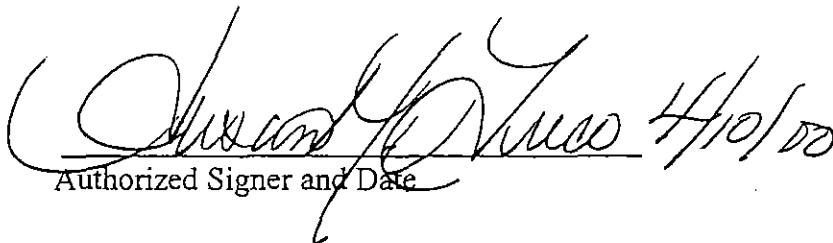
Stat. Auth.: ORS

Stats. Implemented: ORS

RULE SUMMARY

May 15, 2000

Last Day for Public Comment



Authorized Signer and Date

Secretary of State
STATEMENT OF NEED AND FISCAL IMPACT
A Notice of Proposed Rulemaking Hearing or a Notice of Proposed Rulemaking accompanies this form.

OR Department of Environmental Quality, Water Quality

OAR 340

Agency and Division

Administrative Rules Chapter Number

In the Matter of Proposed Changes to the)
Rule Establishing Review and Acceptance)
Criteria for New or Innovative)
Technologies and Materials Application)
in the On-Site Program under OAR)
Chapter 340, Division 71.

Statutory Authority,
Statutes Implemented,
Statement of Need,
Principal Documents Relied Upon,
Statement of Fiscal Impact

Statutory Authority: ORS 454.625 and ORS 468.020

Other Authority:

Statutes Implemented: ORS 454.115, ORS 454.625, ORS 454.775, ORS 468.020, ORS 468.045, ORS 468B.015 and ORS 468B.020

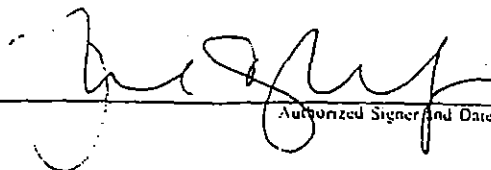
Need for the Rule(s): The rules adopted on December 29, 1999 included a deadline for the two companies holding previous approvals. These companies were required to submit testing programs meeting the rules by March 1, 2000. At the request of one of the companies, the Environmental Quality Commission adopted a temporary rules extending the deadline to August 31, 2000.

Documents Relied Upon: No documents were used however, the rules was developed by DEQ technical staff, with input from members of the Technical Review Committee and other interested persons.

Fiscal and Economic Impact: 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 cannot 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.

Administrative Rule Advisory Committee consulted?: Technical Review Committee

If not, why?:

 4/14/00

Authorized Signer and Date

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 in rule the flexibility available to evaluate new on site products for sale in Oregon. It would also alter the formula used to calculate trench length when the width varies from the standard 2 foot wide trench. Specific criteria for evaluating materials designed to be used in-lieu-of drain media are included in the proposal.

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 are being requested on modifications of the rules for evaluating new products or technologies. Previous approvals would be void after the review if the material is not in compliance, or modified if in compliance. Previous approvals would be maintained while the technologies or materials either gain compliance with the prescriptive standard or enter into a performance evaluation by August 31, 2000.

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 fee has been implemented 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 Department's 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 clarify the flexibility in 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.

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 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? 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

Date

ATTACHMENT C

**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: April 6, 2000

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements --Proposed Changes to the Rule 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 clarify the flexibility in the written performance-based 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. It would also alter the formula for calculating trench length if the trench width deviates from the standard 2 foot trench width.

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).

Hearing Process Details

Memo To: Interested and Affected Public
September 15, 1999
Page 2

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: May 15, 2000
Time: 9:00 a.m.
Place: Oregon Department of Environmental Quality
811 SW Sixth
Portland, Oregon
Conference Room 10

Deadline for submittal of Written Comments: May 15, 2000

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. 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 July 13 and 14, 2000. This date may be delayed if needed to provide

Memo To: Interested and Affected Public
September 15, 1999
Page 3

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.

Memo To: Interested and Affected Public
September 15, 1999
Page 4

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 was compelled to establish standards for review and evaluation of new or innovative technologies and materials. Rules establishing these standards were adopted and effective on December 29, 1999.

The rules adopted on December 29, 1999 included a deadline for the two companies holding previous approvals. These companies were required to submit testing programs meeting the rules by March 1, 2000. At the request of one of the companies, the Environmental Quality Commission adopted a temporary rule extending the deadline to August 31, 2000.

During the extension period, the DEQ has engaged the Technical Review Committee in a review of the innovative technology rules to identify improvements to the rules. The TRC met twice and made recommendations for improvements. This public hearing is intended to solicit input from the public regarding the proposed rules that would incorporate the TRC recommendations.

How was the rule developed?

The rule was developed by DEQ technical staff, with input from members of the Technical Review Committee and other interested persons.

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

Memo To: Interested and Affected Public
September 15, 1999
Page 5

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 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?

Upon adoption of the proposed rule changes, the two previously approved products would have to submit testing proposals by August, 31, 2000. Previous approvals would be void if testing proposals were not submitted by August 31, 2000. The approvals would also be void after the review if the material is not in compliance, or modified if in compliance.

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.

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.

Memo To: Interested and Affected Public
September 15, 1999
Page 6

Are there time constraints?

For the two companies that have previous approvals, those approvals would be void if they have not submitted testing proposals by August 31, 2000 when the temporary rule expires.

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: May 18, 2000

To: Environmental Quality Commission

From: Sherman O. Olson, Jr.

Subject: Presiding Officer's Report for Rulemaking Hearing
 Hearing Date and Time: May 15, 2000, beginning at 9 am
 Hearing Location: Department of Environmental Quality
 811 SW Sixth Avenue
 Portland, Oregon
 Conference Room 10

Title of Proposal: Proposed Changes to the Rule 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 9:07 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.

Two (2) people were in attendance, both signed up to give testimony, however one declined to offer testimony when asked to do so.

Prior to receiving testimony, the Presiding Officer presented the hearing protocols and briefly explained the rulemaking proposal. There were no questions from those in attendance.

Summary of Oral Testimony

Alex Mauck, E-Z Drain Co.: He encourages the Department to modify the existing rules to provide a commitment to develop effective and cost-efficient performance protocol other than what had been previously proposed. He thinks that the proposed language in OAR 340-071-0117(10)(i) may be headed in that direction. The Department will have the ability to look at what has gone on in other states, or other studies, so that businesses will not have to go through expensive testing. Under the existing rule language in this rule, Mr. Mauck states that his company estimates it would cost 1 million to 1.5 million dollars to do a study, and that the cost to Infiltrator Systems would be around three hundred thousand dollars. These costs are not acceptable. He recommends the Department amend the rule so that the current approved products, such as those from E Z Drain and Infiltrator Systems, would not lose their approvals by August 1st if a performance protocol is not submitted. Both products have performed admirably since they were approved in 1995. Mr. Mauck submitted a letter addressed to Director Langdon Marsh from The Honorable Ted Ferrioli, Oregon State Senator. Mr. Mauck states the letter summarizes the verbal testimony he offered. The letter is attached to this report.

Written Testimony Offered at the Rulemaking Hearing

No written testimony was received during the public rulemaking hearing.

There was no further testimony and the hearing was closed at approximately 9:45 am.

TED FERRIOLI
State Senator
DISTRICT 28



OREGON STATE SENATE
SALEM, OREGON
97310

Committee:
Chair
Vice-Chair
Co-Chair
Member
Co-Chair
Subcommittee
Member
Agriculture and Natural Resources
Water and Land Use
Ways and Means
Subcommittee

Office:
S-216 State Capitol
Salem, OR 97310
(503) 986-1728

District:
150 W Main Street
John Day, OR 97845
(541) 575-2121

Mr. Langdon Marsh-Director
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

May 2, 2000

Dear Mr. Marsh,

Thank you for the courtesy copy of your letter to the Joint Interim Committee on Water, Agriculture and Natural Resources. I sincerely appreciate the time you and Deputy Director Lydia Taylor have devoted to this issue. I am confident that concerns raised by Mr. Alex Mauck can be resolved.

In my mind, there are two distinct issues at play in this situation: One, the issue of fairness, which the court indicates rises to the level of constitutionality, and the other, an issue of public policy; whether it is desirable to have state agencies set "Oregon" standards for products that are licensed for sale and generally available in most, if not all other states.

In the first regard, the court found that DEQ had failed to apply standards objectively, not that DEQ failed to apply an objective standard. There is a significant difference in this interpretation, since DEQ's failure to apply standards objectively is the basis for Mr. Mauck's successful lawsuit, and the reason his complaint rises to the level of constitutionality.

The Department has interpreted the ruling to mean it should revisit the issue of objective standards, leading it to enter into an expensive, and in my mind, unnecessary process of additional rulemaking which would involve testing of products that have already proven their effectiveness in applications in Oregon and throughout the nation.

Again, to my mind, this is an unnecessary investment of human and financial resources that can better be allocated to the important and more pressing work of the Department.

From a public policy standpoint, I believe it is neither necessary nor desirable to subject new technologies to an "Oregon" testing standard. It will be far more cost effective and efficient for the department to require proponents of new technologies to bring forth standards approved by third-party testing laboratories like the Society of American engineers (SAE), Underwriters' Laboratories (UL) or any number of independent testing

laboratories, universities or professional societies of national reputation, impeccable qualifications and proven record of performance.

I would never suggest, nor would I support any policy that weakens DEQ's commitment to public health and safety.

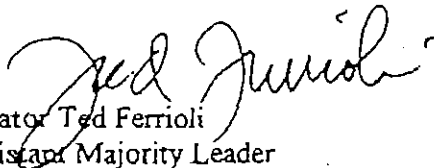
Neither can I condone, nor support agency actions that are arbitrary, unfair, overly burdensome or redundant.

In this instance, common sense indicates that similar products having similar application and function should be subject to the same standards for approval. Neither company should be placed at a competitive advantage or disadvantage. Standards should be set by the manufacturer, tested and approved by independent third-party authority, and adopted by state agencies in a public process.

Such an approach will vastly simplify the adoption of new standards for new technology; keep the burden where it belongs, on the applicant; provide assurance that the public health goals of DEQ will be met; and maintain Oregon's "User-friendly" posture relative to new technology.

Thank you for your consideration in this matter. I will welcome your continued involvement in resolution of this issue, not only because it involves my constituents, but because it helps illuminate an area of public policy involving new technology that is certain to reoccur.

Sincerely,



Senator Ted Ferrioli
Assistant Majority Leader

CC: Dave Bartz
Alex Mauck
Paul Cosgrove
Senator Veral Tarnow-Chairman JLC Water & Land
Representative Jeff Kropf
President Brady Adams
Speaker Lynn Snodgrass
Ray Kelly-Administrator JLC Water & Land

List of Persons Providing Comment during the Public Comment Period

- A) Alex Mauck, E Z Drain Co. Mr. Mauck attended the hearing and provided both oral testimony and a copy of a letter from Sen. Ted Ferrioli to Director Langdon Marsh, dated May 2, 2000;
- B) David R. Bartz, Jr., Schwabe Williamson & Wyatt P.C., representing E Z Drain Company. Mr. Bartz submitted a letter containing written comment on the proposed rulemaking, dated and received May 15, 2000, with the following attachments:
- 1) 12/9/99 letter from Mr. Bartz to the Environmental Quality Commission, identified as Letter No. 1;
 - 2) 12/9/99 letter from Mr. Bartz to the Environmental Quality Commission, identified as Letter No. 2;
 - 3) 12/9/99 letter from Mr. Bartz to the Environmental Quality Commission, identified as Letter No. 3;
 - 4) 9/7/99 letter from Mr. Bartz to Mr. Larry Edelman;
 - 5) 7/19/99 Judgment and Order from Circuit Court Judge Linda L. Bergman
 - 6) 12/9/99 Spreadsheet, Estimated Costs for Performance Evaluation;
 - 7) 12/9/99 Spreadsheet, Estimated Costs for Performance Evaluation;
 - 8) 12/9/99 Spreadsheet, Estimated Costs for Performance Evaluation;
 - 9) 4/25/00 letter from Mr. Bartz to Sen. Veral Tarno and Rep. Jeff Kropf;
 - 10) 1/21/00 letter from 70th Legislative Assembly Joint Interim Committee on Water, Agriculture and Natural Resources to Director Langdon Marsh.
- C) Michael R. Campbell, Stole Rives LLP, representing Infiltrator Systems, Inc. Mr. Campbell submitted a letter containing written comment on the proposed rulemaking, dated and received May 15, 2000.

Department's Evaluation of Public Comment

COMMENT: One commenter (#1) expressed the opinion that the Department should renew its investigation and development of alternative tests and protocols, and provide rulemaking language to allow for that on-going development.

RESPONSE: The Department's intentions to revisit and improve upon the rule language for performance test protocols have been clearly stated since the efforts to establish the protocols began last year. This rulemaking is an example that supports this intent.

COMMENT: One commenter (#1) expressed the opinion that the Department should change the rule (OAR 340-071-0130) to allow E-Z Drain Co. and Infiltrator Systems, Inc. to continue to market the products which are currently approved without a requirement to submit a performance protocol proposal by August 31, 2000.

RESPONSE: In this rulemaking, the Department has proposed an amendment to this rule that would stay the expiration of the approvals granted by the Director until such time as the Department either establishes the performance criteria for a standard disposal trench, or determines the criteria can not be adequately quantified for use as a benchmark in establishing equivalent performance by new or innovative technology or material.

COMMENT: One commenter (#1) expressed the opinion that the prescriptive standard in OAR 340-071-0116 (4) and (5), as it requires that alternative products fill the trench from side-to-side and top-to-bottom with drain media, is unnecessary and unreasonable.

RESPONSE: This is one of several options for obtaining product approvals. Applicants should review all the factors before choosing the option best suited for their product.

COMMENT: One commenter (#1) expressed the opinion that the Department was not fair to E-Z Drain Company when the EQ-24 product was approved, and that it would be inappropriate for the Department to consider and allow a performance study using the systems that were installed under that approval.

RESPONSE: The purpose of the rule revisions is to allow new technologies to demonstrate their effectiveness relative to the performance of the state standard. Since both products will need to be reevaluated, past inequities, if any, are irrelevant. The Department intends to provide several options for new technologies to gain approval for use in Oregon and any of these options could be used by either company having a previous approval.

COMMENT: Two commenters (#1 and #3) expressed the opinion that the current performance protocol is too expensive.

RESPONSE: The Department intends to provide several options for new technologies to gain approval for use in Oregon. The applicant may choose any of the options after considering cost and other factors.

COMMENT: One commenter (#1) expressed the opinion that the Department should not require that the two companies with Director-granted approvals to submit a performance protocol testing proposal until after the Department completes its development of an effective and reasonable performance protocol.

RESPONSE: The Department has proposed an amendment that would provide for this option until either the performance criteria for the standard disposal trench is established, or until it is determined the criteria can not be adequately quantified for use as a benchmark in establishing equivalent performance by new or innovative technology or material.

COMMENT: One commenter (#2) expressed the opinion that OAR 340-071-0130(2)(b)(B) should be clarified in that the submission of a performance evaluation protocol for the Department's approval needs to be required in order to be considered as "in the process of evaluation".

RESPONSE: The Department has modified this rule to add clarity to this option.

COMMENT: One commenter (#2) expressed the opinion that the proposed new subsection (10)(i) in OAR 340-071-0117 would create an alternative only to the specific field study requirements for drain media, but would still require compliance with sections (1) through (9) of the rule. However, portions of these sections are premised on an evaluation of systems to be installed in the future in Oregon.

RESPONSE: The Department agrees on this comment, and has elected not to make amendments to the rule at this time. The concept of the proposal was determined by staff to be better located within OAR 340-071-0116(3), thus providing other options to establish equivalent performance for drain media substitutes that are not connected directly to OAR 340-071-0117.

COMMENT: One commenter (#2) expressed the opinion that OAR 340-071-0116 should contain language clearly stating that performance evaluations may be based on an evaluation of previously installed systems.

RESPONSE: The Department has proposed an amendment to this rule that would allow submittal of an alternative protocol that demonstrates statistically equivalent or better performance when compared to performance criteria to be established by the Department for a standard disposal trench.

COMMENT: One commenter (#2) expressed the opinion that the proposed amendment to OAR 340-071-0116(5)(b)(A), modifying the formula for adjusted trench length, the “W” factor needs to be in units of feet instead of inches.

RESPONSE: The Department agrees that the formula should be expressed in appropriate units. The change in the formula included in the draft rules is not included in the rules recommended for adoption for both technical and administrative reasons.

COMMENT: One commenter (#2) expressed the opinion that the adoption of an alternative performance process should be accompanied by elimination of the authorization in OAR 340-071-0130(2)(b)(B) to install previously approved drain media substitutes at the manufacturer’s recommended size, to be replaced with language for sizing only as approved by the Department. To allow products to be installed at sizes that have not been approved by the Department is inconsistent with ORS 454.615.

RESPONSE: Only 2 companies have previous approvals subject to this section. If those companies want to test their product at sizes other than approved by the Department, this section defines the assurances the company must make to protect the public.

COMMENT: One commenter (#2) expressed the opinion that the phrase “and sized according to appropriate manufacturer’s recommendation with Department concurrence,” should be removed from OAR 340-071-0130(2)(b)(B).

RESPONSE: The Department is recommending this rule language be amended to provide that if a manufacturer proposes to reduce the trench length otherwise required with the use of drain media, the manufacturer must otherwise comply with all conditions within the Director's pre-July 1, 1999 approval letter (except for those pertaining to trench length), must be in the process of a performance/testing evaluation consistent with OAR 340-071-0116(3), and must comply with other safeguards before concurrence would be granted.

COMMENT: One commenter (#2) expressed the opinion that the Department's rules should continue to allow previously approved or new products (including new product sizes) to be approved through a scientifically sound, peer-reviewed performance evaluation process approved by the Department.

RESPONSE: The proposed rules provide several options for product approval, including a performance evaluation process.

COMMENT: One commenter (#2) expressed the opinion that the requirements contained in OAR 340-071-0130(2)(b)(i) through (iii) are burdensome restrictions that should be eliminated or modified. If modified, they should more clearly reflect the actual likelihood of harm associated with the continued installation.

RESPONSE: These requirements intended to protect property owners using the experimental technology while it is being tested. If the technology does not perform adequately, the property owner should not bear the cost of repair or replacement of the system.

COMMENT: One commenter (#2) expressed the opinion that if the Department uses the Environmental Technology Verification (ETV) program, or a similar process, to evaluate performance, it is likely that existing rules would require amendment to clarify that previously approved products engaged in that process may continue to be installed in Oregon. The commenter suggested that OAR 340-071-0130(2)(b)(B) be amended to allow previous product approvals to remain in force without a performance evaluation.

RESPONSE: The proposed rules allow existing approvals to remain in force while the Department defines the performance of the standard rock filled trench.

COMMENT: One commenter (#2) expressed the opinion that retention of the requirements set forth in OAR 340-071-0130(2)(b)(B)(i) through (iii), for previously approved systems pending completion of a performance evaluation, could

impose substantial additional costs on these systems, thus have a very substantial effect on housing costs in Oregon.

RESPONSE: The Department is recommending amendments to this portion of the rule to clarify that these provisions only apply to installations that employ reductions in trench length, and only while the performance study is in progress.

COMMENT: One commenter (#3) expressed the opinion that the Department amend OAR 340-071-0130(2)(b) so that current approved products would not lose their approvals by August 1st if a performance protocol is not submitted.

RESPONSE: The Department has proposed an amendment to this rule that would delay the expiration date for the affected Director-granted approvals.

COMMENT: One commenter (#3) expressed the opinion that existing rules be modified to provide for an efficient and cost-effective performance protocol.

RESPONSE: The Department is proposing an amendment that offers other options. The manufacturer may choose any of the options after considering cost and other factors.

Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment

Proposed Rule (Attachment A)

OAR 340-071-0116 Review Criteria for New or Innovative Technology or Materials.

- (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, or an alternative protocol having scientific merit that is acceptable to the Department. An alternative protocol must demonstrate statistically equivalent or better performance when compared to performance criteria to be established by the Department for the standard disposal trench installed consistent with OAR 340-071-0220.

Hearing Proposal:

OAR 340-071-0117 Performance Evaluation of New or Innovative Technology or Materials.

- (10)(i) If an alternative test protocol is proposed that complies with criteria (1)-(9) of this section, the Department may approve the protocol if it finds that the proposal is scientifically valid and will provide data addressing the two climatic regions and three common soil types in Oregon.

Reason:

After review, staff believed the proposal to provide the option for alternative performance protocols is better to be located in the rule that requires a performance evaluation, rather than located in the rule developed for performing the study in Oregon. This new option clearly opens the door for consideration of scientifically based performance evaluations conducted in other places besides Oregon.

Proposed Rule (Attachment A)

OAR 340-071-0116

- (5)(b)(A) The Department is no longer proposing an amendment to this paragraph of the rule.

Hearing Proposal

OAR 340-071-0116

- (5)(b)(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:

$$\text{Adjusted Trench Length} = \underline{\hspace{2cm}}$$

Where:

W = the reduced trench width in inches;

L = the original trench length as specified in paragraph (5)(b)(F) of this rule.

Reason: The Department finds the notice of intended action on this proposed amendment was defective. Therefore, proposed amendments to this paragraph of the rule are withdrawn.

Proposed Rule (Attachment A)

OAR 340-071-0130(2)

- (b) On ~~March 1~~ **August 31**, 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 testing or performance protocol ~~for criteria~~ described in OAR 340-71-~~0116(3)~~ ~~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. If all the requirements in the approval letter are met except for those pertaining to trench length, with Department concurrence the trench length may be reduced ~~and sized~~ according to the 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.

- (c) Notwithstanding the provisions of subsection (2)(b) of this section, approvals granted by the Director for new or innovative technology or material prior to July 1, 1999, shall not expire until after the Department either establishes the performance criteria for a standard disposal trench, or determines the criteria can not be adequately quantified for use as a benchmark in establishing equivalent performance by a new or innovative technology or material.

Hearing Proposal and Reason:

The Department did not originally propose amendments to this rule. However, public comment included many recommendations that changes be made to this rule. In addition, the proposed rule amendments to OAR 340-071-0116(3) opens the door for consideration of other evaluation protocols to establish equivalent performance, and to be of value to the two companies holding approvals (granted prior to July 1, 1999), modifications to this rule are necessary. The expiration date for these prior approvals was modified through adoption of a temporary rule by the Commission earlier this year, to allow time for each company additional time to submit a performance testing protocol, and thereby cause the company's approval to not expire for the duration of performance evaluation. Because a temporary rule is valid only for a maximum of 180 days before it expires, it is necessary to establish the date through a permanent rulemaking.

Language in paragraph (2)(b)(B) of the rule was modified to clarify that trench length reduction could be considered and allowed provided several safeguard requirements were met. However, the safeguard requirements would not apply to installations that comply fully with the Director's approval letter while the performance evaluation was underway.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Revisions to On-Site Innovative Technology Rules

Rule Implementation Plan

Summary of the Proposed Rule

The Department is proposing amendments to existing rules that establish performance-based and prescriptive standards to be used when reviewing and authorizing new or innovative technologies and materials for use within on-site sewage treatment and disposal systems. These amendments will establish in rule the flexibility to consider alternate means of demonstrating the effectiveness of a new technology.

Proposed Effective Date of the Rule

Approximately August 1, 2000

Proposal for Notification of Affected Persons

Copies will be sent to the 2 immediately affected businesses. The rule changes will be included in copies of rules including the on line version.

Proposed Implementing Actions

None Required


Proposed Training/Assistance Actions

None Required

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 26, 2000

To: Environmental Quality Commission
From: Langdon Marsh, Director 
Subject: Agenda Item G, Public Participation Procedures for Permit Decisions, EQC Meeting: July 14, 2000

Background

In 1998 the Division Administrators asked staff to address some concerns regarding the Department's process of public participation in permitting decisions. An internal work group was composed of regional and program staff, public affairs and the Director's office. Of particular concern to the group was how to involve the public earlier in the permit development process for those permits that are of great environmental concern. On the other hand, there are certain situations where a streamlined process is appropriate including renewals with no change or administrative changes. Another source of concern and frustration for staff is that many issues raised by the public are issues we have no authority to address. The workgroup felt that the public not only wants to review the permit record, they want to have a real opportunity for input into the decision. The current process does not allow enough time for the detailed review and comment preparation that is necessary for this to occur.

The work group developed a system of categories that would provide increased public participation depending on the anticipated level of public concern, potential environmental harm and legal requirements regarding the permit action. The lowest category will include those permit actions over which the Department has no discretion and has no environmental impact; the highest category includes new major sources or a major modification to that source. Additionally the Department retained the discretion to 'bump' a source to a higher category based on anticipated public interest in the source, the compliance and enforcement history of the facility or owner, or the potential for significant environmental or public harm due to the location or type of facility.

The categories were developed to require more public participation earlier in the process on 'major' permitting decisions (See Attachments A and B). The highest category requires the Department to conduct a community involvement meeting prior to the drafting of the permit and to create an information repository in the community where the facility will be located. This earlier public process will help ensure communication between the community, the applicant and the Department which is critical to defining issues, identifying options and fostering a sense of cooperation between each of these parties.

In 1999, the Department convened an advisory committee to review the Department's proposed category process. The advisory committee was composed of representatives of each permit

Memo To: Environmental Quality Commission

Agenda Item G, Public Participation Procedures for Permit Decisions, EQC Meeting: July 14, 2000

Page 2

program along with environmental and public interest groups (See Attachment D). The advisory committee spent approximately 75% of its time discussing the content of the Department's public notices and how we could be more effective in communicating with the public. They felt that the Department was not doing a good job of explaining to the public what the Department needs to make its decision. They worked extensively on what elements should be included in the notice to provide the public with the information it needs to prepare comments on draft permits and how the Department could improve its public notices by writing in a less technical manner. The advisory committee developed approximately 20 elements - some of which are beyond the Department's current capabilities. Others may only be appropriate for certain types of permits. The Department made the commitment to require 12 elements in its rules and discuss the remaining elements in guidance (see Attachment C). Additionally they suggested that the Department develop a pamphlet on how to prepare effective public comments.

Summary of Public Input Opportunity

An advisory committee met 4 times in 1999 and 2000 to work on the category process. The advisory committee spent the majority of their time discussing how the Department could improve its public notices to better inform the public. Of particular concern was the lack of clear information on what the Department has the authority to address and what is beyond the scope of the permit. They felt that information on environmental or health impacts of the source needs to be related to the public in a way that is understandable.

Intended Future Actions

Public Affairs is currently working on revising the Public Notice and Involvement Guide to reflect the changes in the public process. They are also creating templates for more understandable permit notices and creating a pamphlet on how to provide the Department with effective public comments.

The Department will be issuing the public notice on the proposed rule changes in mid-July. The hearing to take comments on the proposed rules will be on August 23 at 1:00 p.m. Written comments will be accepted through the end of August. The Department intends to bring the final rule adoption package to the Commission at the end of September.

Attachments

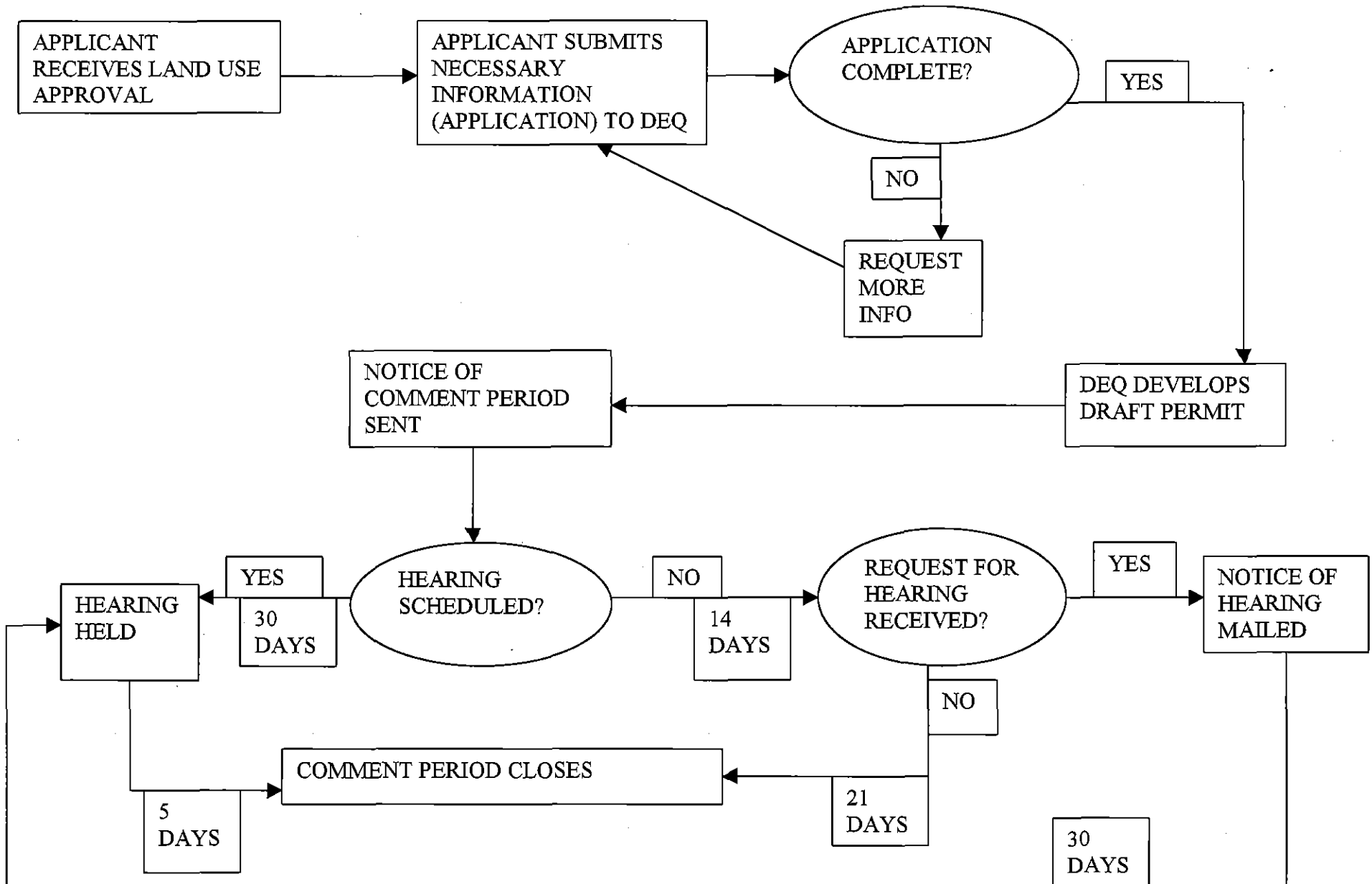
- A. Category Elements
- B. Flowcharts of Category 3 and Category 4
- C. Elements of a Public Notice
- D. Advisory Committee Members

Report Prepared By: Susan M. Greco
Phone: (503) 229-5213
Date Prepared: June 26, 2000

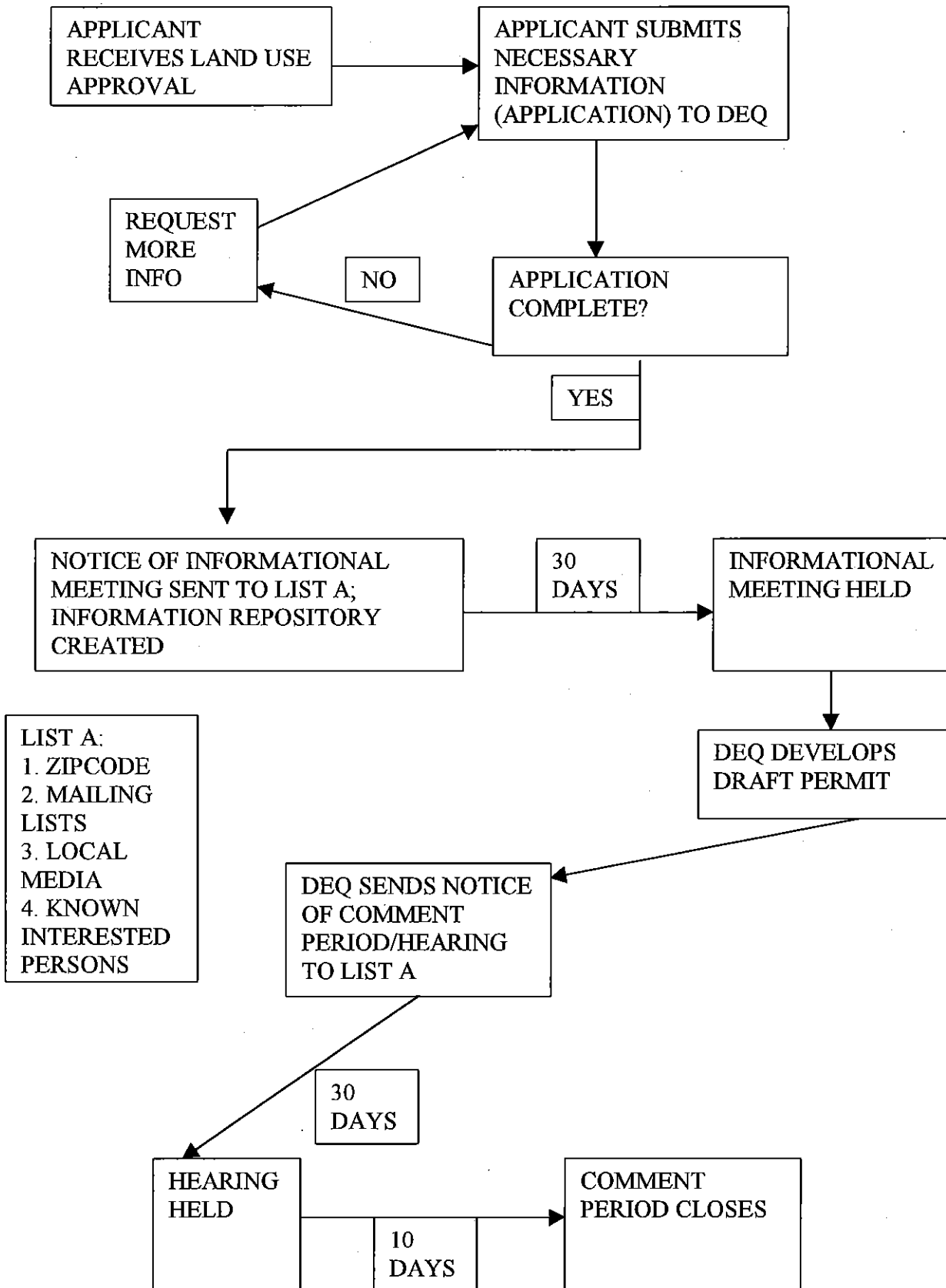
CATEGORY ELEMENTS

CATEGORY I	CATEGORY II	CATEGORY III	CATEGORY IV
No notice prior to developing draft permit	No notice prior to developing draft permit	No notice prior to developing draft permit	Notice sent prior to developing draft permit
			30 day notice of informational meeting (question/answer session)
No notice sent of draft permit	Notice of draft permit sent	Notice of draft permit sent	Notice of draft permit sent
No written comment period	30 day written comment period	35 day written comment period	40 day written comment period
No hearing	No hearing	Hearing at request of 10 people or automatically scheduled	Automatic hearing with question/answer session immediately prior to hearing
		30 day notice of hearing	30 day notice of hearing
		Written comments accepted for 5 days following hearing	Written comments accepted for 10 days following hearing

CATEGORY 3



CATEGORY 4



ELEMENTS OF A PUBLIC NOTICE

Elements Required for all Public Notices

1. Name and address of applicant and location of the facility
2. Type and duration of the permit
3. Type of facility including a description of the facility's process subject to the permit
4. Description of permitted substances stored, disposed of, discharged or emitted
5. The location and description of the documents used in preparing the draft permit
6. Other permits required by the Department
7. What opportunities exist for public comment, whether in writing or in person
8. Status of land use decisions regarding the facility, if applicable,
9. Name, address and telephone number of contact person from whom further information may be obtained
10. What additional information would be helpful to the Department in making a final decision on the draft permit.

Additional Elements Required for Permit Modifications or Renewals

1. Description of changes in facility's process and permitted substances stored, disposed of, discharged or emitted by the facility since the last permit
2. Date of previous permit
3. Compliance, enforcement and complaint history since last permit

Elements to be Included in Notice on as Available and Appropriate Basis

1. How discharges/emissions/substances stored are measured and when the measurements were obtained
2. Other facilities owned by the same owner
3. Relation of emissions/discharges/health effects to common sources or other facilities in the area
4. Summary of health effects of pollutants
5. Summary of current air/water quality and impact this facility will have
6. What emissions/discharges/functions of the source cannot be regulated by the Department
7. Cumulative impacts of all sources within air/watershed
8. Mapping of all similar permits within the area and total emissions/discharges from all facilities in the area
9. Analysis of discretionary decisions/assumptions in the permit

PERMIT PUBLIC PARTICIPATION
ADVISORY COMMITTEE MEMBERS

Bob Braun
Ore-Ida Foods Inc.
P.O. Box 10
Boise ID 83707
(208) 383-6404

or
Jeff Lyon
J.R. Simplot Company
P.O. Box 850
Hermiston, OR 97838
(541) 564-5190

John Baldwin
University of Oregon
130 Hendricks Hall
Eugene OR 97403-5247
(541) 346-3895

Jim Craven
American Electronics Association
5285 S.W. Meadows Road
Lake Oswego OR 97035
(503) 624-6050

William Dameworth
Pope & Talbot
P.O. Box 400
Halsey OR 97348
(541) 369-2841

Andy Hanson
Northwest Environmental Defense Center
8923 S.W. 5th Avenue
Portland OR 97219

John Ledger
Associated Oregon Industries
1149 Court Street N.E.
Salem OR 97301-4030
(503) 588-0050

Joan Saroka
Bureau of Environmental Services
1120 S.W. 5th Avenue
Portland OR 97204
(503) 823-5021

David Schreiner
Schreiner's Iris Garden
3625 Quinaby Road N.E.
Salem OR 97303
(503) 393-3232

Bill Weber
Valley Landfill
P.O. Box 807
Corvallis OR 97339
(541) 757-9067

Ellen Wedum
153665 Wagon Trail Road
La Pine OR 97739-9366
(541) 536-1330

Angela Wilson
Environmental Justice Action Group
7945 N. Chautauqua Boulevard
Portland OR 97217-7213

MILLER | NASH

LIMITED LIABILITY PARTNERSHIP | ATTORNEYS AT LAW



Miller Nash LLP
3500 U.S. Bancorp Tower
111 S.W. Fifth Avenue
Portland, OR 97204-3699
(503) 224-5858
(503) 224-0155 fax

4400 Two Union Square
601 Union Street
Seattle, WA 98101-2352
(206) 622-8484
(206) 622-7485 fax

900 First Interstate Tower
900 Washington Street
Post Office Box 694
Vancouver, Washington 98666-0694
(360) 699-4771
(360) 693-2911 fax

Caroline E. Kuerschner
kuerschner@millernash.com
(503) 205-2549 direct line

June 23, 2000

Environmental Quality Commission
811 S.W. Sixth Avenue
Portland, Oregon 97204

Subject: ODEQ Application No. 4570

Dear Commissioners:

As you are aware, the staff of the Oregon Department of Environmental Quality ("ODEQ" or "Department") has recommended against the certification of Albany Paper – East Multnomah Recycling ("EMR") as a pollution control facility. This application was first presented to the Environmental Quality Commission ("EQC" or "Commission") on December 20, 1999. The Department's recommendation to reject the application for untimeliness failed on a 2-2 motion by the Commission.

Since that time, the applicant, Willamette Industries, Inc. ("Willamette"), has provided the Department with additional information regarding the construction, costs, and operation of the facility. As confirmed by those materials, Willamette's application for pollution control facility tax credits for EMR ("Application No. 4570") was timely filed within the meaning of ORS 468.165. Willamette requests, therefore, that the Commission approve certification of this pollution control facility.

I. Introduction

The following authorities and documents are enclosed for your reference:

1. 3979 Tax Credit Review Report (9/1/93).
2. 4129 Tax Credit Review Report (2/16/94).
3. 4570 Tax Credit Review Report (9/30/97).
4. 4570 Tax Credit Review Report (12/8/99).
5. 4570 Tax Credit Review Report (1/24/00).
6. 4948 Tax Credit Review Report (12/30/98).
7. 5047 Tax Credit Review Report (9/99).
8. 5103 Tax Credit Review Report (5/1/00).
9. 5105 Tax Credit Review Report (5/1/00).

10. 5140 Tax Credit Review Report (5/1/00).
11. 5236 Tax Credit Review Report (5/1/00).
12. Affidavit of Russell M. Sheffer.
13. Comments by William R. Bree, 4570 Tax Credit Review Report (1/10/00).
14. Cooper v. Commissioner, 88 TC 84 (1987).
15. Draft 4570 Tax Relief Application Review Report (4/4/97).
16. Honeywell, Inc. v. Commissioner, 87 TC 624 (1986).
17. McKnight v. Commissioner, TC Memo 1990-69.
18. Memorandum from Bree to Vandehey on 12/15/99.
19. Memorandum from Marsh to Environmental Quality Commission of 1/24/00.
20. Memorandum from Marsh to Environmental Quality Commission of 11/1/99 including Exhibit E: Department of Environmental Quality, Topic Discussion: Construction Completed and Placed in Service (Rev 11/99).
21. Memorandum from Vandehey to Kuerschner of 2/8/00.
22. Nulex, Inc. v. Commissioner, 30 TC 769.
23. Phillips v. Commissioner, TC Memo 1992-75.
24. Riss & Company, Inc. v. Commissioner, TC Memo 1964-190 (in relevant part).

EMR is a 50,000 square foot wastepaper collection, processing and storage center, constructed by Willamette for the sole purpose of reducing a very substantial quantity of solid waste. The facility consists of a building, sorting and processing equipment (including the DCE dust filter system), and material handling equipment (including the Toledo platform scales). See 4570 Tax Credit Review Report at 2 (1/24/00).

A. Definition of a Pollution Control Facility

Under ORS 468.155(1)(a),

*"unless the context requires otherwise, 'pollution control facility' or 'facility' means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if [the] sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of * * * solid * * * waste * * * .*
(Emphasis added).

Under OAR 340-016-0010(5), "[f]acility as used in context means: (a) A pollution control facility as set forth in ORS 468.150 and ORS 468.155; or (b) The facility *as claimed in the application.*" (Emphasis added).¹

The term "facility," however, does not include

"[a]ny distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility, including the following items: (A) Office buildings and furnishings; (B) Parking lots and road improvements; (C) Landscaping; (D) External lighting; (E) Company or related signs; and (E) Automobiles * * *." ORS 468.155(3)(d).

As discussed below, EMR meets both the definitional requirements under ORS 468.155 and is, as stated by the Department, "the claimed facility" in Application No. 4570.

B. Scope of the Claimed Facility for Application No. 4570

The Department's most recent Tax Credit Review Report correctly defines "[t]he claimed facility [as] a wastepaper collection, processing and storage facility" which consists of the following components: (1) a building, including the receiving and shipping areas; (2) sorting and processing equipment; and (3) material handling equipment. See 4570 Tax Credit Review Report at 1-2 (1/24/00) (emphasis added). This description is consistent with Willamette's application:

"[The claimed facility] is a facility where loose wastepaper is collected, sorted, baled, and shipped. The overall warehouse is 50,000 ft² and includes an area for receiving and storing loose materials, a sorting conveyor system, a baler and feed conveyor system, a storage area for baled material, and eight space truck loading dock, and misc. rolling stock per the following list:

- A. Enterprise Baler (Model 16-EZRRB-200)
- B. Krause Baler Conveyor (93KRACONV0050)
- C. Krause Sorting Convey (93KRACONV00554B)
- D. Michigan Wheel Loader (SN L-70v61201)
- E. Mitsubishi 6M1b Fork Trk (SNAF89A-00546)
- F. Mitsubishi 6M1b Fork Trk (SNAF83A-00529)

¹ Prior to the 1998 rules, the term "facility" was defined as a pollution control facility. Importantly, however, throughout the time the prior administrative rules were in effect the Department consistently defined the "facility" in Application 4570 as a "wastepaper collection, processing and storage facility," consisting of a building and miscellaneous handling and processing equipment. See, e.g., 4570 Tax Credit Review Report at 1 (9/30/97); 4570 Tax Credit Review Report at 1 (12/8/99). Thus, the change in the administrative rules has no substantive effect on the determination of the "facility" for this application. For the sake of consistency, the term "claimed facility" is used throughout this letter.

Environmental Quality Commission

- 4 -

June 23, 2000

- G. Toledo Trk Scale (100T) (SN 4320386-45U)
- H. DeWald Steel Boxes (25)
- J. Toledo Platform Scale (10T) (SN 78089C)
- K. Cascade Steel Containers (5)
- L. Cascade Lift Trk Rotator (SN 93721)
- M. DCE Dust Filter System (SN 931395)[.]" Affidavit of James P. Aden, ¶9 and Exhibit C.

Under ORS 468.155(3)(d), the DCE dust filter system and Toledo platform scales can be excluded from EMR only if they are determined to make an insignificant contribution to the prevention, control or reduction of solid waste – the facility's sole purpose. As presented to the Department and the Commission, however, this is not the case. According to the Project Engineer, "the DCE dust filter system is a necessary element of EMR essential for the facility to perform its purpose." Affidavit of Marc W. Olson, ¶8. The Department's technical reviewer for EMR concurs that the DCE dust filter system is a part of the recycling equipment for the facility:

"I do not agree that the dust control system is not part of the recycling equipment. It is a customary part of a this [sic] type of baling system and [this] system was [sic] designed with this component." Comments by William R. Bree, Tax Credit Review Report at 2 (1/10/00).

Further, the fact that the scales are used to weigh the wastepaper coming into the facility, and thus calculate what is owed to the suppliers, actually supports the conclusion that the Toledo platform scales make more than an insignificant contribution to the facility's sole purpose, particularly when viewed in light of the requirement that recovered material must yield a competitive end-product of real economic value. ORS 468.165(c); OAR 340-016-0010(7). Such factors caused the Department's technical reviewer to conclude:

"I do not agree that the scales do not meet the sole purpose test. They are a necessary part of the recycling facility. Their sole purpose is handling recyclable material. Purchase and sale of recyclable material is a necessary part [of] the recycling process which must produce a salable product." Comments by William R. Bree, 4570 Tax Credit Review Report at 2 (1/10/00).

The Department has yet to produce any evidence that these components make an insignificant contribution to pollution control. Rather, the Department has simply concluded, without evidence and in contradiction to the findings of the Department's technical reviewer, that these components of the EMR facility make an insignificant contribution to the material waste recovery process. Moreover, even if the Department did invoke the "sole purpose" requirement for each component of the facility, this equipment would pass that test, for, as described herein, the sole purpose of both the DCE dust filter system and the Toledo platform scales is to directly

Environmental Quality Commission

- 5 -

June 23, 2000

facilitate the recycling of a substantial quantity of wastepaper, thereby reducing the amount of solid waste in the state.²

II. Application Filing Deadline

The statutes governing pollution control facility tax credits require that the application be submitted within two years after construction of the facility is substantially completed. ORS 468.165(6). Under the applicable regulations, "substantially completed" is further defined as the "completion of the erection, installation, modification, or construction of all elements of the claimed facility which are essential to perform its purpose." OAR 340-016-0010(11) (emphasis added).³

Thus, the relevant question is whether there existed any elements of EMR (the claimed facility) which were essential for the facility to perform its purpose (to prevent, control or reduce a substantial quantity of solid waste), but had yet to be installed, constructed or erected as of December 22, 1993? The answer is "Yes."

A. Construction Substantially Completed – Design, Construction, and Installation of the Claimed Facility

As described above, the EMR facility is a wastepaper collection, processing and storage facility consisting of a building and numerous pieces of machinery and equipment. Among those listed items of equipment is the DCE dust filter system. See 4570 Tax Credit Review Report at 2 (1/24/00); Exhibit C to the Affidavit of James P. Aden.

The DCE dust filter system was designed as an integral part of the Enterprise baler to filter out the substantial quantities of dust created during the baling process. Affidavit of Marc W. Olson, ¶¶ 4 and 9. The DCE dust filter is attached to the Enterprise baler and connected by a custom-designed hood that sits on top of the chamber into which the wastepaper is dropped and compressed. Id. at ¶5. This design was intended to prohibit any dust from escaping during the baling process only, and does not serve as a dust filter system for the entire facility.

Nonetheless, the Department has concluded that the DCE dust filter system was not essential for the facility to perform its purpose. The Department's conclusion is based on its

² The sole purpose test for eligibility is met where "[the] **sole purpose** of the previously listed components is to recycle or directly facilitate the recycling of a substantial quantity" of solid waste. 4948 Tax Credit Review Report at 2 (12/30/98) (emphasis in original).

³ Willamette acknowledges that the word "claimed" was added in the 1998 rules. As is detailed in footnote 1, supra, this revision has no apparent effect to the certification of Application No. 4570 as it is only recently, and after the change to the applicable administrative rules, that the Department began to use the term "claimed facility" with respect to this application. Accordingly, to be consistent with the Department's current Tax Credit Review Report, the term "claimed facility" is used herein.

Environmental Quality Commission

- 6 -

June 23, 2000

determination that the purpose of the dust filter system is for industrial safety and site maintenance, and on the fact that the lessee, Far West Fibers, began operating the facility on September 29, 1993. Memorandum from Marsh to Environmental Quality Commission of 1/24/00 at 4.

Turning first to the issue of industrial safety and site maintenance, it is clear that the DCE dust filter system's purpose is not maintenance and safety. By way of analogy, the fact the interior lighting for EMR provides an incidental benefit in the form of a safe working environment (enabling workers to see so that they do not injure themselves) is inconsequential because the real purpose for which such lighting was installed was to prevent, control, or reduce a substantial quantity of solid waste. This purpose is achieved by the fact that the interior lighting helps to get the recycling work done in an efficient manner.

Likewise, it cannot honestly be contended that the walls, roof and floor of the building create no incidental benefits in addition to serving the facility's sole purpose of pollution control. Rather, it is the purpose for which these elements were constructed that determines whether they are eligible as components of a pollution control facility.

Therefore, while an incidental benefit of the roof and walls is to keep the weather out and the building dry (so that the workers have a safe environment in which to work) these two elements are not characterized by the Department as performing an industrial safety function. In fact, despite such other identifiable incidental benefits, the Department has correctly concluded:

"The 50,000 square foot building is used to receive the loads of loose waste paper, store both loose and baled papers and house all of the processing activities. This is the sole purpose for which the building is used. The new portion of the structure, 21,000 square feet is identified as part of the claimed facility. The receiving area, on the floor inside the building, and the shipping area, [and the] 8 loading docks are used solely to handle waste paper." 4570 Tax Credit Review Report at 2 (1/24/00) (emphasis added).

Similarly, the real purpose for which the DCE dust filter system was constructed and installed was to prevent, control or reduce substantial quantities of solid waste. The "purpose of the DCE is to filter out substantial quantities of dust created during the baling process." Affidavit of Mark W. Olson, ¶4. Further, the "DCE dust filter system is a necessary element of EMR essential for the facility to perform its purpose." Id. at ¶8.

The Department's technical reviewer for Application No. 4570 concurs that the DCE dust filter system is a part of the recycling equipment for the facility:

"I do not agree that the dust control system is not part of the recycling equipment. It is a customary part of a this [sic] type of baling system and [this] system was

Environmental Quality Commission

- 7 -

June 23, 2000

[sic] designed with this component." Comments by William R. Bree, 4570 Tax Credit Review Report at 2 (1/10/00).

As the Commission is aware, the DCE dust filter system was an important element of the facility's design from the inception of the project, not some belated addition determined to be necessary after the facility was operating. See Affidavit of Marc W. Olson, ¶9. The delay in its installation was thus not due to a change in the plant design, but rather to the complexity of the machinery and the involvement of several subcontractors and equipment fabricators. Id. Therefore,

"[f]rom an operational perspective, the information provided by [Willamette] documents that the final operational element of the facility was not installed until February 1994 * * * [a]nd further that all construction was not complete until February 1994 not September or November, 1993." Memorandum from Bree to Vandehey on 12/15/99.

Second, the date a facility is placed into operation is not determinative of the date of substantial completion. That such dates are different and distinct is consistently reflected in the Department's own tax credit review reports. Moreover, the fact that operations can begin prior to the date a facility is substantially completed has been relied on by the Department to recommend certification of pollution control facilities. For example, in the case of Application No. 3979, the Department recommended approval for an electrostatic precipitator, which was placed into operation on January 2, 1991, but not deemed substantially complete until March 19, 1991. See 3979 Tax Relief Application Review Report at 2 (9/1/93). As a second example, the other facility claimed under this application was also placed into operation two months before the system was deemed substantially complete. Id. For further examples, see 4129 Tax Credit Review Report at 1 (2/16/94) (recommending approval where the facility was placed into operation September 15, 1991, but not deemed substantially complete until January 15, 1992); 5140 Tax Credit Review Report at 3 (5/1/00) (approval recommended where construction was completed one year after the facility was placed into operations). Similarly, with respect to Application No. 4570, "the applicant appears to have established that the facility was actually put into use before it was substantial [sic] complete." Memorandum from Bree to Vandehey of 12/15/99.

Finally, the applicable rule is written in terms of the "claimed facility." See OAR 340-016-0010(11) ("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") (emphasis added). Throughout this process, the Department has routinely characterized the claimed facility as "a wastepaper collection, processing and storage facility" consisting of a building, sorting and processing equipment, and material handling equipment. See e.g., 4570 Tax Credit Review Report 1-2 (1/24/00). Further, Willamette, as was requested on page 2 of the application, described the claimed facility as

"a facility where loose wastepaper is collected, sorted, baled, and shipped. The overall warehouse is 50,000 ft² and includes an area for receiving and storing loose materials, a sorting conveyor system, a baler and baler feed conveyor system, a storage area for baled material, an eight space loading dock, and misc. rolling stock * * *." Exhibit C to the Affidavit of James P. Aden.

The list of rolling stock specifically identified the major pieces of equipment in the claimed facility, including the DCE dust filter system. Id. Thus, irrespective of the costs eventually determined to be eligible, the claimed facility is as defined by Willamette in its application and by the Department in its review reports: namely, a wastepaper collection, processing, and storage center.

Therefore, under the statutory definitions and the Department's application, EMR was not substantially completed until April 1994, when all of the elements of the claimed facility essential to perform its purpose were erected, constructed, and installed.

B. Construction Substantially Completed – Depreciation and Placed in Service

The Department routinely relies on accounting information to establish the date of substantial completion. In particular, the Department's practice is to use the date an applicant begins to depreciate its facility (i.e., the date the facility was placed into service) to establish the date that construction was substantially completed.

1. Department Interpretation and Practice

In November 1999, the Department issued its written interpretation of the terms "substantial completion" and "placed in service" as used in ORS 468.165(6). That document states:

"ORS 468.165 appears to separate the terms 'substantially completed' and 'placed in service.' *The OAR definition of 'substantially completed' and the IRS definition of 'placed in service' have the same meaning.*

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[d] 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.*" Department of Environmental Quality, Topic Discussion: Construction Completed and Placed in Service at 1 (Rev 11/99) (emphasis added).

The Department's November 1999 written interpretation is based on the Department's practices and policies with respect to using the date of depreciation to determine the date construction of a facility was substantially completed. Further, the written interpretation has been relied upon by the Department to establish the date of substantial completion. See, e.g., Memorandum from Marsh to Environmental Quality Commission of 11/1/99 at 4 ("The topic discussion presented in Attachment E provides guidance on how the Department determines if an application was filed in a timely manner"); Letter from Vandehey to Kuerschner of 2/8/00 at 2 ("[The interpretation] is generally used to help reviewers identify when they should ask additional questions").

Thus, it is not at all surprising that in 1997, Willamette received a draft tax credit review report for EMR establishing the lease date as the date of substantial completion. Specifically, the draft report stated:

"[EMR] was substantially complete for the applicant on December 31, 1993, when the lease between applicant and facility operator became effective." Draft 4570 Tax Relief Application Review Report at 2 (4/4/97).

In this report, the reviewer highlighted the fact that the:

"applicant is the owner but not the operator of the facility and is claiming the facility as a leased recycling facility with a date [of] substantial completion being the first day on which the facility began to produce lease income." Id.

Importantly, the reviewer still agrees with this assessment:

"The owner's perspective of a facility is as a financial investment rather than an operational facility. It is reasonable that they would view the date that a facility starts to function as a financial investment, i.e. date of the beginning of a lease or date of placement on the books, as the date of completion of the investment in ownership." Memorandum from Bree to Vandehey of 12/15/99.

Further, the Department's current application instructions and guidelines, as well as the Department's web site, provide the following as examples of the date of "substantial completion":

For some companies the date of substantial completion may be the date the operations began or it may simply be the date of purchase. For others, [the date of substantial completion] may be the date the asset was placed on the books or began depreciation. Department of Environmental Quality Pollution Tax Credit Application Instructions and Guidelines at 3, 10; http://waterquality.deq.state.or.us/wq/taxcredits/TxCrdt_instructions.pdf. (Emphasis added).

As written, the foregoing guideline provides four different dates, each of which may be used to determine the date a pollution control facility was "substantially completed" under OAR 340-016-0010(11). Consistent with this procedure, in our May 23, 2000, meeting, Ms. Margaret Vandehey acknowledged that the Department uses the date on which an applicant began depreciating a facility to establish when a pollution control facility was "substantially completed." The following authorities are all in accord with this: 5103 Tax Credit Review Report (5/1/00) (recommending approval of a facility based on the date the facility was placed into operation, not the date construction was determined to have been substantially completed); 5105 Tax Credit Review Report (5/1/00) (same); 5047 Tax Credit Review Report (9/99) (same); 5236 Tax Credit Review Report (5/1/00) (recommending denial of portions of a facility which were placed on the applicant's depreciation ledger more than two years before the application was submitted).

Finally, according to the Department, "the statutory definition of 'substantial completion' is almost identical to the Internal Revenue Service's definition of 'placed in service'." Memorandum from Langdon Marsh to Environmental Quality Commission of 5/1/00 at 3. In fact, "[w]hen accounting firms or accountants complete the application they *understand* the two terms to have the same meaning." *Id.* (emphasis added).

2. Other Authority Interpreting the Meaning of "Placed in Service."

Under the applicable regulations, "[p]roperty is first placed in service when first placed in a condition or state of readiness for a specifically assigned function." Treas. Reg. §1.167(a)-11(e)(1); see also Treas. Reg. §1.46-3(d)(1)(ii) and (d)(2). Importantly, "[t]he term 'placed in service' refers to the time the property is first placed in service by the taxpayer, not to the first time the property is placed in service." Treas. Reg. § 1.167(a)-11(e)(1) (emphasis added).

Similarly, the Department's examples of the beginning of the depreciation period confirm that depreciation is "unavailable until the taxpayer begins the trade, business, or income producing activity for which the asset is intended." Department of Environmental Quality, Topic Discussion: Construction Complete and Placed in Service at 3 (citing, Nulex, Inc. v. Commissioner, 30 TC 769 (1958)).

In Application No. 4570, Willamette is the taxpayer and owner of the facility. EMR was built so that the facility could be leased to Far West Fibers, Inc. ("Far West Fibers"). The income producing activity for which this facility was intended was the production of lease payments. Affidavit of Russell M. Sheffer ¶4.

At no point in EMR's design, development, or construction did Willamette contemplate operating the facility itself. See id. EMR began to produce lease payments on January 1, 1994, the effective date of the lease. *Id.* at ¶8.

Courts consistently equate the date a facility was placed in service with the date of the related lease. See, e.g., Honeywell Inc. v. Commissioner, 87 TC 624, 628 (1986) ("new computers originally placed in service by lease in each of the years 1976 through 1980"); Phillips v. Commissioner, TC Memo 1992-75 (oil and gas drilling rig and related equipment placed in service in 1981 when leased); McKnight v. Commissioner, TC Memo 1990-69 ("The Agreement of Lease commenced on September 1, 1985 * * *. The computer equipment was placed in service on September 1, 1985, the date the first fixed rental payment was to be paid to Michigan Trust."); cf., Cooper v. Commissioner, 88 TC 84, 114 (1987) ("Petitioners herein executed their lease agreements with Coordinated simultaneously with their purchase agreements with A.T. Bliss; at that time the systems were available for use in the petitioner's profit-motivated leasing venture. We hold, therefore, that petitioners' systems were placed in service as of the date of purchase.").

For example, in Riss & Company, Inc. v. Commissioner, TC Memo 1964-190, the court held that the date of depreciation "refers to the time when the asset is placed in service by the owner." The court continued, stating that the owner's

"only use of the equipment was its lease to Riss & Company, therefore it was placed in service by [the owners] on the effective dates of the lease agreements * * *". These were the dates on which Riss & Company began the rental payments to [the owners]. Id. (emphasis added).

EMR was not available for its specifically intended function (leasing) until January 1, 1994, the date the facility began its intended income producing activity. Accordingly, January 1, 1994, was the date EMR was placed in service and the date of substantial completion.

III. Conclusion

The foregoing analysis leads to the following conclusions:

(A) the "facility" under Application No. 4570 is "a wastepaper collection, processing and storage facility," consisting of the following components: (i) a building including the shipping and receiving areas; (ii) sorting and processing equipment including the DCE dust filter; and (iii) material handling equipment;

(B) the DCE dust filter system and the Toledo platform scale are eligible cost components of this facility;

(C) the DCE dust filter system is a part of the recycling equipment and thus is an essential element of the facility;

(D) from an operational perspective, the date of substantial completion is after January 1, 1994;

Environmental Quality Commission

- 12 -

June 23, 2000

(E) the effective date of the lease between Willamette and Far West Fibers was January 1, 1994; and

(F) the date Willamette began to depreciate the EMR facility was December 31, 1993.

Thus, under ORS 468.165(b) as further defined by OAR 340-016-0010(ii), Application No. 4570 was timely filed on December 22, 1995, the date it was stamped as received by the ODEQ's Fiscal Office.

Moreover, and even if the Commission does not conclude that the DCE dust filter system is an essential element of the claimed facility, under the Department's own interpretation of the applicable rules and statutes, EMR was substantially complete on the date depreciation began – December 31, 1993. Accordingly, Application No. 4570 was timely filed on December 22, 1995.

Therefore –the merits and eligible costs of this facility already being determined – Willamette requests the Commission to certify the facility in the amount of \$2,538,024.⁴

Very truly yours,



Caroline E. Kuerschner

cc w/o enc: Mr. Jim Aden
cc w/enc: Mr. Michael Huston
Ms. Maggie Vandehey

⁴ This amount represents the total identified facility cost of \$2,596,818 less the costs attributable to the fire protection system and other miscellaneous deemed non-allowable by the Department in its report dated January 24, 2000.

State of Oregon
 Department of Environmental Quality
 TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Timber Products Co.
 Medford Hardwood Plywood
 PO Box 1669
 Medford OR 97501

The applicant owns and operates a hardwood plywood mill in Medford, Oregon.

Application was made for tax credit for an air pollution control facility.

2. Description of Facility

The claimed facilities control the emissions of three veneer dryers and reduce emissions from the plywood sander and plytrim lines. The facilities consist of an Electrified Filter Bed (EFB) HFC 50 electrostatic precipitator, a Northwest baghouse, and support equipment.

Claimed Facility Cost: \$729,312.64

The claimed facility replaces a previously certified pollution control facility. On February 22, 1980, Pollution Control Facility Certificate No. 1057 was issued to Timber Products Company for \$219,823.08. The facility consisted of two Burley scrubbers and water treatment system to control the emissions from two veneer dryers. The claimed facility replaces the scrubbers and utilizes the water treatment system. In accordance with OAR 340-16-025 (g), the applicant is eligible for the difference between the like-for-like replacement costs of the original facility and the new facility. The Department estimated and the applicant concurred it would cost \$240,055.13 to replace the original facility. This estimate does not include the cost of replacing the water treatment system since it is utilized in the claimed facility.

A distinct portion of the facility makes an insignificant contribution to the principal purpose of pollution control. The applicant claimed \$16,708.37 for equipment installed on their veneer dryers and \$225 for engineering work unrelated to pollution control.

Like for Like Replacement Costs:	\$240,055.13
Ineligible costs:	\$16,933.37

Adjusted Facility Cost: \$472,324.14

Accountant's Certification was provided.

The applicant indicated the useful life of the facility is ten years.

3. Procedural Requirements

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

The electrostatic precipitator meets all statutory deadlines in that:

Installation of the EFB was substantially completed on March 19, 1991, and it was placed into operation on January 2, 1991. The Department received the application on February 10, 1993. The Department considered this portion of the application filed in all technical aspects on March 11, 1993, within two years of substantial completion of the facility.

The Fabric Filters Northwest Baghouse met all statutory deadlines in that:

Installation of baghouse and pneumatic waste transport system was substantially completed on November 18, 1992. The facility was placed into operation on September 14, 1992. The Department considered this portion of the application filed in all technical aspects on July 22, 1993, within two years of substantial completion of the facility.

4. Evaluation of Application

a. Rationale For Eligibility

The EFB electrostatic precipitator is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. The Air Contaminant Discharge Permit for this source, 15-0025, requires the permittee to control the atmospheric emissions of all veneer dryers. This is in accordance with OAR Chapter 340, Division 30, rule 021. The emission reduction is accomplished by the elimination of air contaminants as defined in ORS 468A.005.

The facility consists of an Electrified Filter Bed (EFB) electrostatic precipitator and associated support equipment. Installation of the facility required ducting, structural support, electrical materials, a foundation, a fire suppression system, and contract labor. The claimed facility controls particulate emissions to the atmosphere of the applicants three plywood veneer dryers. The emissions consist of hydrocarbons vaporized in the veneer drying process. The vaporized hydrocarbons condense into liquid particulate when exposed to ambient conditions in the atmosphere. After the installation of the EFB, the applicant performed compliance demonstration tests for all three veneer dryers on April 4, 1991 and August 6 & 7, 1992. The Department reviewed the tests and acknowledged the compliance status of the veneer dryers.

The veneer dryer exhaust is drawn through ducting by a 75 horse power fan located between the EFB and the exhaust stack. The ducting routes the exhaust gas stream into an evaporative cooler where the hydrocarbons are cooled and condense into a suspended liquid particulate. The exhaust gas stream then passes through negatively charged electrodes. The electrodes generate ions which impart a negative charge to the particulate. The exhaust gas stream is then drawn into the positively charged filter bed. The particulate is attracted to the positively charged areas of the filter bed causing the

particulate to accumulate and drop out of the exhaust stream. The filtered exhaust stream is then drawn into the stack and vented to the atmosphere. The collected particulate seeps down through the bed and drains out of the EFB.

The baghouse and pneumatic waste transport system is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. On May 25, 1990 the Department required the applicant to present a remedial action plan to reduce the level of particulate fallout on adjacent properties to 10 grams per square meter per month. This is in accordance with OAR Chapter 340, Division 31, Rule 45, Particulate Fallout. The emission reduction is accomplished by the elimination of air contaminants as defined in ORS 468A.005.

The claimed facility reduces particulate emissions from the plywood sander and plywood trimming saws' pneumatic waste transport systems. The facility consists of a Fabric Filters Northwest baghouse, a pneumatic conveyance system, and support equipment. Installation of the pneumatic transport system required ducting, structural materials, a fan and motor, electrical materials, and contract labor. Installation of the new baghouse required a support structure, a fire detection and suppression system, a foundation, and electrical and mechanical materials and labor.

Prior to the installation of the claimed facility the emissions from the plywood plant's pneumatic waste transport system were controlled by a single Carothers baghouse. The Carothers baghouse was operating over capacity which resulted in periodic events where air flow through the filters was obstructed. These obstructions caused a pressure build up in the baghouse, which pushed materials backwards through the pneumatic transport system into the mill. When these events occurred the pneumatic transport system was rerouted to an uncontrolled cyclone, which contributed to the applicant's particulate fallout problem. Department records indicate that these excess emission events were occurring on the average of once a week. Since the installation of the facility Department records indicate excess emission events related to the Carothers baghouse filter obstruction have ceased occurring.

The facility is one approach the applicant has taken toward addressing the particulate fallout problem. The amount of fallout on adjacent properties has decreased from an average of 45 grams per square meter each month in 1990 to an average of 22 grams per square meter each month in 1993. The Department has required the applicant reduce the level of total particulate fallout to 10 grams per square meter per month. The applicant is developing continuing strategies to address the particulate fallout problem.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

- 1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

A portion of the waste material retrieved by the pneumatic waste transport system is a usable commodity consisting of sander dust used for boiler fuel. The average annual value of this fuel is estimated by the Department to be \$48,845.00. The EFB does not recover or convert waste products into a salable or usable commodity.

- 2) The estimated annual percent return on the investment in the facility.

The average annual cash flow of the facility is \$29,646.00 which results from income generated by the baghouse less increase in annual operating costs. Dividing the average annual cash flow into the cost of the facility gives a return on investment factor of 24. Using Table 1 of OAR 340-16-30 for a useful life of ten years gives an annual return on investment of 0%. As a result, the percent allocable is 100%.

- 3) The alternative methods, equipment and costs for achieving the same pollution control objective.

Electrostatic precipitators are technically recognized as an acceptable method for controlling the emissions of particulate from veneer dryers in PM10 Non-Attainment Areas. Baghouses are technically recognized as an acceptable method for controlling the emissions of particulate from wood waste pneumatic transport systems.

- 4) Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

The increase in annual operating costs of the facility is \$19,199.00. There is a savings of \$32,382.00 in maintenance and operating costs of the EFB compared to the previous facility. However the cost of maintaining and operating the Fabric Filters baghouse and pneumatic waste transport system is \$51,581.00 annually.

- 5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control, or reduction of air pollution.

The eligible facility costs have been determined to be \$472,324.14 after adjusting for a distinct portion of the facility which is not eligible for tax credit certification. This is discussed in section 2 of this report.

The Environmental Quality Commission has directed that tax credit applications at or above \$250,000 go through an additional Departmental accounting review, to determine if costs were properly allocated. This review

was performed under contract with the Department by the accounting firm of Symonds, Evans & Larson (see attached report).

Other than the adjustments to the claimed facility cost made by the Department referenced in section 2, the cost allocation review of this application has identified no issues to be resolved and confirms the cost allocation as submitted in the application.

The actual cost of the facility properly allocable to pollution control as determined by using this factor or these factors is 100%.

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce air pollution.
- c. The facility complies with DEQ statutes, rules, and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$472,324.00 with 100% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. TC-3979.

BKF
MISC\AH72915
September 1, 1993

50003661

SYMONDS, EVANS & LARSON
CERTIFIED PUBLIC ACCOUNTANTS

Environmental Quality Commission
811 S.W. Sixth Avenue
Portland, Oregon 97204

At your request, we have performed certain agreed-upon procedures with respect to Timber Products Company's (the Company's) Pollution Control Tax Credit Application No. 3979 (the Application) filed with the State of Oregon, Department of Environmental Quality (DEQ) for the Air Pollution Control Facility in Medford, Oregon (the Facility). The Application has a claimed Facility cost of \$472,324 (as amended by the DEQ). Our procedures, findings and conclusion are as follows:

Procedures:

1. We read the Application, the Oregon Revised Statutes on Pollution Control Facilities Tax Credits – Sections 468.150 through 468.190 (the Statutes), and the Oregon Administrative Rules on Pollution Control Tax Credits – Sections 340-16-005 through 340-16-050 (OAR's).
2. We reviewed certain documents which support the Application.
3. We discussed the Application, the Statutes and OAR's with certain DEQ personnel, including Charles Bianchi and Brian Fields.
4. We discussed certain components of the Application with numerous Company personnel including the following:
 - Gary Korepta
 - Gary DelGrande
 - Terri Haydukiwecz
5. We toured the Facility with Mr. Korepta.
6. We requested that Company personnel confirm the following:
 - a) There were no related parties or affiliates of the Company which had significant billings which were included in the Application.

50003662

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Fujitsu Microelectronics, Inc.
3545 North First Street
San Jose, CA 95134

The applicant manufactures semiconductor integrated circuits.

Application was made for tax credit for an air pollution control facility installed at the applicant's Gresham manufacturing facility.

2. Description of Facility

The claimed facility controls nitric acid emissions from semiconductor wafer processing equipment. The facility consists of a process exhaust nitric (PEN) system, which includes a wet scrubber, coalescing aerosol mist elimination filter, and support equipment.

Claimed Facility Cost: \$943,490.00

Accountant's certification was provided.

The applicant indicated the useful life of the facility is 10 years.

3. Procedural Requirements

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

The facility met all statutory deadlines in that:

Erection of the facility was substantially completed on January 15, 1992, and it was placed into operation on September 15, 1991. The application for final certification was received by the Department on August 6, 1993. The application was considered complete on January 6, 1994, within 2 years of substantial completion of the facility.

4. Evaluation of Application

a. Rationale For Eligibility

The facility is eligible because its sole purpose is to control air pollution. The air contaminants controlled are toxic pollutants. The Department is currently developing rules under Title III of the Clean Air Act Amendments of 1990, for the control of air toxics. In the interim, the Department is implementing guidelines that require new sources and major modifications to existing sources to quantify their emissions of air toxics. Proposed emission levels are evaluated relative to established significant emission rates (SER) for each air toxic. New sources that generate air toxics above the SERs are required to model concentration levels for site-specific conditions to determine whether emissions meet or exceed acceptable risk levels. With the scrubbers, the emission rates for each air toxic are below the SER. The control is accomplished by the elimination of air contaminants as defined in ORS 468.005.

The claimed facility controls the emissions of sub-micron size nitric acid mists. Semiconductor wafer processing equipment using heated nitric acid baths can produce these acid mists as a component of the fumes exhausted. Before the PEN system was installed, acid fume exhausts from all production equipment were processed through a wet scrubber system. This scrubber system periodically emitted a blue plume and equipment corrosion was visual evidence of the nitric acid emission problem. Standard wet scrubbing alone proved to be relatively ineffective for treatment of these small particles. The PEN system consists of ducting, a wet scrubber, a coalescing aerosol mist elimination filter (CECO filter), and high static pressure exhaust fans.

The PEN system collects the process exhaust that contains the nitric acid mist. Exhausts from the production equipment are collected by the ducting and pulled into the scrubber. The scrubber body is filled with plastic packing media with a high surface area. Water runs over the media, thereby providing a wet surface for the process exhaust to pass over. The system fan pulls exhaust through the scrubber, and exhaust fumes are adsorbed onto the media surface. The process exhaust is then pulled into ducting and routed to the CECO filter. The CECO filter has a large water saturated internal surface area which the nitric acid mists are adsorbed onto. The large surface area results from the fine pored high density media the CECO filter is composed of. High static pressure exhaust fans are needed because of the high density of the filter.

Following the installation of the PEN system, the blue plume was eliminated, and the corrosion was halted. Furthermore, air monitoring results using U.S. Environmental Protection Agency Method 5 indicate a reduction in nitric acid emissions from 3.885 pounds per hour before entering the CECO filter to 0.048 pounds per hour after exiting the filter.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1. The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The facility does not recover or convert waste products into a salable or usable commodity.

2. The estimated annual percent return on the investment in the facility.

The annual operating expenses exceed income from the facility, so there is no return on investment.

3. The alternative methods, equipment, and costs for achieving the same pollution control objective.

Scrubbers are technically recognized as an acceptable method for controlling the emissions of particulate from semiconductor plants. A conventional scrubber was installed before the installation of the scrubbers with the CECO filters, but it was ineffective.

4. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility.

The applicant realizes a savings of \$5,000 per year, the cost of replacing corroded equipment. The increase in annual operating cost of the facility is approximately \$24,439 per year from the increased use of electricity.

5. Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control, or reduction of air pollution.

The Environmental Quality Commission has directed that tax credit applications at or above \$250,000 go through an additional Departmental accounting review, to determine if costs were properly allocated. This review was performed under contract with the Department by the accounting firm of Symonds, Evans & Larson (see attached report).

The cost allocation review of this application has identified no issues to be resolved and confirms the cost allocation as submitted in the application.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100 percent.

5. Summary

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution.
- c. The facility complies with Department statutes, rules, and permit conditions.
- d. An independent accounting firm under contract with the Department has concluded that no further review procedures be performed on TC-4129 (see attachment).
- e. The portion of the facility cost that is allocable to pollution control is 100 percent.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$943,490.00 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-4129.

Tonia C. Garbowsky : PRC Environmental Management, Inc.
February 16, 1994
MISC\AH73310



Tax Credit Review Report

Revised 9/30/97

Department's
Action:

**REJECT -
Untimely Submittal
Willamette Industries, Inc**

Applicant	
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 operating as a producer of linerboard and bagpaper taking tax relief under taxpayer identification number 93-0312940. The claimed facility is owned by the applicant, Willamette Industries, Inc. and leased to an independent facility operator, Far West Fibers.

The applicant's address is:

3800 First Interstate Tower
Portland, OR 97201

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.

Facility Identification

The certificate will identify the facility as:

Ebterprise Baler (Model 16-ezrrb-200), Kraus Baler Conveyor (93KRACONV0050) Krause Sorting Conveyor (93KRACONV0050), Michigan Wheel Loader (SN L-70v61201), Mitsubishi 6Mlb Fork Trk (SNAF89A-00546), Mitsubishi 6Mlb Fork Trk(SNAF89A-00529), etc.

The facility is located at:

12820 NE Marx Street
Portland, OR 97230

50007022

Eligibility According to ORS 468.165 (6), failure to file a timely application as shown in the *Timeliness of Application* section below shall make the facility ineligible for tax credit certification.

ORS 468.155 The sole purpose of this new building, machinery and equipment is to
 (1)(a) prevent, control or reduce a substantial quantity of solid waste.

ORS 468.155 The facility provides a material recovery process which obtains useful material
 (1)(b)(D) 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 operations in the claimed facility on September 27, 1993, over three months before the lease was signed. The Department asserts that this is the date the construction of the facility was substantially complete.

<i>Application Received</i>	<u>12/26/1995</u>
<i>Application Substantially Complete</i>	
<i>Construction Started</i>	<u>05/01/1993</u>
<i>Construction Completed</i>	<u>11/27/1993</u>
<i>Facility Placed into Operation</i>	<u>12/31/1993</u>

However, 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. Since this date is within two years after construction of the facility was substantially completed the applicant would have submitted a timely application.

The Department of Justice can see no legal basis for the applicant's interpretation of the statute. Therefore, the Department recommends the Environmental Quality Commission deny this application.

Facility Cost

	\$2,596,818
Salvage Value	\$ -
Government Grants	\$ -
Other Tax Credits	\$ -
Insignificant Contribution (ORS 468.155(2)(d))	\$ -
Ineligible Costs	<u>- \$2,596,818</u>
Eligible Facility Cost	\$0

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.

<u>Factor</u>	<u>Applied to This Facility</u>
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% and 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) No other relevant factors.
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.Vandehy, DEQ
 Larry Knudsen, Department of Justice

50007025



Tax Credit Review Report

EQC 9912

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 Conveyor (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.

50005529

Eligibility

- ORS 468.155 The sole purpose of this new building, machinery and equipment is to prevent,
 (1)(a) control or reduce a substantial quantity of solid waste.
- ORS 468.155 The facility provides a material recovery process which obtains useful material
 (1)(b)(D) 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	<u>- \$2,596,818</u>
Allowable Facility Cost	\$0

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).

50005530

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	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	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. 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.
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

50005531



Tax Credit Review Report

EQC 0002

Director's Recommendation:	REJECT
Applicant	Untimely Submittal
Application No.	Willamette Industries, Inc
Application No.	4570
Claimed Facility Cost	\$2,812,715
Claimed % Allocable	100%
Useful Life	20 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:

Enterprise Baler (Model 16-ezrrb-200), Kraus Baler Conveyor (93KRACONV0050) Krause Sorting Conveyor (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 claimed facility is a wastepaper collection, processing and storage facility. The facility receives waste paper from independent collectors who recover the waste paper from residential and commercial generators. The waste paper deliveries are received, weighed, and transported to temporary storage areas, separated by type of paper. The paper is removed from storage and transported to a processing area where it is goes through a sorting process, often with the use of a sorting conveyor system. Sorted paper is transported from the sorting system to a baler where it is baled. The paper bales are weighted, labeled, and transported to a bale storage area, again separated

by type of paper. Eventually bales are removed from storage and loaded into trucks or shipping containers, the loads are weighed and transported to paper mills to be recycled into new paper products.

The claimed facility consists of the following components:

- **Building, including the receiving and shipping areas:**

At the time of application the facility received, processed and shipped approximately 3,000 tons per month of waste paper. The 50,000 square foot building is used to receive the loads of loose waste paper, store both loose and baled papers and house all of the processing activities. This is the sole purpose for which the building is used. The new portion of this structure, 21,000 square feet is identified as part of the claimed facility. The receiving area, on the floor inside the building, and the shipping area, 8 loading docks are used solely to handle waste paper.

- **Sorting and processing equipment:**

Most of the waste paper is sorted through a Krause sorting system that includes feed and sorting conveyors, platform with sorting stations, and steel sorting containers. Sorted paper is baled using an Enterprise baler equipped with a feed conveyor, ruffler, dust filter, and auto-tie system. Finished bales are weighted, labeled, and stored in stacks for future shipment.

- **Material handling equipment**

The claimed facility includes a variety of material handling equipment necessary to move loose sorted and unsorted waste paper, waste paper bales, and steel sorting containers. This includes one wheel loader for moving loose paper and two fork lift trucks for moving bales and sorting containers. Equipment for the forklift trucks includes a lift truck rotator for dumping sorting containers. Sorting containers include Cascade steel containers and DeWald steel boxes.

Material handling equipment also includes two scales. The 100 ton Toledo truck scales is used to weigh incoming loads of loose paper and outgoing shipments of baled paper. The 10 ton Toledo platform scales are used to weigh sorted waste paper in boxes and individual paper bales.

Eligibility

First Level Eligibility

- ORS 468.155 The **sole purpose** of this **new building, machinery and equipment** is to prevent, (1)(a) control or reduce a substantial quantity of solid waste.
- ORS 468.155 The “purpose” of the fire protection system is not to prevent, control or reduce a (1)(a) substantial quantity of solid waste.
- ORS 468.155 The “purpose” of the DCE dust filter system is not to prevent, control or reduce a (1)(a) substantial quantity of solid waste. As stated in the Affidavit of Marc W. Olsen, Willamette Industries, Inc., Project Manager, East Multnomah County Recycling, dated December 8, 1999: “The DCE dust filter system lowers the level of dust in the building, keeps dust out of the work area and off the equipment, and helps insure safe driving conditions for forklift operators in the facility.” This

component is not eligible as an air pollution control facility since it fails the definition of an air pollution control facility for tax credit purposes.

ORS 468.155 (1)(a) The "purpose" of the scales is not to prevent, control, or reduce a substantial quantity of solid waste. The purpose of the scales is used by Far West Fibers to bill their suppliers.

ORS 468.155 (1)(b)(D) The sole purpose of the facility is accomplished by 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 Far West Fibers plant personnel affirmed September 27, 1993, as the date the facility began operating for pollution control purposes; therefore, the Department considers September 27, 1993 as the date construction was completed.

The applicant claims the date of substantial completion of the facility is January 1, 1994, the date the lease was signed. As the lessor of the facility and the fact

that there was no lease between Far West Fibers and the Willamette Industries 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 the two-year period to file an application after substantial completion of the facility construction.

On December 8, 1999 and December 10, 1999, Willamette Industries presented information that had not been previously presented to the Department – two years after they received a copy of the finalized Review Report and beyond the 180 days in which they had to submit additional information. They claimed that two elements had not been completed until after December 31, 1993; therefor, the facility was not substantially complete.

<i>Application Received</i>	12/26/1995
<i>Additional Information Requested</i>	06/12/96
<i>Letter Requesting Additional Time to Provide Additional Information</i>	12/2/96
<i>Reminder of Expiration of 180 Period to Provide Additional Info</i>	05/01/97
<i>Additional Information Provided</i>	5/30/97
<i>Application Complete</i>	10/12/1997
<i>Scheduled Before Commission</i>	11/21/97
"	12/11/98
"	11/18/99
"	12/20/99
<i>Additional Information Provided</i>	12/8/99
<i>Additional Information Provided</i>	12/10/99
<i>Additional Information Provided – Cost Documentation</i>	1/06/99
<i>Construction Started</i>	05/01/1993
<i>Construction Completed</i>	9/27/1993
<i>Facility Placed into Operation</i>	9/27/1993

Facility Cost

Claimed Cost		\$2,596,818
Unclaimed Allowable Cost		358,600
Fire Protection System allocated to EMR	(\$47,215)	
DCE Dust Filter System	(25,352)	
Scales	(58,557)	
Misc. (Signs, curbs, fences, landscaping)	(11,579)	
Non-Allowable	(\$142,703)	(\$142,703)
Allowable Facility Cost		<u>\$2,812,715</u>

	Amount	Invoice Number	Invoice Date
Fire	\$ 8,500.00	4586	6/21/93
Protection	\$ 6,500.00	4623	7/23/93
	\$ 14,626.80	4650	8/25/93
	\$ 2,775.00	4674	9/24/93
	\$ 14,813.20	4656	9/20/93
	\$ 1,390.00	4764	12/22/93
	<u>\$ 47,215.00</u>		
DCE Dust	\$ 8,404.00	5736	8/12/93
Control	\$ 8,265.03	7497	12/16/93
	\$ 4,341.50	1208	2/18/94
	\$ 4,341.50	1219	3/21/94
	<u>\$ 25,352.03</u>		
Morris Scale	\$ 17,333.33	061893-1	6/16/93
	\$ 2,690.00	19982	9/23/93
	\$ 17,333.33	51093-02	5/10/93
	\$ 17,333.33	102093-1	10/20/93
	\$ 2,500.00	F10840	12/7/93
	\$ 1,367.00	21094-02	2/10/94
	<u>\$ 58,556.99</u>		

Invoices and vouchers substantiated the facility cost. Overhead was allocated by an acceptable method. Maggie Vandehey performed the accounting review on behalf of the Department. KPMG Peat Marwick, LLP provided the accounting review on behalf of the applicant.

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 factors listed in OAR 340-16-030(1)(g). Therefore, the Department considered the factors in ORS.468.190 (1) to determine the percentage of the facility

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

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 average annual cash flow for the facility is determined by the lease amount stated in the facility lease. The average annual income from the lease is \$135,000. Only 93%, or \$125,550, of the lease payment is allocable to the claimed facility because a portion includes office and other space not included in the claimed facility.</p> <p>The applicant did not include income associated with the sale of recovered material or expenditures incurred during the recovery process. This information is not available to them as the lessor of the facility and was not considered in determining the return on investment.</p> <p>Using lease payments only, the return on investment of 0% is calculated by using the allowable facility cost (\$2,812,715), the useful life of the facility (20 years), and average annual income of \$125,550 according to OAR 340, Division 16. This resulted in the determination that 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. Willamette Industries purchases material from this material recovery process at a fair market value.
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: William R Bree, DEQ;
M.C.Vandehey, DEQ



Tax Credit Review Report

EQC 12/30/1998

Director's
Recommendation: **APPROVE**

Applicant	Georgia-Pacific West Corp.
Application No.	4948
Facility Cost	\$79,155,790
Percentage Allocable	100%
Useful Life	10 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 an integrated containerboard manufacturing facility taking tax relief under taxpayer identification number 58-2142537. The applicant is the owner of the facility. The applicant's address is:

**1 Butler Bridge Road
PO Box 580
Toledo, OR 97391**

Facility Identification

The certificate will identify the facility as:

A waste paper recycling plant which recovers 600 tons/day of post consumer waste paper for use in the manufacture of containerboard.

The facility is located at:

**1 Butler Bridge Road
Toledo, OR 97391**

Technical Information

The claimed facility is additions to and remodeling of portions of a pulp and paper mill that manufactures liner-board and corrugating medium used in the manufacture of corrugated boxes. This mill uses post consumer waste paper including old corrugated containers as part of its feedstock. The claimed facility is modifications to the mill to reduce the amount of virgin fiber and increase the amount of recycled fiber used by the mill. The changes also result in a substantial increase in the total amount of pulp used by the mill. The applicant invested over \$116 million to shut down 350 tons per day of their kraft pulping capacity (out of 1200 tons per day) to install and make modifications to be able to consume over 600 tons per day of post consumer waste paper as raw material.

The following elements are eligible for solid waste/recycling pollution control facility tax credit.

1. New "old corrugated containers" (OCC) Warehouse

The new tonnage of waste paper, 600 tons/day, to be handled by the mill required the addition of about 40,000 square feet of warehouse space that is used solely for the storage of old corrugated containers prior to recycling.

2. New OCC Plant #2

A new old corrugated container processing, pulping, plant was constructed to handle the additional feedstock. The process can be briefly described in the following steps:

- a. Pulping the old corrugated containers with water in a vat containing a powerful agitator/grinder.
- b. Cleaning the pulp by a series of separation steps including coarse screening, centrifugal separation, and fine screening.
- c. Thickening the pulp so it can be stored for use in the paper mill.
- d. Reject materials generated in these processes are separated and collected for disposal.

3. Modifications of Stock Prep for #3 Paper Machine

The use of more waste paper as raw material required modifications and additions to the existing stock preparation equipment. The equipment refines the feed to the paper machine by grinding and blending. Since waste fibers were initially ground when they were first made into paper, they need a different treatment in stock preparation to produce a suitable pulp for the machine. This equipment includes the refining and blending of the waste paper pulp to meet different requirements for different grades of container-board. The OCC pulp is also blended with different mixes of softwood and hardwood pulps to make different products.

4. Rebuild and modification of #3 Paper Machine

The fibers from post consumer waste have less strength than fibers from virgin wood and they are harder to de-water on the paper machine. The applicant made significant changes to the #3 paper machine specifically to handle increased amounts of recycled fiber stock. These changes included increasing the pressing and drying capacity of the #3 paper machine to increase the tonnage of container board produced each day by using recycled fibers. Prior to these modifications the #3 paper machine was operational and adequate to produce paper board from waste paper and virgin kraft pulp. All modifications to the machine and changes in its process and capacity were directly related to the replacement of some virgin pulp with a larger quantity of recycled pulp, thereby increasing the production from the machine and the consumption of the wastepaper.

Eligibility

ORS 468.155 The **sole purpose** of the previously listed components is to recycle or directly (1)(b) facilitate the recycling of a substantial quantity of old corrugated containers; thereby, reduce that amount of solid waste in the state.

ORS 468.155 The portions of the facility that pass the First Level Eligibility Criteria provide a (1)(b)(D) 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 submitted within the timing requirements of ORS 468.165 (6).

<i>Application Received</i>	<u>12/31/97</u>
<i>Additional Information Requested</i>	<u>3/17/98</u>
<i>Additional Information Received</i>	<u>9/13/98</u>
<i>Additional Information Received</i>	<u>10/12/98</u>
<i>Application Substantially Complete</i>	<u>10/15/98</u>
<i>Construction Started</i>	<u>5/1/95</u>
<i>Construction Completed</i>	<u>4/5/96</u>
<i>Facility Placed into Operation</i>	<u>4/5/96</u>

Facility Cost

Project Elements	Facility Costs		
	Eligible	Ineligible	
Claimed Facility Cost			\$ 115,826,746
Stores relocation		\$ 75,164	
Mill general		\$ 1,557,376	
Railroads		\$ 795,453	
Waste treatment		\$ 461,722	
Underground fire protection		\$ 245,046	
Power distribution		\$ 645,766	
#5 Power Boiler		\$ 2,396,506	
Hog Fuel Boiler		\$ 1,035,238	
#3 Paper Machine rebuild	\$ 29,908,584		
Recovery boilers		\$ 9,018,054	
#1 OCC plant modifications		\$ 416,450	
New #2 OCC plant	\$ 17,913,572		
New OCC storage warehouse	\$ 3,303,225		
Stock prep. #3 Paper Machine	\$ 3,960,054		
Demolition/relocation		\$ 2,995,563	
Temporary facilities		\$ 99,824	
Freight		\$ 90,290	
Testing and inspection		\$ 249,578	
Capital spare parts		\$ 1,541,135	
Erection supervision and startup		\$ 543,741	
Working Capital spare parts		\$ 393,839	
Working Capital other		\$ 2,959,000	
Subtotal Direct	\$ 55,085,435	\$ 25,519,745	
Indirect Prorate	68.34%	31.66%	
Subtotal Indirect	\$ 24,070,355	\$ 11,151,211	
Adjusted Facility Cost	\$ 79,155,790	\$ 36,670,956	\$ 115,826,746

Total Indirect	
Contractor indirects & fees	\$ 21,799,804
Engineering	\$ 12,144,371
GP admin. Division	\$ 786,338
GP admin. Corporate	\$ 491,053
Sub-Total Indirect	\$ 35,221,566

Arthur Anderson 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. A job cost listing, a listing of committed purchase orders by vendor for the total project substantiated the cost of the facility.

There were extensive contractor indirect costs, engineering costs, and corporate support costs charged to the full project. The Department prorated those cost to the eligible portion of the project at the same ratio as total eligible vs. ineligible project costs.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. Therefore, in accordance with ORS 468.190(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	As required this recycling facility produced a product of real economic value.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 10 years. There are no gross annual revenues associated with this facility or for the Toledo Mill for the next five years using the calculations provided in rule.
ORS 468.190(1)(c) Alternative Methods	No alternative investigated.
ORS 468.190(1)(d) Savings or Increase in Costs	All savings or increases in costs were considered in calculation of the return on investment.
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: Mar Seton, P.E., Principal, SJO Consulting Engineers, Inc.
 Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
 Dennis E. Cartier, Associate, SJO Consulting Engineers, Inc.
 Maggie Vandehey, MSD-DEQ



Tax Credit Review Report

EQC 9909

Director's
Recommendation: **APPROVE**

Applicant	Mitsubishi Silicon America
Application No.	5047
Facility Cost	\$157,664
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 and is operating as a supplier of electronic grade silicon wafers. The taxpayer's identification number is 94-1687933 and their address is:

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

Facility Identification

The certificate will identify the facility as:

EPI B2 Acid Exhaust Scrubber

The applicant is the owner of the facility located at:

**1351 Tandem Ave. NE
Salem, OR 97302**

Technical Information

The facility consists of an acid exhaust scrubber that treats the chemical exhaust from the silicon epitaxial process (EPI). The Harrington scrubber is a model ECH 78-5LB designed to supply 26,000 cfm at a static pressure of 1.5 inches w.c. and recirculate 280 gpm. It operates in tandem with an HPCA 4025 CCW 40 Hp fan.

The scrubber treats and removes 95% of the harmful acidic fumes associated with the EPI process. Scrubbers are considered best available technology for removing particulate from acid exhaust.

Eligibility

- ORS 468.155 The principal purpose of this new equipment and installation is to prevent, control or reduce a substantial quantity of air pollution.
- (1)(a)
- ORS 468.155 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.
- (1)(b)(B)

50005788

Timeliness of Application

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

Application Received	08/03/1998
Additional Information Requested	10/16/1998
Additional Information Received	10/20/1998
Application Substantially Complete	11/6/1998
Construction Started	07/05/1996
Construction Completed	07/12/1996
Facility Placed into Operation	08/01/1996

Facility Cost

Facility Cost	\$ 157,664
Ineligible Costs	\$ - 0
Eligible Facility Cost	<u>\$ 157,664</u>

Invoices or canceled checks were not provided to substantiate the cost of the facility. The facility cost was greater than \$50,000 but less than \$500,000; therefore, Symonds, Evans & Larson, P.C. performed an accounting review in accordance with Department guidelines but on behalf of the Applicant.

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	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 their facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: Stormwater 1200L, issued 3/93; ACDP D-24-4437, issued 5/96

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

50005789



Tax Credit Review Report

EQC 0005

Director's Recommendation:	APPROVE
Applicant	Mitsubishi Silicon America
Application No.	5103
Facility Cost	\$145,824
% 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. They are a **supplier of electronic grade silicon wafers.**

Their taxpayer identification number is 94-1687933 and their address is:

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

Facility Identification

The claimed facility is:

MOD 3B Ammonia Scrubber

The applicant is the owner of the facility located at:

**3950 Fairview Industrial Drive SE
Salem, OR 97302**

Technical Information

The claimed air pollution control facility consists of a Harrington ammonia exhaust scrubber, model ECH 4 4-5 LB. The facility is used to treat all ammonia process fumes from the polished wafer building. Corrosive ammonia fumes from various process exhaust lines are routed to the ammonia scrubber for treatment prior to discharge to the environment. This is a new operating plant. Without the scrubber, untreated ammonia fumes would be discharged to the atmosphere.

Eligibility

ORS 468.155 The **principal purpose** of this **new installation of equipment** is to **control a substantial quantity of air pollution.** The requirement is imposed by their ACDP 24-0001, issued 2/5/97.

ORS 468.155 The control is accomplished by the elimination of air contaminants and the use of (1)(b)(B) an air cleaning device as defined in ORS 468A.005.

Timeliness of Application

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

<i>Application Received</i>	10/20/98
<i>Additional Information Requested</i>	2/17/99
<i>Additional Information Received</i>	4/8/99
<i>Additional Information Received</i>	11/12/99
<i>Application Substantially Complete</i>	12/6/99
<i>Construction Started</i>	10/10/95
<i>Construction Completed</i>	6/11/96
<i>Facility Placed into Operation</i>	10/20/96

Facility Cost

Claimed Facility Cost	\$ 145,824
Ineligible Facility Cost	0
Eligible Facility Cost	\$ 145,824

The facility cost is greater than \$50,000 but less than \$500,000, therefore Symonds, Evans, & Larson provided the certified public accountant's statement on behalf of Mitsubishi Silicon America. The reviewers analysed the facility cost documentation in accordance with Department guidelines. A copy of the project cost ledger from the contractor substantiated 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. Considering these factors, the percentage 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 facility is not used to recover and convert waste products into a 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 10 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	Alternative methods, equipment and costs were not considered to achieve the same objective.
ORS 468.190(1)(d) Savings or Increase in Costs	There is an increase in operating costs as a result of installing this facility.
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 24-0001 issued 2/5/97.

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



Tax Credit Review Report

EQC 0005

Director's Recommendation:	APPROVE
Applicant	Mitsubishi Silicon America
Application No.	5105
Facility Cost	\$128,179
% 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. They are a **supplier of electronic grade silicon wafers**. Their taxpayer identification number is 94-1687933 and their address is:

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

Facility Identification

The claimed facility is:

Two MOD 3B Acid Exhaust Scrubbers

The applicant is the owner of the facility located at:

**3950 Fairview Industrial Drive SE
Salem, OR 97302**

Technical Information

The claimed facility consists of two Harrington MOD 3B acid exhaust scrubbers, both model ECH 8 5-5 LB and serial numbers S-081895-1 and -2, and their associated Harrington HPCA 3300 fans. The facility is used to treat acid process fumes from the polished wafer building. Corrosive fumes from various process exhaust lines are routed to the two MOD 3B Acid Exhaust scrubbers prior to discharge to the environment. This is a new operating plant. Without the scrubber, untreated acid fumes would be discharged to the atmosphere.

Eligibility

ORS 468.155 The **principal purpose** of this **new installation of equipment** is to **control a substantial quantity of air pollution**. The requirement is imposed by their ACDP 24-0001, issued 2/5/97.

ORS 468.155 The control is accomplished by the **elimination of air contaminants** and the use of (1)(b)(B) an air cleaning device as defined in ORS 468A.005.

Timeliness of Application

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

<i>Application Received</i>	<u>10/20/98</u>
<i>Additional Information Requested</i>	<u>2/18/99</u>
<i>Additional Information Received</i>	<u>4/8/99</u>
<i>Additional Information Received</i>	<u>11/12/99</u>
<i>Application Substantially Complete</i>	<u>12/6/99</u>
<i>Construction Started</i>	<u>10/10/95</u>
<i>Construction Completed</i>	<u>6/11/96</u>
<i>Facility Placed into Operation</i>	<u>10/20/96</u>

Facility Cost

Claimed Facility Cost	\$ 128,179
Ineligible Facility Cost	0
Eligible Facility Cost	<u>128,179</u>

The facility cost does not exceed \$50,000 however, Symonds, Evans, & Larson provided a certified public accountant's statement on behalf of Mitsubishi Silicon America. The reviewers analysed the project cost ledger from the contractor was provided to substantiated the cost of the claimed 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. Considering these factors, the percentage 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 facility is not used to recover and convert waste products into a 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 10 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	Alternative methods, equipment and costs were not considered to achieve the same objective.
ORS 468.190(1)(d) Savings or Increase in Costs	There is an increase in operating costs as a result of installing this facility.
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 24-0001 issued 2/5/97.

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



Tax Credit Review Report

EQC 0005

Director's Recommendation:	APPROVE
Applicant	Wacker Siltronic Corporation
Application No.	5140
<u>Claimed</u> Facility Cost	\$18,554,507
<u>Adjusted</u> Facility Cost	\$12,543,553
Percentage Allocable	0%
Useful Life	5 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 and they manufacture hyperpure silicon wafers. The applicant's taxpayer identification number is 94-2518330. The applicant's address is:

**7200 NW Front Avenue
Portland, OR 97210**

Facility Identification

The certificate will identify the facility as:

A wastewater collection system and treatment plant.

The applicant is the owner of the facility located at:

**7200 NW Front Avenue
Portland, OR**

Technical Information

The claimed facility consists of an organic wastewater pretreatment system and a wastewater treatment plant that includes four smaller treatment systems for fluoride, caustic, weak acids, and silicon solids. They both treat process effluent from Fab 2 manufacturing operations.

The pretreatment equipment set is an organic wastewater (OWW) collection tank system with two transfer pumps sized for 800 gpm average and 1600 gpm maximum. This two stage neutralization system includes two 27,500 gallon tanks with 19 foot long by 92 inch diameter turbine blade mixers, chemical feed pump systems for sulfuric acid, antifoam, and sodium hydroxide, monitoring equipment, controls designed to neutralize industrial wastewaters and a data acquisition system. Pretreated wastewaters containing organics are discharged to the Portland municipal treatment plant for further treatment of the organic constituents.

The second major equipment set includes four wastewater treatment systems consisting of fluoride, caustic, weak acids and silicon solids. The treatment system has wastewater collection tanks and forwarding pumps for caustic wastewater, concentrated acid etch solutions, fluoride wastewater, weak acid wastewater, silicon solids wastewater, and cutting oil collection. The wastewater forwarding system transfers the wastewater from Fab 2 processes to each treatment system.

The fluoride treatment system is the most complex treatment system. The fluoride treatment system uses direct addition of lime to treat wastewaters containing from approximately 3,000 mg/l fluoride. This system is called the Concentrated Acid Drain (CAD) system and consists of a lime silo, mix system and delivery system, two static inline mixers feeding two 35,000 reaction tanks with 24 foot by 92 inch Sharpe mixers which creates a CaF_2 precipitate. The process operates at a pH range of 10 to 11. The fluoride precipitate and lime solids are removed by a Didier Hydrozyklon with sludge rake for solids settling, followed by a 15,500 gallon sludge tank with mixer and sludge transfer pumps that supply a 100 gpm Duriron filter press. The capacity of the CAD fluoride and solids removal system is 500 gpm average and 700 gpm maximum. The effluent from the fluoride treatment system is mixed with wastewater from the Weak Acid Drain (WAD) treatment system.

The WAD system consists of three 35,000 gal tanks with 25 foot by 92 inch Sharpe mixers, caustic storage tank, sulfuric acid storage tank, and dual feed controllers for sulfuric acid and sodium hydroxide or caustic wastewater. The WAD neutralization reaction tanks are followed by three 560 gpm Parkson Dynasand Filters which remove residual total suspended solids. Silicon solids wastewater is treated in the fluoride system to take advantage of the solids removal capability. Caustic wastewater is treated in the OWW or the WAD treatment system depending on capacity and neutralization needs. The WAD system also receives treated effluent from the fluoride removal system. The capacity of the WAD system is 1000 gpm average with a peak capacity of 2000 gpm.

All wastewater from the neutralization system, fluoride treatment system and solids removal system is processed through sand filters for final polishing before discharge to the Willamette River.

All wastewater collection and forwarding sump equipment, treatment equipment and tanks are inside secondary containment systems to control drips or incidental spills. All pump systems and primary control valves have redundant backup.

Concentrated caustic wastewater is collected separately and metered into the waste stream by pH set point to minimize the use of additional treatment chemicals. Concentrated acids are collected separately and metered into the waste treatment system to minimize peak loads on the system. Silicon solids containing wastewater is collected separately to allow flexibility in the choice of treatment system.

Had the claimed facility not been built, chemical solutions used for the manufacture and cleaning of silicon wafers would not be treated or removed from the waste waters resulting in a 2-4 million gallon per day increased hydraulic loading on the City of Portland treatment plant. At full production approximately 125,000 gallons of various chemical solutions are used per day which result in a wastewater contaminant concentration of 83,000 mg/l before treatment.

The WWTP capacity is 4.2 MGD of treated wastewater containing up to 125,000 gallons of chemical solutions in various concentrations. Approximately 2.7 MGD of the capacity is treated under the NPDES discharge permit. NPDES wastewater treatment standards are typically 17 mg/l or less for most parameters. The performance of the new WWTP facility is typically 6 mg/l for most permit parameters and equates to a treatment efficiency of 99.99%. Approximately 1.5 MGD treated wastewater is discharged to the City under a POTW pretreatment permit. POTW discharge standards are typically 300 mg/l for total suspended solids and biological oxygen demand for both households and industry. The WWTP neutralizes acids and caustics to 100% efficiency and averages 140 mg/l or

less for both TSS and BOD parameters resulting in an overall pretreatment efficiency of 99.88%.

Eligibility

- ORS 468.155 (1)(a) The principal purpose of these two wastewater treatment systems is to control a substantial quantity of water pollution.
- ORS 468.155 (1)(a) The primary purpose of the following items is not pollution control. The purpose of the HVAC is to condition internal air space for a comfortable work environment. The primary purpose of the flow monitoring system is for billing and reporting. The primary purpose of the piping and drains is material handling within the process environment. The primary purpose of the heat tracing is to prevent the pipes from freezing. The purpose of Zyklon was not defined.
- ORS 468.155 (1)(b)(A) The wastewater treatment is accomplished by the elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005. The HVAC, the flow monitoring system, Zyklon and process piping and process drains do not dispose of or eliminate industrial waste with the use of a treatment as defined in ORS 468B.005.

Timeliness of Application

The applicant claimed the facility was placed into operation a year before construction was completed.

<i>Application Received</i>	12/29/1998
<i>Application Substantially Complete</i>	04/27/2000
<i>Construction Started</i>	01/01/1995
<i>Applicant Claimed Construction Completed</i>	01/01/1998
<i>Applicant Claimed Placed In Operation</i>	01/01/1997

Facility Cost

Claimed Cost	\$18,554,507
Non-Allowable Costs:	
HVAC	- 35,620
Flow Monitoring System for billing & compliance purposes.	- 1,779,236
Non-Wastewater Plumbing	- 344,007
Wastewater Pipe Insulation	- 293,410
Process Drain – Oil and Seal Water Drain Piping	- 6,542
Heat Tracing – keeps pipes from freezing – (part of cost could be allowable if used in treatment plant.)	- 382,972
Zyklon – unknown contribution	- 223,653
General Contractor Costs Associated with Above	- 133,098
Process Building Drain Piping	- 2,680,918
Central Facilities Building Drain Piping	- 131,498
Non-Allowable Costs	-6,010,954
Eligible Facility Cost	12,543,553

The facility cost exceeds \$500,000. The reviewers analysed the facility cost on behalf of the department. A Combined Cost Report, prepared by Hoffman Construction, was provided to substantiate the claimed facility cost. Arthur Andersen LLP performed an

accounting review on behalf of Wacker. The reviewers analysed the facility costs on behalf of the department.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190 (1), the following factors listed 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.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment calculation is 5 years. The applicant claimed zero gross annual revenues associated with the facility. Gross annual income includes operational savings that include the savings realized by discharging to the Willamette River. The applicant avoided a \$19,000,000 City of Portland systems development charge and an estimated \$4,400,000/year in discharge fees to the City of Portland.
ORS 468.190(1)(c) Alternative Methods	The applicant states no alternatives were considered.
ORS 468.190(1)(d) Savings or Increase in Costs	The application did not address any savings or increase in costs. The Department determined the cost savings of installing the treatment system instead of discharging to the City of Portland Treatment system. Based on a discharge rate of 2.7 million gallons per day, the one time hook-up costs would have been \$19,792,541. The estimated charges for volumetric flow would be \$369,107 per month (\$4,429,285 annually).
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

Based on the Return On Investment calculation, the percentage of the facility cost allocable to pollution control is **0.0%**.

Compliance and Other Tax Credits

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility: NPDES individual permit, NPDES 1200-Z general industrial storm water permit; Air Contaminant Discharge Permit; Large Quantity Generator.

Reviewers: Maggie Vandehey, DEQ
Elliot J. Zais, PhD, PE



Tax Credit Review Report

EQC 0005

Director's Recommendation: **APPROVE**

Applicant	Smurfit Newsprint Corporation
Application No.	5236
Facility Cost	\$24,184
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: **manufacturer of particleboard**
Taxpayer ID: **93-0361650**

Facility Identification

The certificate will identify the facility as:
A enclosure around truck loading area

The applicant's address is:

**427 Main Street
Oregon City, OR 97045**

The applicant is the owner of the facility located at:

**1744 Main Street
Sweet Home, OR 97384**

Technical Information

The claimed facility is the installation of two- (2) baghouse dust control systems, the removal of two- (2) cyclones and rearrangement of existing pneumatic conveyor piping, and the installation of two- (2) waste wood truck bins.

Baghouse System: The two-baghouse systems were added to collect the dust-laden air from a number of existing cyclones that are part of an existing pneumatic conveying system. Prior to this installation, these cyclones discharged directly to the atmosphere. The baghouse installations are required to prevent the air borne particulate discharge of the cyclones from becoming airborne and being deposited on the property of others (OAR 340-025-0310). Removal of two- (2) cyclones facilitated and simplified the installation of the baghouse system.

Pneumatic conveying systems: Material collected at the baghouses is conveyed by pneumatic conveying systems to the truck bins.

Two- waste wood truck bins: These bins are used to store waste wood material until a truck load volume is accumulated for shipment off-site. These bins are of bottom discharge design to bulk load

open-top trailers. The trailers are pulled into loading position and the bin bottom opens to discharge material from the bins.

Trailer loading area: The trailer loading area is entirely enclosed with roll-up doors at the entrance and exit openings to the loading area. These doors are closed during the loading process to prevent dust becoming airborne and escaping the plant property. The bin enclosure is solely designed to prevent dust from becoming airborne when the bins are being unloaded.

Eligibility

ORS 468.155 (1)(a) **The sole purpose of this new baghouse equipment installation and truck bin enclosure is to prevent, control or reduce a substantial quantity of air pollution.**

The purpose of the **pneumatic conveying systems and the two waste wood truck bins** is not to prevent, control or reduce a substantial quantity of air pollution. Their purposes is to provide for material handling.

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

The pneumatic conveying systems and the two waste wood truck bins do not eliminate air pollution with the use of an air cleaning device as defined in ORS 468A.005.

Timeliness of Application

The applicant's records indicate that major portions of the claimed facility were put into operation before the total facility construction was completed in 11/97. Those portions were **not** submitted within the timing requirements of ORS 468.165 (6). The applicant's depreciation ledger indicates that 92.4% of the claimed facility was in operational service more than two years before the Department received the application.

Application Received	7/26/99
Requested additional information	8/30/99
Received information	9/24/99
Requested additional information	10/7/99
Received letter from applicant's attorney w/o requested information	12/8/99
Application Substantially Complete	12/8/99
Construction Started	12/1/95
<u>Claimed</u> Construction Completed	11/1/97
(from examination of applicant's ledger)	
Majority of baghouse installation and piping, truck bins, major portion of pneumatic conveying system	9/96
Final portion of pneumatic conveying system,	3/97
Enclosure around truck bins	11/97
Placed into Operations (from examination of applicant's depreciation ledger)	
Majority of baghouse installation and piping, truck bins, major portion of pneumatic conveying system,	12/96
Final portion of pneumatic conveying system,	3/97
Enclosure around truck bins	11/97

Cost Facility

The claimed facility cost was greater than \$50,000 but less than \$500,000. Therefore, Ernst & Young LLP performed an accounting review according to Department guidelines on behalf of the applicant. Eligible facility costs represent the expenditures for construction of the enclosures around the waste wood truck bins.

Invoices (as entered in the applicant's accounting ledger) substantiated the cost of the enclosure.

Facility Cost

	\$ 318,325
Ineligible costs due to timeliness	(\$294,141)
Eligible Facility Cost	<u>\$24,184</u>

The claimed facility cost was greater than \$50,000 but less than \$500,000. Therefore, Ernst & Young LLP performed an accounting review according to Department guidelines on behalf of the applicant. Eligible facility costs represent the expenditures for construction of the enclosures around the waste wood truck bins.

Invoices (as entered in the applicant's accounting ledger) substantiated the cost of the enclosure

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%.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	Sale of wood waste collected amounts to about 286 tons/year. This material is sold for \$6.56 /ton delivered. Transportation cost is \$15.73/ton, resulting in a net loss of <\$9.17>/ton. This is included in the increase-in-cost calculation below.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 23 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	Applicant's calculations indicate that the claimed facility increases the manufacturing plant's net annual operating cost by \$19,182 per year.
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. Other certificates issued to applicant are:

App.No	Description of Facility	Claimed	Percent	Facility Location	Issue
4677	BAG HOUSE	\$245,846	100%	PHILOMATH	6/5/97
4676	Press vent wet scrubbing system installed to control emissions of particulate matter and formaldehyde.	\$366,710	100%	PHILOMATH	6/5/97
4101	ELECTRSTATIC PRECIPITATOR	\$3,668,754	100%	NEWBERG	12/10/93
2116	SLUDGE DE-WATERING SYSTEM	\$1,014,833	100%	OREGON CITY	11/4/88
2010	INSTALLATION OF A RADER 88"	\$74,978	100%	PHILOMATH	9/9/88

DEQ permits issued to facility:

Title V Operating Permit, 22-7137, Issued 5/14/98; Expires 7/01/02

Reviewers: Darrel Allison/HCMA Consulting Group
Maggie Vandehey, DEQ

50009200

AFFIDAVIT OF RUSSELL M. SHEFFER

STATE OF OREGON)
 WASHINGTON)
COUNTY OF MULTNOMAH)
)

I, Russell M. Sheffer, being first duly sworn, depose and say:

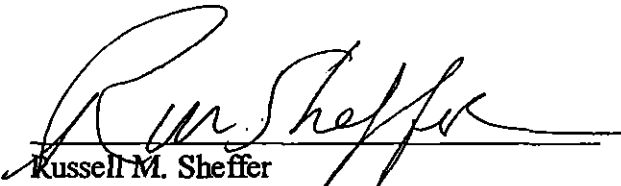
1. I make this affidavit based on my own personal knowledge. I am competent to testify to the matters stated below.
2. I was previously employed by Willamette Industries, Inc. ("Willamette"), for 35 years. During the years of 1985 to 1995 (prox) I was Fiber Procurement Manager (title).
3. During 1993, I was involved in the management and oversight of the construction of Albany Paper Mill—East Multnomah Recycling ("EMR"), 12820 N.E. Marx Street, Portland, Oregon 97230. As part of my management duties, I was directly involved in the negotiations concerning the lease between Willamette and Far West Fibers, Inc. ("Far West Fibers").
4. EMR was designed and constructed by Willamette for the specific purpose of leasing the facility to Far West Fibers. EMR was never held out for lease to the general public. Willamette's sole use of the building and equipment was in conjunction with the lease to Far West Fibers.
5. At the time EMR was constructed and leased, Willamette was not engaged in the business of leasing equipment or buildings.
6. In late January 1994, Far West Fibers and Willamette entered into the lease for EMR. By its terms, the lease was made effective as of January 1, 1994.
7. Willamette, as lessor, and Far West Fibers, as lessee, selected January 1, 1994, as the beginning date for the lease because--given the ongoing construction of the facility,

the recognized shakedown period, and certain missing pieces of equipment, such as the DCE dust filtration system--January 1, 1994, represented a fair and reasonable date for rent to begin accruing.

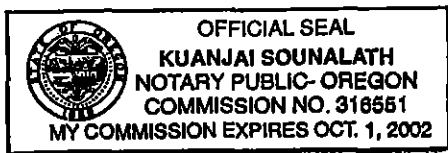
8. Far West Fibers paid rent for the period from and after January 1, 1994.

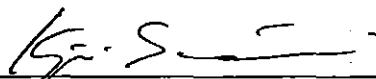
No rent was paid for the period prior to January 1, 1994.

DATED this 16th day of June, 2000.


Russell M. Sheffer

The foregoing affidavit was subscribed and sworn to before me by Russell M. Sheffer this 16th day of June, 2000.




Notary Public for Oregon
My commission expires: OCT. 1, 2002



**Tax Credit
Review Report**

EQC 0002?

Director's
Recommendation: **REJECT**
Untimely Submittal
Applicant **Willamette Industries, Inc**
Application No. **4570**
Facility Cost **\$2,470,589**
% Allocable **100%**
Useful Life **20 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:

**Enterprise Baler (Model 16-ezrrb-200),
Kraus Baler Conveyor (93KRACONV0050)
Krause Sorting Conveyor
(93KRACONV0050), Michigan Wheel Loader
(SN L-70v61201), Mitsubishi 6Mlb Fork Trk
(SNAF89A-00546), Mitsubishi 6Mlb Fork
Trk(SNAF89A-00529), etc.**

The dust control system and scales do not show
here.

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**First Level 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)(a) The fire protection system fails the sole purpose test because it is required as part of the fire code. It does not prevent, control or reduce a substantial quantity of solid waste and it does not use a material recovery process.

I do not agree that the dust control system is not a part of the recycling equipment.

It is a customary part of a this type of baling system and tis systemwas designed with this component. (Do we disect each piece of equipment and make a decision if each part individually performs material recovery?)

ORS 468.155 (1)(a)

The DCE dust filter system fails the sole purpose test because it's purpose is to filter out particulate matter and remove it from the air rather than preventing, controlling or reducing a substantial quantity of solid waste. "The DCE dust filter system lowers the level of dust in the building, keeps dust out of the work area and off the equipment, and helps insure safe driving conditions for forklift operators in the facility." (*Affidavit of Marc W. Olsen, Willamette Industries, Inc., Project Manager, East Multnomah County Recycling, December 8, 1999.*) This component is not eligible as an air pollution control facility since it fails the definition of an air pollution control facility for tax credit purposes.

I do not agree that the scales do not meet the sole purpose test. They are a necessary part of the recycling facility. Their sole purpose is handling recyclable material. Purchase and sale of recyclable material is a necessary part fo the recycling process which must produce a salable product.

ORS 468.155 (1)(a)

The Toledo platform scales fail the sole purpose test because they are used for billing purposes rather than preventing, controlling or reducing a substantial quantity of solid waste.

Second Level Eligibility

ORS 468.155 (1)(b)(D) The portions of the facility that pass the First Level Eligibility Criteria provide 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 Far West Fibers plant manager affirmed this date as the date the facility began operating. The Department considers September 27, 1993 as the date construction was completed.

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 of the substantial completion of the facility construction. Subscribing to this interpretation the application would have been submitted in a timely manner.

In addition the applicant has provided additional documentation that the claimed facility as described in the application was not substantial complete, in all designed components, until after January 1994. While the Department might not feel that a portion of the facility is eligible for tax credit and remove reduce the facility value accordingly can we also change the date of completion by removing components. It appears that the applicant is restricted from make their application until all of the components of the claimed facility are complete. They would have no way of knowing which components the Department might identify as having costs not eligible in the certified value.

<i>Application Received</i>	12/26/1995
<i>Additional Information Requested</i>	06/12/96
<i>Letter Requesting Additional Time to Provide Additional Information</i>	12/2/96
<i>Reminder of Expiration of 180 Period to Provide Additional Info</i>	05/01/97
<i>Additional Information Provided</i>	5/30/97
<i>Application Substantially Complete Scheduled Before Commission</i>	10/12/1997
	11/21/97
	12/11/98
	11/18/99
	12/20/99
<i>Additional Information Provided</i>	12/8/99
<i>Additional Information Provided</i>	12/10/99
<i>Additional Information Provided – Cost Documentation</i>	1/06/99
<i>Construction Started</i>	05/01/1993
<i>Construction Completed</i>	9/27/1993
<i>Facility Placed into Operation</i>	9/27/1993

Facility Cost

Claimed Cost

\$2,596,818

Fire Protection System allocated to EMR

(\$32,886)

DCE Dust Filter System	(18,706)	
Toledo Platform Scales	(72,101)	
Overhead allocated to ineligible costs	(2,536)	
Ineligible	(126,229)	
Allowable Facility Cost		\$2,470,589

Maggie Vandehey performed the accounting review on behalf of the Department.

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 factors listed in OAR 340-16-030(1)(g). Therefore, the Department considered the factors in ORS.468.190 (1) to determine the percentage of the facility cost allocable to pollution control. Considering these factors, the percentage 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 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	The average annual cash flow for the facility is determined by the lease amount stated in the facility lease. The average annual income from the lease is \$135,000. Only 93%, or \$125,550, of the lease payment is allocable to the claimed facility because a portion includes office and other space not included in the claimed facility. The applicant did not include income associated with the sale of recovered material or expenditures incurred during the recovery process since this information is not available to them as the lessor of the facility. This information was not considered in determining the return on investment. Using lease payments only, the return on investment of 0% is calculated by using the allowable facility cost of \$2,470,589, the useful life of 20 years, and average annual income of \$125,550 according to OAR 340, Division 16. This resulted in the determination that 100% of the facility cost is properly allocable to pollution control.
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. Willamette Industries purchases material from this material recovery process at a fair market value.

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: William R Bree, DEQ; M.C.Vandehey, DEQ

Kuerschner, Caroline E.

From: VANDEHEY.Maggie@deq.state.or.us
Sent: Monday, June 19, 2000 1:14 PM
Subject: WI - Draft Review Report



4570-20_.doc

<<4570-20_.doc>>

Carrie,

Here is the protected draft report requested as part of your public records request --specifically identified as Item 5 on your June 16, 2000 facimile.

Maggie

RICHARD G. COOPER AND JUNE A. COOPER, ET AL.,¹
 PETITIONERS v. COMMISSIONER OF INTERNAL REVENUE,
 RESPONDENT

Docket Nos. 5317-83, 6450-83, Filed January 13, 1987.
 8352-83, 8798-83,
 9677-83, 29230-83,
 34818-83, 529-84,
 25826-84.

Ps purchased solar water heating systems, on a leveraged basis, from Bliss; thereafter, pursuant to a prearranged agreement, Ps leased the systems to Coordinated for a term of 7 years. Coordinated subleased the systems to homeowners. Included in Ps' lease agreement with Coordinated was an option whereby Ps could require Coordinated to purchase the systems upon the expiration of the lease for an amount not less than the balance still owed on the notes to Bliss. Bliss guaranteed Coordinated's obligations under the leases. *Held*: Ps entered into the transactions with a bona fide objective to make a profit. The sales from Bliss to Ps were bona fide, as were Ps' debts to Bliss, and Ps' leases with Coordinated. *Held, further*: Ps purchased a package from Bliss which consisted of solar water heating equipment (for which Ps are entitled to both depreciation deductions and investment and energy tax credits), contract rights, and a potential stream of income; the value of the equipment is determined to be \$1,000 per system. The balance paid by Ps to Bliss were for other parts of the package. *Held, further*, through the put options, Ps were protected against economic risk on their notes to Bliss; accordingly, Ps are not at risk for purposes of sec. 465, I.R.C. 1954, with respect to the amount owed to Bliss in excess of the amount recoverable through the put options.

Thomas O'Grady, for the petitioners in all dockets.

Marvin C. Gutter and *Richard A. Josepher*, for the petitioners in docket No. 34818-83.

Lawrence A. Schechterman, for the petitioner in docket No. 8352-83.

¹Cases of the following petitioners are consolidated herewith: North American Financial Corp., docket No. 6450-83; Nationwide Power Corp. (formerly Southeast Equity Management, nc.), docket No. 8352-83; Robert J. McAndrews, docket No. 8798-83; Michael E. Arnone and Jilda Arnone, docket No. 9677-83; William A. Duncan and Doris Duncan, docket No. 29230-83; Phillip Dash and Harriet Dash, docket No. 34818-83; Bob R. Jenny and Joan M.

Bonnie L. Rosner and *W. Robert Abramitis*, for the respondent.

JACOBS, *Judge*: Each of these consolidated cases involves the disallowance of deductions and tax credits claimed by petitioners² in connection with their purchases of solar water heating systems from A.T. Bliss & Co., Inc. (A.T. Bliss). Appendix A lists petitioners by name, the tax years involved, the deficiencies and additions to tax for each year, the place of residence for each individual petitioner, and the principal place of business for each corporate petitioner at the time their respective petitions were filed. Other issues unrelated to the aforementioned issue common to all petitioners are presented with respect to several petitioners; those issues and the petitioners concerned with such issues are set forth in Appendix B.

FINDINGS OF FACT

Some of the facts have been stipulated and are so found. The stipulations of fact and attached exhibits are incorporated herein by this reference.

During 1979 and 1980, each petitioner entered into an agreement with A.T. Bliss for the purchase, on a leveraged basis, of solar water heating systems.³ A.T. Bliss sold such systems to petitioners pursuant to three separate sales programs; viz, the 1979 program, the first half 1980 program, and the second half 1980 program. Each system sold under the 1979 program and the first half 1980 program consisted of: (1) A 48-inch by 120-inch solar collector panel; (2) a heavy duty liquid flow control pump; (3) temperature and flow sensors; and (4) an electronic control panel. The solar water heating equipment sold under the second half 1980 program consisted of a 48-inch by 120-inch solar collector panel, "plus all other components, as needed, such as heavy duty liquid flow control pump, temperature and flow sensors, and electronic control panel."

²For convenience, petitioners who filed joint returns as husband and wife are referred to as one petitioner.

³Although the systems were suitable for both commercial and residential uses, the systems involved herein were used solely in residences.

The solar water heating systems were offered for sale either as a full lot consisting of 27 systems or as a half lot consisting of 13 systems. The purchase price of a full lot was \$100,000 (\$3,704 per system); the purchase price of a half lot was \$50,000 (\$3,846 per system). A.T. Bliss had purchased the various components comprising a system from November, 1979 through 1980 at an average cost per system of between \$250 and \$300.

Petitioners Nationwide Power Corp. (Nationwide), which was formerly Southeast Equity Management, Inc., North American, Arnone, and Cooper each purchased systems from A.T. Bliss under the 1979 program. Pursuant to the terms of the 1979 program, each purchaser made a downpayment equal to 20 percent of the total purchase price and gave a note for the balance. The note bore interest at the rate of 6 percent per annum and was payable in equal monthly installments over 30 years. The purchasers had the option of deferring half the downpayment until April 1, 1980; interest at the rate of 12 percent accrued on the deferred portion of the downpayment.

The remaining petitioners (Brill, Dash, Jenny, Duncan, and McAndrews), as well as Arnone, purchased systems under the 1980 programs. The downpayment under the 1980 programs was \$25,000 for full lot purchases and \$14,000 for half lot purchases. The balance of the purchase price (evidenced by the purchaser's note) was payable over 15 years with interest at the rate of 7½ percent per annum; for the first 7 years, interest only was payable. The downpayment could be paid in installments, with the entire downpayment due by April 1, 1981; interest at the rate of 2 percent accrued on the unpaid balance of the downpayment.

The purchaser's note under both the 1979 and 1980 programs could be full recourse or nonrecourse⁴ at the purchaser's option. Some recourse notes bore the notation that they were not negotiable. Petitioners Cooper, Duncan, Jenny, and Brill executed nonrecourse notes; petitioners Nationwide, McAndrews, Arnone (with respect to his 1979

⁴The purchaser was advised that if nonrecourse financing was chosen, due to application of the "at risk" rules, the depreciation deduction would be limited to the amount of the downpayment.

purchase), and Dash executed recourse notes. No evidence was presented as to the nature of the notes of petitioners North American and Arnone (with respect to his 1980 purchase). All the notes, recourse as well as nonrecourse, were secured by the systems purchased from A.T. Bliss.

By prearrangement, the purchasers could lease their systems to Coordinated Marketing Programs, Inc. (Coordinated), a Florida corporation whose principal place of business was located in the same building as that of A.T. Bliss.⁵ Edward Roy was the president and a director of Coordinated from its inception in 1977 until January 15, 1979; he was also the president and chairman of the board of directors of A.T. Bliss from November 9, 1979, until December 31, 1981.⁶ Mr. Roy's successor as president of Coordinated was Victor Perella; from 1979 to 1981, Mr. Perella owned 182,500 of the 3 million outstanding shares of A.T. Bliss.⁷

Petitioners leased their systems to Coordinated and received a monthly rental of \$19.25 per system.⁸ The term of each lease was 7 years. At the end of the 7 year term, petitioners had the option (referred to herein as a put option) of requiring Coordinated to purchase the leased systems for \$35,000 for a half lot, or \$75,000 for a full lot. Thus, by exercising their put options, petitioners would receive an amount from Coordinated approximately equal to the outstanding balance on their notes to A.T. Bliss. The performance of Coordinated under the lease agreements (including its obligation to purchase the systems if petitioners exercised their put options) was unconditionally guaranteed by A.T. Bliss.

Since it was anticipated that each purchaser would lease the systems to Coordinated, and Coordinated would sublease and install the systems on the ultimate users' roofs, physical delivery of the solar water heating systems was not taken by purchasers. In this respect, petitioners' lease with Coordinated provided as follows:

⁵Initially, purchasers entered into leases with Coordinated. In August 1980, Nationwide succeeded Coordinated in leasing the solar water heating systems from them. To avoid confusion, we will refer to the lessees as Coordinated.

⁶At all relevant times, Edward Roy was the president and sole shareholder of petitioner North American.

⁷Mr. Perella was also president of petitioner Nationwide.

⁸Coordinated subleased the systems to the purchasers.

Lessor is aware that the equipment covered by this lease will be installed in individual buildings. The Lessee agrees to hold the Lessor harmless for any claims by third parties, including liens for taxes, etc. The Lessor agrees that as long as the Lessee is not in default under the term of this lease, the Lessor shall have no right or equity in any leases made between Lessee and any third parties. The Lessor also grants to the Lessee the right to substitute equipment of equal or greater value when returning Lessor's property at the expiration of the lease, in order to avoid unnecessary installation or removal expenses.

The systems sold by A.T. Bliss to petitioners required additional parts not included in the package, such as a storage tank, miscellaneous piping, fitting, insulation, and other small devices, in order to be operational. Coordinated purchased and retained ownership of the storage tanks. The cost to obtain the additional components, as well as the cost of installation, was borne by the homeowner to whom the system was subleased.

In order to induce Coordinated to accept leases from the purchasers of solar water heating systems, A.T. Bliss paid Coordinated a promotional allowance of \$200 for each system leased. On April 30, 1980, the amount of the promotional allowance was increased to \$400 per system; on July 1, 1980, the allowance was further increased to \$500 per system. A.T. Bliss lacked sufficient cash to make these promotional allowances; the source of funds for the allowances came from the purchasers' downpayments.

By the end of 1979, Coordinated had not subleased or installed any of the systems which it had leased from petitioners. By the end of 1980, approximately 20 percent of the systems leased by Coordinated in 1979 had been installed. The systems leased by Coordinated in 1980 were subleased sometime during 1981 or 1982.

Petitioners were responsible for the repair and maintenance of the leased systems. They therefore entered into prearranged maintenance agreements with Alternative Energy Maintenance, Inc. (Alternative), a Florida corporation, whose principal place of business was in the same building as that of A.T. Bliss and Coordinated. The president of Alternative was Victor Perella; James Sharon, who was treasurer and a director of Coordinated, was also the secretary-treasurer and a director of Alternative.

Petitioners paid Alternative an initial fee of \$300 and a monthly fee of 75 cents per system (in the 1979 agreements) or \$1.25 per system (in the 1980 agreements). The term of each maintenance agreement was 3 years; however, petitioners had the option of renewing the agreements for up to 4 additional years. The components of the A.T. Bliss solar water heating systems were covered by a minimum manufacturer's warranty of at least 1 year. During 1979 and 1980, there were no major maintenance difficulties with any of the solar water heating systems (as previously noted, no systems were installed until 1980). The minor maintenance services that were performed, such as the inspection of installed systems to insure that they were operational, or the lubrication of the pumps, were performed by employees of Coordinated.⁹

Finally, petitioners entered into prearranged agreements with Delta Accounting Services (Delta), pursuant to which petitioners paid Delta an initial fee of \$200 and a monthly fee of \$7.50. Delta agreed to collect the rent from Coordinated, pay the expenses incurred by petitioners in connection with their purchases from A.T. Bliss, and to remit the excess of rental income over expenses to petitioners.

Schedules from the 1979 offering circular, together with our introductory remarks, appear on pages 90-101.

The offering circulars contained no projections or forecasts of energy prices beyond the 7-year period, when petitioners' leases with Coordinated would expire.

Petitioners claimed deductions and tax credits with respect to their purchases in amounts roughly equivalent to those set forth in the offering circulars.

For the years 1979 through 1981, A.T. Bliss reported sales of the solar water heating equipment, for income tax purposes, on the installment basis. In its financial statements for such years, A.T. Bliss reported sales at the full sales price, less a reserve for doubtful collections equal to 60 percent of the notes receivable in 1979 and 50 percent of the notes receivable in 1980.

⁹At an unknown time, but probably in 1980, employees of Nationwide performed the maintenance work, and Alternative remitted to Nationwide \$1 out of the \$1.25-per-system monthly maintenance fee paid by petitioners to Alternative. The amount of the monthly fee retained by Alternative was paid to James Sharon. To avoid confusion, we will refer to Alternative as the corporation.

The 1979 offering circular prepared by A. T. Bliss contained a schedule which showed the anticipated cash-flow, considering tax savings, ensuing from the purchase of a full lot program as follows:

	1979 (1 month)	1980	1981	1982	1983	1984	1985	1986 (11 months)	Total for 7 years
DISBURSEMENTS:									
Downpayment	\$10,000	\$10,000							\$20,000
Note payment	479	5,756	\$5,756	\$5,756	\$5,756	\$5,756	\$5,756	\$5,277	40,292
Repair and maintenance	320	243	243	243	243	243	243	223	2,001
Legal and accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	<u>11,006</u>	<u>16,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>5,583</u>	<u>63,123</u>
RECEIPTS:									
Investment tax credit	20,000								20,000
Lease income	520	6,237	6,237	6,237	6,237	6,237	6,237	5,717	43,659
Income tax savings (at 50% tax bracket)	3,803	2,526	2,289	2,064	1,850	1,646	1,452	1,160	16,790
NET CASH SAVINGS	<u>13,317</u>	<u>(7,326)</u>	<u>2,437</u>	<u>2,212</u>	<u>1,998</u>	<u>1,794</u>	<u>1,600</u>	<u>1,294</u>	<u>17,326</u>
3% TAX-FREE INTEREST EARNED ON SAVINGS									
	---	1,065	564	805	1,046	1,289	1,536	1,638	7,943
CASH BALANCE, END OF YEAR									
	<u>13,317</u>	<u>7,056</u>	<u>10,057</u>	<u>13,074</u>	<u>16,118</u>	<u>19,201</u>	<u>22,337</u>	<u>25,269</u>	<u>25,269</u>

The anticipated tax benefits available from the purchase under the 1979 program of a full lot were described in the offering circular as follows:¹⁰

	1979 (1 month)	1980	1981	1982	1983	1984	1985	1986 (11 months)	Total for 7 years
DEPRECIATION:									
30 Years DDB, \$96,000	\$3,200	\$6,187	\$5,774	\$5,389	\$5,030	\$4,695	\$4,382	\$3,749	\$38,406
Additional first year	4,000								4,000
Repairs and maintenance	320	243	243	243	243	243	243	223	2,001
Interest	400	4,768	4,708	4,643	4,574	4,501	4,425	3,983	32,002
Legal and accounting	207	90	90	90	90	90	90	83	830
Investment tax credit converted to write-off \$ at ratio of 2 to 1	40,000								40,000
TOTAL WRITE-OFF	<u>48,127</u>	<u>11,288</u>	<u>10,816</u>	<u>10,365</u>	<u>9,937</u>	<u>9,529</u>	<u>9,140</u>	<u>8,035</u>	<u>117,239</u>
LEASE INCOME									
(\$19.25 per month)	520	6,237	6,237	6,237	6,237	6,237	6,237	5,717	43,659
NET WRITE-OFF	<u>47,607</u>	<u>5,051</u>	<u>4,578</u>	<u>4,128</u>	<u>3,700</u>	<u>3,292</u>	<u>2,903</u>	<u>2,321</u>	<u>73,580</u>
DOWNPAYMENT									
	<u>10,000</u>	<u>10,000</u>							<u>20,000</u>
WF OFF RATIO	<u>4.8 to 1</u>								<u>3.7 to 1</u>

¹⁰No figures were provided to illustrate the cash-flow or tax benefits from purchasing a half lot in 1979.

The anticipated cash-flow, considering tax savings, ensuing from the purchase of a full lot under the second half 1980 program was as follows:

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
DISBURSEMENTS:									
Downpayment	\$15,000	\$10,000							\$25,000
Note payment	469	5,625	\$5,625	\$5,625	\$5,625	\$5,625	\$5,625	\$5,156	39,375
Repair and maintenance	334	405	405	405	405	405	405	371	3,135
Accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	<u>16,010</u>	<u>16,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>5,610</u>	<u>68,340</u>
RECEIPTS:									
Investment tax credit	25,000								25,000
Lease income	520	6,237	6,237	6,237	6,237	6,237	6,237	5,717	43,659
Income tax savings (at 50% tax bracket)	5,445	5,914	5,117	4,427	3,829	3,311	2,862	2,267	33,172
Total receipts	<u>30,965</u>	<u>12,151</u>	<u>11,354</u>	<u>10,664</u>	<u>10,066</u>	<u>9,548</u>	<u>9,099</u>	<u>7,984</u>	<u>101,831</u>
NET CASH SAVINGS	<u>14,955</u>	<u>(3,969)</u>	<u>5,234</u>	<u>4,544</u>	<u>3,946</u>	<u>3,428</u>	<u>2,979</u>	<u>2,374</u>	<u>33,491</u>
8% TAX-FREE INTEREST EARNED ON SAVINGS	---	1,196	975	1,471	1,952	2,424	2,892	3,362	14,272
CASH BALANCE, END OF YEAR	<u>14,955</u>	<u>12,182</u>	<u>18,391</u>	<u>24,406</u>	<u>30,304</u>	<u>36,156</u>	<u>42,027</u>	<u>47,763</u>	<u>47,763</u>

The anticipated tax benefits available from the purchase of a full lot under that same program were as follows:

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
DEPRECIATION:									
15 Years DDB, \$96,000	\$6,400	\$11,944	\$10,352	\$8,971	\$7,776	\$6,739	\$5,841	\$4,640	\$62,663
Additional first year	4,000								4,000
Repairs and maintenance	334	405	405	405	405	405	405	371	3,135
Interest	469	5,625	5,625	5,625	5,625	5,625	5,625	5,156	39,375
Accounting	207	90	90	90	90	90	90	83	830
Investment tax credit converted to write-off \$ at ratio of 2 to 1	50,000								50,000
TOTAL WRITE-OFF \$	<u>61,410</u>	<u>18,064</u>	<u>16,472</u>	<u>15,091</u>	<u>13,896</u>	<u>12,859</u>	<u>11,961</u>	<u>10,250</u>	<u>160,003</u>
LEASE INCOME (\$19.25 per month)	520	6,237	6,237	6,237	6,237	6,237	6,237	5,717	43,659
WRITE-OFF	<u>60,890</u>	<u>11,827</u>	<u>10,235</u>	<u>8,854</u>	<u>7,659</u>	<u>6,622</u>	<u>5,724</u>	<u>4,533</u>	<u>116,344</u>
DOWNPAYMENT	<u>15,000</u>	<u>10,000</u>							<u>25,000</u>
WRITE-OFF RATIO	4.1 to 1								4.7 to 1

The anticipated cash-flow, considering tax savings, ensuing from the purchase of a half lot under the second half 1980 program was as follows:

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
DISBURSEMENTS:									
Downpayment	\$8,000	\$6,000							\$14,000
Note payment	225	2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,475	18,900
Repair and maintenance	316	195	195	195	195	195	195	179	1,665
Accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	8,748	8,985	2,985	2,985	2,985	2,985	2,985	2,737	35,395
RECEIPTS:									
Investment tax credit	12,500								12,500
Lease income	250	3,003	3,003	3,003	3,003	3,003	3,003	2,753	21,021
Income tax savings at 50% tax bracket)	3,782	2,852	2,471	2,141	1,854	1,606	1,390	1,014	17,200
Total receipts	16,532	5,855	5,474	5,144	4,857	4,609	4,393	3,857	50,721
NET CASH SAVINGS	7,784	(3,130)	2,489	2,159	1,872	1,624	1,408	1,120	15,326
8% TAX-FREE INTEREST EARNED ON SAVINGS	---	623	422	655	880	1,100	1,318	1,536	6,534
CASH BALANCE, END OF YEAR	7,784	5,277	8,188	11,002	13,754	16,478	19,204	21,860	21,860

88 UNIFIED STATES TAX COURT REPORTS (84)

The anticipated tax benefits available from the purchase of a half lot under that same program were:

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
DEPRECIATION:									
15 Years DDB, \$46,000	\$3,066	\$5,723	\$4,960	\$4,300	\$3,726	\$3,229	\$2,799	\$2,224	\$30,027
Additional first year	4,000								4,000
Repairs and maintenance	316	195	195	195	195	195	195	179	1,665
Interest	225	2,700	2,700	2,700	2,700	2,700	2,700	2,475	18,900
Accounting	207	90	90	90	90	90	90	83	830
Investment tax credit converted to write-off \$ at ratio of 2 to 1	25,000								25,000
TOTAL WRITE-OFF	32,814	8,708	7,945	7,285	6,711	6,214	6,784	4,961	80,422
LEASE INCOME (\$19.25 per month)	250	3,003	3,003	3,003	3,003	3,003	3,003	2,753	21,021
NET WRITE-OFF	32,564	5,705	4,942	4,282	3,708	3,211	2,781	2,208	59,401
DOWNPAYMENT:	8,000	6,000							14,000
WRITE-OFF RATIO:	4.1 to 1								4.2 to 1

COOPER V. COMMISSIONER 97

The anticipated cash-flow under the 1979 and 1980 (first and second half) programs, without taking tax benefits into account, was as follows:

1979 Program—full lot

	1979 (1 month)	1980	1981	1982	1983	1984	1985	1986 (11 months)	Total for 7 years
RECEIPTS:									
Lease income	\$520	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$5,717	\$43,659
DISBURSEMENTS:									
Downpayment	10,000	10,000							20,000
Note payment	479	5,756	5,756	5,756	5,756	5,756	5,756	5,277	40,292
Repair and maintenance	320	243	243	243	243	243	243	223	2,001
Legal and accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	<u>11,006</u>	<u>16,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>6,089</u>	<u>5,583</u>	<u>63,123</u>
CASH OUT OF POCKET BEFORE TAX ATTRIBUTES	<u>(10,486)</u>	<u>(9,852)</u>	<u>148</u>	<u>148</u>	<u>148</u>	<u>148</u>	<u>148</u>	<u>134</u>	<u>(19,464)</u>

1980 (first half) Program—full lot

	1980 (6 months)	1981	1982	1983	1984	1985	1986	1987 (6 months)	Total for 7 years
RECEIPTS:									
Lease income	\$3,118	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$3,119	\$43,659
DISBURSEMENTS:									
Downpayment	15,000	10,000							25,000
Note payment	2,812	5,625	5,625	5,625	5,625	5,625	5,625	2,813	39,375
Repair and maintenance	502	405	405	405	405	405	405	202	3,134
Accounting	245	90	90	90	90	90	90	45	830
TOTAL DISBURSEMENTS	<u>18,559</u>	<u>16,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>3,060</u>	<u>68,339</u>
CASH OUT OF POCKET BEFORE TAX ATTRIBUTES	<u>(16,441)</u>	<u>(9,883)</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>59</u>	<u>(24,680)</u>

1980 (second half) Program—full lot

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
RECEIPTS:									
Lease income	\$520	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$5,717	\$43,659
DISBURSEMENTS:									
Downpayment	15,000	10,000							25,000
Note payment	469	5,625	5,625	5,625	5,625	5,625	5,625	5,625	39,375
Repairs and maintenance	334	405	405	405	405	405	405	371	3,135
Legal and accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	<u>16,010</u>	<u>16,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,079</u>	<u>68,340</u>
CASH OUT OF POCKET BEFORE TAX ATTRIBUTES	<u>(15,490)</u>	<u>(9,883)</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>(362)</u>	<u>(24,681)</u>

1980 (second half) Program—half lot

	1980 (1 month)	1981	1982	1983	1984	1985	1986	1987 (11 months)	Total for 7 years
RECEIPTS:									
Lease income	\$520	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$6,237	\$5,717	\$43,659
DISBURSEMENTS:									
Downpayment	15,000	10,000							25,000
Note payment	469	5,625	5,625	5,625	5,625	5,625	5,625	5,625	39,375
Repairs and maintenance	334	405	405	405	405	405	405	371	3,135
Accounting	207	90	90	90	90	90	90	83	830
TOTAL DISBURSEMENTS	<u>16,010</u>	<u>16,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,120</u>	<u>6,079</u>	<u>68,340</u>
CASH OUT OF POCKET BEFORE TAX ATTRIBUTES	<u>(15,490)</u>	<u>(9,883)</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>117</u>	<u>(362)</u>	<u>(24,681)</u>

In 1984, the Securities and Exchange Commission (the SEC) filed a complaint against A.T. Bliss and its auditors for filing materially false and misleading financial statements. Without admitting or denying the allegations in the complaint, the defendants consented to the entry of a final judgment, pursuant to which they were enjoined from further violations of sections 5(a), 5(c), and 17(a) of the Securities Act of 1933 and from violations of section 13(a) of the Securities Exchange Act of 1934, and rules 13a-1 and 13a-13 thereunder. In addition, A.T. Bliss agreed to retain new auditors to reaudit and restate its 1979, 1980, and 1981 sales in its financial statements using the cost recovery method.

Among the allegations made by the SEC was that A.T. Bliss had violated the anti-fraud provisions of the Securities Act of 1933 by failing to disclose to purchasers in 1979 through 1981 that the solar panels sold in prior years had not yet been installed. The complaint also alleged that A.T. Bliss failed to disclose to purchasers that due to Coordinated's poor installation record, there was a lack of any material cash-flow from homeowners to Coordinated.

Respondent disallowed the deductions and credits claimed by petitioners in connection with the purchase of their systems, asserting numerous alternative positions. First, according to respondent, petitioners' transactions with A.T. Bliss were a series of shams which should be disregarded for tax purposes. Even if the transactions were not completely illusory, alleges respondent, the burdens and benefits of ownership of the systems never passed to petitioners, and they acquired merely an option to purchase the systems after 7 years. During that time, claims respondent, petitioners participated in a financing arrangement with Coordinated which was thinly disguised as a sale-leaseback transaction. Even if petitioners acquired an ownership interest in the systems, asserts respondent, their claimed deductions are not allowable because they did not engage in their transactions in order to make a profit. Furthermore, respondent maintains that petitioners' notes to A.T. Bliss did not represent bona fide indebtedness; therefore, respondent claims, the notes should not be taken into account in determining petitioners' bases for the solar water heating

systems. In any event, contends respondent, petitioners did not meet the statutory requirements for entitlement to the claimed investment tax and business energy credits.

Respondent also seeks (1) imposition of an increased rate of interest pursuant to section 6621(d)¹¹ with respect to all petitioners, and (2) additions to tax with respect to North American for its alleged fraudulent underpayments.

OPINION

It is well settled that taxpayers are free to structure their transactions so as to decrease or eliminate their taxes by any means which the law permits. *Gregory v. Helvering*, 293 U.S. 465 (1935); *Gordon v. Commissioner*, 85 T.C. 309 (1985). However, the desired tax benefits will not be allowed if the transaction is illusory. Thus, where taxpayers resort to "the expedient of drawing up papers to characterize transactions contrary to objective economic realities and which have no economic significance beyond expected tax benefits," we have denied the claimed tax benefits on the basis that the transactions were shams. *Falsetti v. Commissioner*, 85 T.C. 332 (1985); *Brown v. Commissioner*, 85 T.C. 968 (1985).

In arguing that the multiple transactions involved herein were a series of shams, respondent first contends that in reality petitioners entered into a sale-leaseback transaction with A.T. Bliss (i.e., a two-party transaction). In order for us to accept respondent's characterization of the transaction as a two-party sale-leaseback, we would have to disregard the existence of Coordinated as a separate corporate entity. This we shall not do. See *Moline Properties, Inc. v. Commissioner*, 319 U.S. 436 (1943).

Petitioners purchased the equipment from one party (A.T. Bliss) and leased it to another (Coordinated). Coordinated had an identity separate from A.T. Bliss. It held the systems out for sublease to homeowners, arranged for installation of the systems on homes, and otherwise engaged in business activities separate and apart from those

¹¹Unless otherwise noted, all section references are to sections of the Internal Revenue Code of 1954 in effect for the years in question. All Rule references are to the Tax Court Rules of Practice and Procedure.

of A.T. Bliss. Thus, we find that the transactions involved herein were genuine multiple party transactions.¹²

We now turn to whether a bona fide sale of equipment from A.T. Bliss to petitioners occurred. To determine whether there was an actual sale of solar heating equipment from A.T. Bliss to petitioners, we must ascertain, from all the attendant facts and circumstances, the intent of the parties. *Haggard v. Commissioner*, 24 T.C. 1124 (1955), affd. per curiam 241 F.2d 288 (9th Cir. 1956). In *Grodt & McKay Realty, Inc. v. Commissioner*, 77 T.C. 1221 (1981), we considered the following factors in determining whether a bona fide sale occurred:

- (1) whether legal title passed;
- (2) how the parties treated the transaction;
- (3) whether an equity in the property was acquired;
- (4) whether the contract created a present obligation on the seller to execute and deliver a deed as well as a present obligation on the purchaser to make payments;
- (5) whether the right of possession was vested in the purchaser;
- (6) which party paid the property taxes;
- (7) which party bore the risk of loss or damage to the property; and
- (8) which party received the profits from the operation and sale of the property.

Pivotal to such a determination is whether the burdens and benefits of ownership passed to the putative purchaser.

In *Grodt & McKay Realty v. Commissioner*, *supra*, the taxpayers entered into a transaction in which they purported to purchase cattle. The seller, although obligated to register the cattle in the taxpayers' names, retained title in its own name; it also retained possession and control of the cattle. *Falsetti v. Commissioner*, 85 T.C. 332 (1985), involved a purported sale of an apartment complex, although legal title to the property never passed to the "purchaser" and the parties treated the transaction in a manner inconsistent with the notion that a sale occurred. In both

¹²We also believe that the transactions between petitioners and Alternative (with respect to providing repairs and maintenance to the systems) and Delta (with respect to providing accounting services) were genuine. 13 See also Simonson, "Determining Tax Ownership of Leased Property," 38 Tax Law. 1 (1984).

cases, we held that the purported sales were not bona fide, and we refused to recognize them for tax purposes.

Here, we find that there were bona fide sales of equipment from A.T. Bliss to each petitioner. Legal title of the solar water heating equipment passed from A.T. Bliss to petitioners. All of the profits produced from the rental of the systems were received (at least constructively) by petitioners, and they bore the burden of maintaining the system. A.T. Bliss neither used the equipment nor retained physical possession of it. The parties treated the transaction as a sale, and we believe that such in reality occurred. At the end of the lease with Coordinated, petitioners were free to use or dispose of the equipment as they wished. Nothing in the record suggests that petitioners' transactions with A.T. Bliss and Coordinated were other than at arm's length.

As will be discussed in detail *infra*, petitioners purchased a package of which the equipment was but a part; thus only a part of the amount paid by petitioners to A.T. Bliss was for the equipment. However, the fact that the entire amount of petitioners' payments was designated to be for the equipment does not invalidate the transaction as a sale.

Notwithstanding our finding that the sale to North American (as well as the sales to the other petitioners) was bona fide, we find that the sale to North American did not occur prior to the end of its 1979 fiscal year. A.T. Bliss did not purchase the solar collector panels until after North American's 1979 fiscal year had ended; accordingly, North American could not have acquired its systems from A.T. Bliss during its 1979 fiscal year. Thus, North American is not entitled to its claimed deductions and tax credits in its 1979 fiscal year, because this finding is dispositive of the issues pertaining to North American's transaction with A.T. Bliss, our use of "petitioners" hereinafter will not include North American.

Respondent next contends that petitioners so divested themselves of the incidents of ownership in the systems through their leases with Coordinated, that in reality the systems were owned by Coordinated. Petitioners contend otherwise, i.e., the contracts with Coordinated created a valid lessor-lessee relationship. Our determination as to whether the leases should be recharacterized as sales

requires an inquiry into all of the facts and circumstances involved herein. *Frank Lyon Co. v. United States*, 435 U.S. 561 (1978). Some of the considerations relevant to this inquiry are: whether the lessor expected to own an asset with a meaningful residual value at the expiration of the lease term (*Rice's Toyota World, Inc. v. Commissioner*, 81 T.C. 184 (1983), affd. in part 752 F.2d 89 (4th Cir. 1985); *Hilton v. Commissioner*, 74 T.C. 305 (1980), affd. per curiam 671 F.2d 316 (9th Cir. 1982), cert. denied 459 U.S. 907 (1982)); whether the lessor had an equity interest in the leased property (*Estate of Franklin v. Commissioner*, 64 T.C. 752 (1975), affd. 544 F.2d 1045 (9th Cir. 1976); *Narver v. Commissioner*, 75 T.C. 53 (1980), affd. 670 F.2d 855 (9th Cir. 1982)); and whether the lessor retained any risk of economic loss with respect to the property or any potential for economic gain. *Northwest Acceptance Corp. v. Commissioner*, 58 T.C. 836 (1972), affd. per curiam 500 F.2d 1222 (9th Cir. 1974); *Lockhart Leasing Co. v. Commissioner*, 54 T.C. 301 (1970), affd. sub nom. *Lockhart Leasing Co. v. United States*, 446 F.2d 269 (10th Cir. 1971).¹³

We have also recognized that some considerations have minimal significance. These include the existence of tax benefits accruing to the lessor, the absence of significant positive net cash-flow during the lease term, rental payments geared to the cost of interest and mortgage amortization, and the existence of nonrecourse financing. *Estate of Thomas v. Commissioner*, 84 T.C. 412 (1985).

The fact that a lease is part of a package put together by an orchestrator is not fatal to a finding that a lease existed, provided petitioners acquired substantial nontax interests. *Hilton v. Commissioner*, 74 T.C. 305 (1980), affd. per curiam 671 F.2d 316 (9th Cir. 1982), cert. denied 459 U.S. 907 (1982). After a careful review of the entire record, we find that a valid lessor-lessee relationship existed between petitioners and Coordinated.

The documents associated with the leases did not confer upon Coordinated any right greater than that of a lessee. Petitioners could, upon the expiration of their leases with Coordinated, lease their equipment directly to homeowners

or use it in any way they desired. At the inception of the transaction, petitioners expected the price of energy to escalate, and they anticipated receiving rentals which would increase in proportion to the increase in energy costs. We believe that at all relevant times, they intended to retain the right to exploit the equipment by buying it on a leveraged basis at 1979 or 1980 prices and to later receive increased rentals reflecting escalating energy prices.

We have considered petitioners' put options pursuant to which Coordinated could be compelled to purchase the equipment at the end of the lease term. Such an option is not fatal to a finding that a lease existed, even in cases where the lessee has a concurrent option to purchase the property. *Northwest Acceptance Corp. v. Commissioner*, 58 T.C. 836 (1972), affd. per curiam 500 F.2d 1222 (9th Cir. 1974); *Lockhart Leasing Co. v. Commissioner*, 54 T.C. 301 (1970), affd. sub nom. *Lockhart Leasing Co. v. United States*, 446 F.2d 269 (10th Cir. 1971). Here, we view the put option as an additional benefit given to petitioners, not the relinquishment by them of the burdens and benefits of ownership. It was not a foregone conclusion, as respondent suggests, that petitioners would exercise their put options. While the put option affects the availability of petitioners' deductions under the at-risk rules of section 465, discussed *infra*, it does not affect the validity of the lease agreements.

We have also considered Coordinated's right to substitute, at the end of the lease term, other equipment of equal or greater value for petitioners' equipment. Arguably, such a right could deprive petitioners of the opportunity to benefit from any appreciation of the solar heating equipment, as was the situation in *Sun Oil Co. v. Commissioner*, 562 F.2d 258 (3d Cir. 1977), cert. denied 436 U.S. 944 (1978), revg. a Memorandum Opinion of this Court.

The situation involved herein differs from *Sun Oil* in several respects. Coordinated, the lessee, was not the ultimate user of the property. The degree of control which Coordinated could exercise over the leased property was considerably less than that retained by the lessee in *Sun Oil*. The value of any equipment substituted by Coordinated had to equal or exceed the fair market value of petitioners' equipment, in contrast to the *Sun Oil* lease, in which the

¹³ See also Simons, "Determining Tax Ownership of Leased Property," 38 Tax Law. 1 (1984).

value of any substituted equipment was a function of the seller-lessee's cost basis in the leased property. Unlike the lessor in *Sun Oil*, petitioners (rather than Coordinated) benefited from any appreciation in the value of the equipment. Further, petitioners' rights to lease the systems directly to homeowners upon the expiration of their leases with Coordinated could not be defeated by Coordinated's right of substitution. Thus, we believe the provision giving Coordinated the right of substitution serves a valid commercial purpose consistent with petitioners' ownership of the equipment.

Respondent next contends that even if the transactions involved herein had economic substance, petitioners did not enter into the transactions with a bona fide intent to make a profit, and therefore were not engaged in any trade or business for which deductible expenses could be claimed.

The law is well settled that to constitute the carrying on of a trade or business, the activity must be engaged in with an "actual and honest objective of making a profit." *Dreicer v. Commissioner*, 78 T.C. 642 (1982), affd. without opinion 702 F.2d 1205 (D.C. Cir. 1983); *Capek v. Commissioner*, 86 T.C. 14 (1986); *Fuchs v. Commissioner*, 83 T.C. 79 (1984); *Dean v. Commissioner*, 83 T.C. 56 (1984). A profit objective is also necessary in order to deduct expenses under section 212(l) or (2). *Lemmen v. Commissioner*, 77 T.C. 1326 (1981); *Jasionowski v. Commissioner*, 66 T.C. 312 (1976).

Although a reasonable expectation of profit is not required, the activity must "be entered into, in good faith, with the dominant hope and intent of realizing a profit, i.e., taxable income, therefrom." *Hirsch v. Commissioner*, 315 F.2d 731, 736 (9th Cir. 1963), affg. a Memorandum Opinion of this Court; *Brannen v. Commissioner*, 78 T.C. 471 (1982), affd. 722 F.2d 695 (11th Cir. 1984). Thus, "profit" in this context means economic profit, independent of tax savings. *Beck v. Commissioner*, 85 T.C. 557 (1985); *Herrick v. Commissioner*, 85 T.C. 237 (1985); *Surloff v. Commissioner*, 81 T.C. 210 (1983).

The issue of whether the requisite profit objective exists is one of fact to be resolved on the basis of all the evidence in the case. *Sutton v. Commissioner*, 84 T.C. 210 (1985); *Brannen v. Commissioner*, 78 T.C. at 506; *Dunn v. Commis-*

sioner, 70 T.C. 715 (1978), affd. 615 F.2d 578 (2d Cir. 1980). In making this determination, more weight must be given to the objective facts than to the taxpayer's mere after-the-fact statements of intent. *Thomas v. Commissioner*, 84 T.C. 1244 (1985), affd. 792 F.2d 1256 (4th Cir. 1986); *Engdahl v. Commissioner*, 72 T.C. 659 (1979). Petitioners bear the burden of proving that they possessed the required profit objective. Rule 142(a); *Welch v. Helvering*, 290 U.S. 111 (1933).

Section 1.183-2(b), Income Tax Regs., enumerates the following nonexclusive list of factors to be considered in determining whether an activity is engaged in for profit: (1) The manner in which the taxpayer carries on the activity; (2) the expertise of the taxpayer or his advisors; (3) the time and effort expended by the taxpayer in carrying on the activity; (4) the expectation that assets used in the activity may appreciate in value; (5) the success of the taxpayer in carrying on other similar or dissimilar activities; (6) the taxpayer's history of income or losses with respect to the activity; (7) the amount of occasional profits, if any, which are earned; (8) the financial status of the taxpayer; and (9) any elements indicating personal pleasure or recreation. No one factor is conclusive; the importance of each factor must be evaluated in the context of the particular case. *Dunn v. Commissioner*, 70 T.C. at 720.

After considering the foregoing factors, we believe that petitioners entered into their leasing activities with a bona fide objective to make a profit. Petitioners carried on their leasing activities in a businesslike manner, as evidenced by the various agreements with Coordinated, Alternative, and Delta. While petitioners had no expertise in this area, and devoted little time to their leasing activities, they immediately arranged for others having expertise to perform the necessary services. Once the equipment was leased to Coordinated, nothing further remained for petitioners to undertake, at least for the ensuing 7 years. For the first 7 years, petitioners were guaranteed a rental income in excess of expenses. We find credible petitioners' assertions that they believed energy prices would increase to the point that when their leases with Coordinated expired, they would be able to exploit such higher energy prices and lease their

solar water heating equipment for a substantially greater rental.

As projected in the offering circulars, petitioners realized a small but steady profit in every year, except during the first 13 or 18 months. Coordinated's efforts to install the systems on homes were vigorous, and ultimately successful. Thus, the biggest impediment to petitioners' obtaining a profit—locating a homeowner for the equipment—was removed by the time petitioners' leases with Coordinated expired. We also find logical petitioners' belief that once the systems were installed, they would remain on the roofs of the homeowners indefinitely.

As previously stated, petitioners received more than solar water heating equipment—they received a package which consisted of equipment, the attendant tax benefits of acquiring such equipment, contract rights, and a potential stream of income. Thus, only a part of the purchase price was fairly allocable to the equipment; after carefully considering the entire record, we believe that the amount fairly allocable to the equipment should be \$1,000 per system, which we believe is its fair market value.¹⁴

Although petitioners may have overreached in allocating the entire purchase price to the equipment in an attempt to maximize their tax benefits, such overreaching does not preclude a finding that petitioners had bona fide profit objectives independent of tax considerations. The transactions herein do not involve inflated purchase prices attributable to contingent nonrecourse notes, as was the situation in several cases wherein we found that no profit objective existed. Nor are we confronted with a situation in which a taxpayer has available to him appraisals or income projections for the equipment's entire useful life which reveal a

¹⁴In determining the fair market value of the equipment to be \$1,000 per system, we had considered the testimony of both respondent's expert, Stanley Kolodkin, and petitioners' expert, Robert Hartleb. We have also considered the quantity of systems purchased (i.e., 27 systems for full lot investors and 13 systems for half lot investors).

Mr. Kolodkin stated in his written report that the list price for the equipment was between \$789.90 and \$811.20 per system. He testified that the "trade price for all the hardware was about \$1,000 (per system)." Mr. Hartleb testified that if truckloads of systems were purchased, they could be purchased for approximately \$789; he did not testify as to the fair market value of the equipment based on the quantity of systems purchased by petitioners. We have adopted Mr. Kolodkin's value of \$1,000 per system.

The record is silent as to whether any part of the purchase price should be allocated to a deductible expense on an asset (other than the equipment) for which a deduction for depreciation or amortization would be allowable. Nor did petitioners raise this issue.

large disparity between expected pre-tax profits and tax benefits. See, e.g., *Estate of Baron v. Commissioner*, 83 T.C. 542 (1984), affd. 798 F.2d 65 (2d Cir. 1986). We therefore disagree with respondent's characterization of these transactions as "abusive tax shelters that masqueraded as bona fide transactions."

Respondent next asserts that the notes executed by petitioners in exchange for the solar water heating equipment were not valid indebtedness and therefore could not give rise to valid interest deductions. We disagree.

We agree with respondent that the amount of the notes exceeds the fair market value of the equipment, which we have found to be \$1,000 per system. However, such a determination does not mean that petitioners overpaid A.T. Bliss for what they received or that the notes were not bona fide. Rather, petitioners purchased a package consisting of equipment, valuable contract rights, and a potential stream of income from A.T. Bliss for between \$3,704 to \$3,846 per system—we believe that this package was worth all that petitioners paid for it.

We also observe that the notes did not require that payment be made only out of the rental income. In this sense, the notes were not contingent. We believe the parties intended the notes to be what they purported—bona fide debt. Hence, we hold that the notes were bona fide and the interest payments thereunder are deductible.

Notwithstanding our finding that the notes are bona fide, the entire amount of the notes cannot be used in calculating depreciation, the investment tax credit, or the energy tax credit for the equipment. The starting point in calculating the amount of depreciation and the tax credits with respect to the equipment is petitioners' bases in the equipment. Basis for purchased equipment is the amount paid for the equipment, not what is paid for something else (in this case, contract rights). *Waddell v. Commissioner*, 86 T.C. 848 (1986); *Lemmen v. Commissioner*, 77 T.C. 1326 (1981). We have already determined that the fair market value of the solar heating equipment is \$1,000 for each system, and petitioners' bases (for purposes of depreciation and the tax credits) are limited to that amount.

The next issue is whether the at-risk rules of section 465 limit petitioners' allowable deductions. Generally, in a leasing activity, noncorporate taxpayers are at risk to the extent of their cash investments in the activity, together with amounts borrowed with respect to such activities if they are personally liable for repayment of those liabilities.¹⁵ Nonrecourse notes do not constitute amounts at risk; therefore, petitioners Cooper, Duncan, Jenny, and Brill, who executed nonrecourse notes, were at risk only to the extent of their cash investments.¹⁶

Arnone did not present his promissory note for his 1980 purchase; we assume that it was nonrecourse. *Wichita Terminal Elevator Co. v. Commissioner*, 6 T.C. 1158 (1946), affd. 162 F.2d 513 (10th Cir. 1947).¹⁷ Thus, he was at risk only to the extent of his cash investment for his 1980 purchase.

With respect to those petitioners who executed recourse notes (McAndrews, Arnone, for his 1979 purchase, and Dash), respondent contends that section 465(b)(4) applies, because petitioners were protected against loss through a "guarantee, stop loss agreement or other similar arrangement," in the form of put options. We agree with respondent. These petitioners, through their put options, were protected from economic loss from the inception of their transactions. The put options guaranteed petitioners that at the end of 7 years they could sell the systems to Coordinated for an amount equal to the outstanding balance on their notes to A.T. Bliss. The \$75,000 notes of petitioners Dash and McAndrews required no principal payments for the first 7 years; thus, considering that they could receive \$75,000 from Coordinated if the systems were put to

¹⁵Respondent argues on brief that the at-risk rules apply to Nationwide under sec. 465(a)(1)(C). As this theory constitutes new matter, respondent had the burden of proof (Rule 142(a)), which he has not carried.

¹⁶Respondent argues that the deferred portions of petitioners' downpayments to A.T. Bliss were not amounts at risk because, claims respondent, A.T. Bliss had an interest (other than as a creditor) in petitioners' leasing activities. See sec. 465(b)(3). Curiously, respondent did not advance such an argument with respect to the petitioners' long-term notes to A.T. Bliss. In order for us to accept respondent's argument, we would have to find that A.T. Bliss had either a capital interest or an interest in the net profits of petitioners' leasing activities. See sec. 1.465-8(b), Proposed Income Tax Regs., 44 Fed. Reg. 32235 (June 5, 1979). The record does not support such a finding.

¹⁷Petitioners Brill and Arnone made cash investments in excess of the fair market value of the systems they purchased in 1980. Their deductions are, as previously discussed, limited by

Coordinated (and Coordinated's performance was guaranteed by A.T. Bliss), these petitioners were fully protected against economic risk. Therefore, their obligations under the notes may not be added to their amounts at risk. However, petitioner Arnone, with respect to his investment in the 1979 program, was required to make principal payments on his \$40,000 long-term note during the first 7 years; he in fact made the required payments during the years in issue. The amount he could receive if the systems were put to Coordinated was \$35,000. Thus, in addition to his own downpayment, he was at risk to the extent of \$5,000, the principal payments he was required to make.¹⁸

Petitioners believed that the systems were placed in service in the year they were sold and simultaneously leased to Coordinated. They therefore claimed depreciation, investment tax credit, and energy tax credit with respect to their systems in the years of purchase.¹⁹ The systems were in fact installed in homes subsequent to the year of purchase. Respondent disallowed the depreciation deductions and tax credits, asserting that the systems were not placed in service in the respective years for which petitioners claimed tax benefits. Petitioners, citing sections 1.167(a)-11(e)(1) and 1.46-3(d)(1)(ii), Income Tax Regs., claim that the systems were in actual use as of the date their leases with Coordinated commenced, because the systems were at that time "placed in a condition or state of readiness and availability for a specifically assigned function."

Alternatively, petitioners rely on *Clemente, Inc. v. Commissioner*, T.C. Memo. 1985-367, for the proposition that the systems were placed in service on the date of purchase because each system, "while not in actual use during the year in issue, was nevertheless devoted to the business of the taxpayer and ready for use should the occasion arise."

In *Waddell v. Commissioner*, 86 T.C. 848 (1986), we held that taxpayers who executed distribution agreements simultaneously with purchase agreements for medical equipment were entitled to depreciation and investment tax credits in the year the equipment was purchased. We decided therein

¹⁸As previously discussed, Arnone's deductions with respect to his 1979 purchase are already limited by his basis in the equipment, which was \$13,000 (13 units × \$1,000 per unit).

that property which is held for leasing to others in a profit-motivated leasing venture is placed in service when it is first held out for lease.

Petitioners herein executed their lease agreements with Coordinated simultaneously with their purchase agreements with A.T. Bliss; at that time, the systems were available for use in petitioners' profit-motivated leasing venture. We hold, therefore, that petitioners' systems were placed in service as of the date of purchase.

Respondent next argues that the individual petitioners are not entitled to the investment tax credit for the solar water heating equipment because they failed to meet the 15-percent test set forth in section 46(e)(3).²⁰ Petitioners assert that the noncorporate lessor rules of section 46(e)(3) do not affect the business energy credit.

The basis for petitioners' contention is that section 46(e)(3) applies to leased "property" which is not the same as "energy property." Petitioners point out that section 46(a)(2), which describes the amount of credit available for section 38 property, uses the term "energy property." From this usage, petitioners conclude that Congress was aware that "property" and "energy property" are not the same and that by making section 46(e)(3) applicable only to "property," Congress did not intend to include "energy property" within its ambit. We disagree.

In our opinion, section 46(e)(3) is applicable to all equipment subject to a lease, whether or not the equipment is energy property. Section 46(e)(3) was added by section 108(a) of the Revenue Act of 1971, Pub. L. 92-178, 85 Stat. 507, 1972-1 C.B. 449, and was effective with respect to leases entered into after September 22, 1971. Section 46(a)(2) was enacted in 1978.²¹ Prior to enactment of section 46(a)(2), the term "energy property," for tax purposes, did not exist. It is hardly surprising, then, that section 46(e)(3) makes no reference to "energy property." We decline to infer that Congress, when it enacted the energy tax credit

²⁰Sec. 46(e)(3) provides that a noncorporate lessor who did not manufacture or produce the leased property may claim the section 38 tax credit with respect to such property only if (a) the term of the lease (taking into account options to renew) is less than 50 percent of the useful life of the property and (b) the lessor, in the first 12 months after the property is transferred to the lessee, incurs expenses with respect to such property which are deductible under sec. 162 and which exceed 15 percent of the rental income produced by the property.

²¹Revenue Act of 1978, Pub. L. 95-508, 92 Stat. 2104, 1978-2 C.B. (Vol. 2) 20.

provisions of section 46(a)(2), intended to simultaneously exempt energy property from the requirements of section 46(e)(3). Our conclusion is supported by the fact that Congress, in the Technical Corrections Act of 1979, Pub. L. 96-222, 94 Stat. 209, 1980-1 C.B. 507, amended section 46(e)(3) to exempt qualified rehabilitated buildings from its provisions. Had Congress intended to exempt energy property from the provisions of section 46(e)(3), it likewise could have specifically so provided.

Petitioners, in order to qualify under section 46(e)(3) for either the investment tax credit or the business energy credit, therefore must show that the amount of their leasing expenses exceeded 15 percent of the amount of their rental receipts for the first 12 months after the property was transferred to Coordinated.²² Once they have met the objective criteria of section 46(e)(3), petitioners need not demonstrate that they were engaged in the trade or business of leasing or that the leases in question were part of a trade or business. *Miller v. Commissioner*, 85 T.C. 1064 (1985). Even if there were a separate trade or business test in section 46(e)(3), we would find for petitioners.

We reject respondent's contention that the expenses incurred by petitioners were not ordinary and necessary. On the contrary, we think that the maintenance and accounting expenses were of the type that are normally incurred in connection with leasing activities. Furthermore, we do not think petitioners' maintenance and accounting expenses were capital expenditures within the meaning of section 263. We see no impediment, then, to the deductibility of petitioners' maintenance and accounting expenditures under section 162²³ to the extent they were paid.

Delta, who rendered accounting services to the petitioners, in effect, acted as a clearing house for the flow of the funds. Each petitioner authorized Delta to receive rental income from Coordinated, to disburse therefrom the maintenance fee due Alternative and to retain its accounting fee.

²²Respondent does not dispute that the term of each lease was less than 50 percent of the useful life of the property. Respondent also does not dispute that the property was sec. 38 property, as defined in sec. 48(a).

²³For purposes of the 15 percent test of sec. 46(e)(3), non-se- 162 expenses such as interest, taxes, and depreciation are not taken into account. Inst- expenses are also not taken into account because even if they constituted noncapital expenditures, they were not

Petitioners received a quarterly check for the difference. Thus, it is apparent that the maintenance and accounting fees were paid. The amount of the maintenance and accounting fees exceeded 15 percent of the rental income for the first 12 months after the equipment was leased to Coordinated. Thus, each of the individual petitioners is entitled to the investment tax credit. Petitioner Nationwide is also entitled to the investment tax credit, as the requirements of section 46(e)(3) do not apply to it.

The availability of the business energy credit is also disputed by respondent on the ground that the equipment purchased by petitioners does not constitute energy property. Section 48(l)(2) defines energy property as solar or wind energy property (in addition to other types of property, none of which is present here). Solar or wind energy property, according to section 48(l)(4), means any equipment which uses solar or wind energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat. As we found, the solar water heating equipment did not constitute a working solar water heating system; various additional parts, such as a storage tank and installation components, were necessary. We reject respondent's argument, however, that the lack of a completely functional system precludes a finding that the equipment was energy property.

Relevant regulations were promulgated on January 19, 1981, but were made retroactive effective October 1, 1978. Those regulations provide that the term "solar energy property" includes equipment and materials *and parts solely related to the functioning of such equipment* that use solar energy directly to generate electricity, heat or cool a building, or provide hot water for use within a building. Sec. 1.48-9(d)(1), Income Tax Regs. Equipment specifically mentioned in the regulations includes collectors, storage tanks, rockbeds, thermostats, and heat exchangers; none of these items alone, or in combination with each other, would constitute a completely functional solar heating system. Clearly, under the regulations, petitioners' equipment would qualify as "energy property"; respondent's position that petitioners' property did not so qualify is inconsistent with his own regulation. Further, we think that the statutory

definition of a solar water property is sufficiently broad to include the component parts of a solar water heating system, and is not limited to a completely functional system as a whole. Therefore, we hold that the petitioners are entitled to the business energy credit.

Respondent has requested that we impose an increased rate of interest pursuant to section 6621(d) on all petitioners. Section 6621(d) provides that interest which accrues after December 31, 1984, on a substantial underpayment attributable to a tax-motivated transaction shall be 120 percent of the otherwise applicable rate. Section 6621(d) applies only if a tax-motivated transaction results in an underpayment in excess of \$1,000. Sec. 6621(d)(2). A "tax-motivated transaction" includes, among other things, any valuation overstatement, as defined in section 6659(c). Section 6659(c) defines a valuation overstatement as a claim on a return that the value of any property is 150 percent or more of the amount determined to be the correct value. Each petitioner claimed on his (or its) return a value for the equipment which exceeded 150 percent of the amount we have determined to be its correct value, and each petitioner's underpayment attributable thereto exceeded \$1,000, except for Arnone with respect to years 1976 and 1977. Thus, each petitioner's underpayment was attributable to a tax motivated transaction (except for Arnone with respect to years 1976 and 1977), and the increased rate of interest pursuant to section 6621(d) applies.²⁴

Respondent, in his notice of deficiency for North American, determined that an addition to tax pursuant to section 6653(b) should be imposed. Section 6653(b) provides that if any part of any underpayment is due to fraud, 50 percent of the underpayment shall be added to the tax. The burden of proving that section 6653(b) applies is on respondent. Rule 142(b). Respondent's basis for contending that section 6653(b) should apply to North American is that North American, through Edward Roy, knew that A.T. Bliss did

²⁴The underpayments of petitioners North American, Arnone, and McAndrews were also attributable to transactions other than their investments with A.T. Bliss. Respondent does not argue that sec. 6621(d) applies to the portions of the underpayments caused by such other transactions. Accordingly, the increased rate of interest pursuant to sec. 6621(d) applies only to that portion of those petitioners' underpayment which is attributable to their transactions with A.T. Bliss.

not yet own any solar heating equipment as of September 25, 1979, the date A.T. Bliss purported to sell such equipment to North American, nor as of September 30, 1979, North American's fiscal yearend.

Fraud, as used in section 6653(b), means actual intentional wrongdoing. *McGee v. Commissioner*, 61 T.C. 249, 256 (1973), affd. 519 F.2d 1121 (5th Cir. 1975). The intent required is a voluntary, intentional violation of a known legal duty; in this case, to evade a tax believed to be owing. *Stoltzfus v. United States*, 398 F.2d 1002 (3d Cir. 1968), cert. denied 393 U.S. 1020 (1969); *Estate of Temple v. Commissioner*, 67 T.C. 143 (1976). Where direct evidence of fraudulent intent is not available, its existence may be determined from the conduct of the taxpayer and the surrounding circumstances. *Stone v. Commissioner*, 56 T.C. 213 (1971). The Supreme Court has stated that an "affirmative willful attempt may be inferred from * * * any conduct, the likely effect of which would be to mislead or conceal." *Spies v. United States*, 317 U.S. 492, 499 (1943).

The record shows that A.T. Bliss contracted, at the earliest, in November of 1979 for the purchase of the necessary components comprising the systems sold to petitioners. As of September 30, 1979, A.T. Bliss did not own any such components and could not have sold them to North American before North American's 1979 fiscal yearend. We believe that Edward Roy, the president and sole shareholder of North American and the president and chairman of the board of A.T. Bliss, was aware of that fact. We also believe that Edward Roy was aware that North American was not entitled to claim tax benefits with respect to property not yet in existence, nor to carry back any "unused" portion of such tax benefits to the corporation's 1978 taxable year. Based on the entire record, we find that North American, through Edward Roy, intended to evade income taxes when it claimed tax benefits in connection with its solar heating equipment. Therefore, we sustain respondent's position that the addition to tax pursuant to section 6653(b) should be imposed on petitioner North American.

In addition to determining deficiencies arising from transactions with A.T. Bliss, respondent raised other issues as

set forth in Appendix B with respect to North American, Arnone, and McAndrews. The focus of this case was petitioners' transactions with A.T. Bliss; no evidence was adduced by either side with respect to these other issues. Petitioners North American, Arnone, and McAndrews had the burden of proving that respondent erred in his determinations with respect to these other issues. *Welch v. Helvering*, 290 U.S. 111 (1933); Rule 142(a). In the absence of any evidence or argument, we have no choice but to uphold respondent's determinations with respect to the other issues involving North American, Arnone, and McAndrews.

To reflect the foregoing,

Decisions will be entered under Rule 155.

Appendices to this opinion
follow on pages 120-121.

Petitioner	Docket No.	Tax years	Deficiency	Addition to tax ¹	Residence when petition filed
Richard G. and June A. Cooper	5317-83	1979	\$8,286.00		North Palm Beach, Florida
North American Financial Corp.	6450-83	1980	6,582.00		Pompano Beach, Florida
		9/30/78	5,926.87	\$2,963.44	
Nationwide Power Corp. (formerly Southeast Equity Mgmt., Inc.) Robert J. McAndrews	8352-83	9/30/79	57,172.00	28,586.00	Florida
		1979	10,721.00		Pompano Beach, Florida
Michael E. and Gilda Arnone	9677-83	1980	31,425.00		Grand Rapids, Michigan
		1976	782.00	39.00	Plantation, Florida
William A. and Doris Duncan	29230-83	1977	137.00	7.00	Plantation, Florida
		1979	7,570.00	379.00	
Philip and Harriet Dash	34818-83	1980	9,337.00	467.00	Plantation, Florida
		1977	7,139.00		
Bob R. and Joan M. Jenny	529-84	1978	7,729.00		Miami, Florida
		1979	2,660.00		
Jonah L. Brill	25826-84	1980	9,084.00		Pompano Beach, Florida
		1981	12,687.00		
		1978	8,328.00		Brooklyn, N.Y., New York
		1979	11,692.00		
		1980	21,522.00		
		1980	33,550.00		
		1981	4,314.00		
		1980	4,931.66		

¹Sec. 6653(b) for petitioner North American Financial Corp. and sec. 6653(a) for petitioners Michael E. and Gilda Arnone.

APPENDIX B

Re: North American Financial Corporation (North American)

(1) Whether respondent properly disallowed certain deductions for expenses claimed by North American for its fiscal years ended September 30, 1978 and 1979, as follows:

Type of expense	Amount disallowed	Fiscal year for which expenses claimed
Sales	\$7,693.50	FYE 9/30/78
	21,946.19	9/30/79
Legal and professional	7,500.00	FYE 9/30/78
	5,000.00	9/30/79
Research and development	15,100.00	FYE 9/30/79
Moving	5,000.00	FYE 9/30/79

(2) Whether North American sustained a loss in the amount of \$29,755.18 from the disposition of a Treasury Bill in its fiscal year ended September 30, 1979;

(3) Whether North American failed to report taxable income in the amount of \$3,000 for its fiscal year ended September 30, 1979.

Re: Michael E. & Gilda Arnone (Arnone)

(1) Whether Arnone could carry forward to 1979 and 1980 a claimed loss in 1975 of an investment in the stock of Gold Coin Restaurant Corporation.

(2) Whether Arnone is entitled to a deduction for rental expenses in 1980 in the amount of \$2,326;

(3) Whether Arnone failed to report income from wages in the amount of \$1,697 in 1980.

(4) Whether Arnone is subject to additions to tax pursuant to section 6653(a) for 1976, 1977, 1979, and 1980.

Re: Robert J. McAndrews

Whether petitioner McAndrews is entitled to a deduction in 1980 for tax advisory fees in the amount of \$3,000.

D R A F T

Application TC-4570

**STATE OF OREGON
Department of Environmental Quality**

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Willamette Industries, Inc.
3800 First Interstate Tower
Portland, Oregon 97201

The applicant owns and operates a pulp and paper mill that produces linerboard for old corrugated cardboard in Albany, Oregon. The applicant is also the owner of the claimed solid waste recycling facility which is leased to Far West Fibers.

Application is for a pollution control facility tax credit certification.

2. Description of Facility

The claimed facility is a wastepaper collection, processing and storage facility in Multnomah County which is owned by the applicant, Willamette Industries, Inc. and leased to an independent facility operator, Far West Fibers. The facility consists of a 50,000 square foot building and associated facilities 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.

Claimed Facility costs include:

a)	Recycling facility enclosure, 50,000 square feet	\$1,435,472
b)	Truck access area & bale storage area paving	338,272
c)	Enterprise Baler, model 16-EZRRB-200;	370,457
d)	Krause Baler Conveyor, Model KRA CONV0050; Krause Sorting Conveyor, Mode KAR CONV00554B;	197,831
e)	Michigan Wheel Loader, Serial Number L-70v61201;	79,269
f)	Two Mitsubishi 6M1b Fork Truck, # AF89A-00564 & AF83A-00529; Cascade Lift Truck Rotator, Serial Number 93721;	43,345
g)	Toledo Truck Scale, 100 ton, Serial Number 4320386-5U;	72,101
h)	Three Dewalt steel platforms; Twenty five Dewalt Steel boxes;	13,331
j)	Toledo Platform Scale, 10 ton, Serial Number 78089C; Five Cascade steel containers;	16,230
m)	DCE Dust Filter System, serial Number 931395.	14,000
n)	Installation	16,510

Total claimed facility cost \$2,596,818

An independent account's certification of costs was provided. A separate accounting firm under contract to the Department reviewed the claimed facility costs. The Department has not identified any ineligible cost associate with the claimed facility.

3. Procedural Requirements

The facility is governed by ORS 468.150 - 468.190 and by OAR Chapter 340, Division 16.

The facility met all statutory deadlines in that:

- a. Installation of the facility was stated on May 1, 1993.
- b. The facility placed in operation by the independent operator on September 27, 1993. The facility was substantially complete for the applicant on December 31, 1993 when the lease between applicant and the facility operator became effective.
- c. The application for tax credit was submitted to the Department on December 26, 1995. This date is within two years of substantial completion of the facility based on the effective date of the lease, December 31, 1993. The date of application is beyond two years of the date the independent operator started to use the facility. The applicant is the owner but not the operator of the facility and is claiming the facility as a leased recycling facility with a date substantial completion being the day on which the facility began to produce lease income.
- d. The application was found to be technically complete and was filed on April XX, 1997.

4. Evaluation of Application

- a. The sole purpose of the claimed facility is to prevent or reduce a substantial quantity of solid waste through recycling. The equipment described in the application is used to process waste paper and other recyclable material which would otherwise be disposed of as solid waste.
- b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

- 1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

This factor is applicable because the facility is used exclusively to process recyclable material. the percent allocable by using this factor is 100%.

- 2) The estimated annual percentage return on the investment in the facility.

- A) The claimed recycling facility is not integral to operation of the applicant business, as a lessor, and does not fall under the provisions of OAR 340-16-030(5). The applicant could continue to operate its paper mill and other business activities without the claimed facility. The lease payments from the claimed facility do not have a significant impact on the income of the applicant's business.

B) Actual Cost of the Claimed Facility:

The Environmental Quality Commission has directed that tax credit applications at or above \$250,000 go through an additional accounting review to determine if costs were properly allocated. This review was performed under contract by XXXXXXXXXXXXXXXX. The cost allocation review of this application has identified \$xxx,xxx of non-allowable costs. This amount has been subtracted from the facility cost.

Original Cost of the claimed Facility	\$2,596,818
Ineligible Costs	XXX,XXX
Adjusted cost of claimed facility	2,XXX,XXX

C) Useful Life

The applicant has claimed a useful life of 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.

D) Annual Percentage Return on Investment

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. This cash flow and the facility cost result in a return on investment factor of 19.09. 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 \$135,000 results in a return on investment of .25% and therefore 95% of the facility cost is properly allocable to pollution control.

3) The alternative methods, equipment, and costs for achieving the same pollution control objective.

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.

4) Any related savings or decreases in costs which occur or may occur as a result of the installation of the facility.

There are no other savings associated with this facility. Material generated from this facility is sold to the applicant or other users at fair market value.

5) Any other relevant factors

The Department has not identified any other factors to consider in establishing the portion of the actual cost of the facility properly allocable to material recovery from solid waste.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 95%.

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the sole purpose is recycling of a material that would otherwise be disposed of as solid waste.
- c. The facility complies with DEQ statutes and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility certificate bearing the cost of \$2,596,818 with 95% allocable to pollution control be issued for the facility claimed in Tax Credit Application TC-4570.

William R. Bree
TAX\TC4570RR.STA
(503) 229-6046
April 4, 1997

holdings on the transferee and deficiency issues, respondent's determinations as to the additions to tax are sustained.

To reflect the foregoing,

Decisions will be entered for the respondent.

HONEYWELL INC. AND SUBSIDIARIES, PETITIONER v.
COMMISSIONER OF INTERNAL REVENUE, RESPONDENT

Docket No. 15807-83. Filed September 22, 1986.

P manufactured, leased, and sold computers and reported depreciation under the Class Life Asset Depreciation Range system described in sec. 1.167(a)-11(d)(3), Income Tax Regs. Literally applying the regulations, P reported sales of leased computers as credits to its depreciation reserve until the appropriate vintage account balance was exceeded, thereby delaying realization of income from sales. R determined that computers held for sale and/or lease were "dual purpose property" not covered by his regulations. *Held*, P correctly reported income from sales of computers.

P's subsidiary issued debentures convertible into stock of P. *Held*:

1. P cannot amortize as original issue discount a portion of the issue price attributable to the conversion privilege.

2. P cannot amortize as bond premium the difference between the fair market value of the stock issued on conversion and the face value of the debentures. *National Can Corp. v. United States*, 687 F.2d 1107 (7th Cir. 1982), followed.

Clinton A. Schroeder, David C. Bahls, and Myron L. Frans, for the petitioner.

James F. Kidd, for the respondent.

OPINION

COHEN, *Judge*: Respondent determined deficiencies of \$1,592,852 and \$9,542,483 in petitioner's Federal income taxes for 1976 and 1977, respectively. Certain of the adjustments in the statutory notice of deficiency have been resolved by agreement, and all of the facts have been

stipulated. Three issues remain to be resolved on cross motions for partial summary judgment. They are:

(1) Whether sales of leased equipment depreciated under the Class Life Asset Depreciation Range (CLADR) system constitute ordinary retirements under section 1.167(a)-11(d)(3), Income Tax Regs.;

(2) Whether amortizable original issue discount arises on the issuance of debentures by a subsidiary, convertible into stock of its parent, to the extent that the issue price is attributable to the conversion privilege; and

(3) Whether amortizable bond premium arises upon conversion of debentures, equal to the difference between the fair market value of stock distributed in exchange for the debentures and the face value of the debentures.

Honeywell Inc. (petitioner) is a Delaware corporation with its corporate headquarters in Minneapolis, Minnesota. Petitioner and its numerous domestic and foreign subsidiaries engage on a worldwide basis in the design, manufacture, sale, and service of automation equipment and systems, including automation systems and controls for homes and buildings, industrial controls and control systems, aerospace and defense systems, and computer and communication products.

Petitioner and its domestic subsidiaries file consolidated Federal income tax returns using the accrual method of accounting with the calendar year as the taxable year. Petitioner timely filed its Federal income tax returns for 1976 and 1977 with the Internal Revenue Service Center at Ogden, Utah. In addition to disputing the amounts determined by respondent in the statutory notice, petitioner contends that it overpaid its Federal income taxes by \$415,509 and \$361,591 for 1976 and 1977, respectively.

Sales of Leased Computers

Since 1957, petitioner has developed and manufactured electronic data processing (EDP) systems. An EDP system, often termed and hereinafter referred to as a computer, is a complex series of equipment consisting of a central processor, input devices, and output devices. Input devices are mechanisms for reading data off punched cards, magnetic tape, and other similar input media, and translating it into

a form usable by a central processor. Output devices are mechanisms such as printers and magnetic tape units which transcribe data from the central processor into a form that can be used or stored outside the central processor.

Since 1970, petitioner's computer business has been conducted principally by its subsidiary, Honeywell Information Systems Inc. (HIS). For purposes of this action there is no need to differentiate between petitioner and HIS, so reference generally will be made simply to petitioner with the understanding that the activities described are in most instances carried on by HIS.

As petitioner's computer business evolved, it came to include both outright sales of new computers to customers, leases of computers to lessees, and sales of leased computers to lessees. Petitioner now manufactures, sells, and leases computers.

The computer business is capital intensive, requires vast expenditures for research and development, and changes rapidly, with equipment quickly becoming technologically obsolete. This means, on the one hand, that manufacturers are particularly concerned with maximizing the number of units delivered to customers and, on the other hand, that customers are frequently reluctant to purchase computers outright. Leasing is a way to accommodate both sets of concerns and, consequently, the leasing of computers has become a significant economic activity.

A willingness to lease computers is a vital part of the business of computer manufacturers such as petitioner. Many potential customers either cannot afford to purchase the equipment or prefer to lease the equipment for financial, tax, or accounting reasons. From the manufacturer's point of view, the ability to lease computers enables it to reach more customers, which permits the generation of additional revenue to offset the massive overhead involved in the development and manufacture of computers. In the computer industry, leasing is so important that a failure to offer leasing as an option would seriously circumscribe a manufacturer's business by substantially reducing the volume of computers that it could ship to customers, thereby reducing its potential revenue and making it more difficult to operate profitably.

The computer business is a significant part of petitioner's business. Petitioner's revenue from its computer business in 1976 and 1977 was approximately 36 percent of its total revenues. More than 30 percent of total inventories as of December 31, 1977, related to its computer business. As of December 31, 1977, more than 70 percent of petitioner's investment in tangible property (land, buildings and improvements, machinery and equipment, and construction in progress), net of accumulated depreciation, was invested in property used in its computer business. During the years in issue, petitioner's investment in equipment leased by it to third parties was in excess of 60 percent of its total investment in tangible property, whether measured by cost or net book value.

Petitioner's revenues from computer rental and service were as follows in 1976 and 1977, which were typical of other years:

	1976	1977
Computer rental revenue	\$304,000,000	\$323,000,000
Computer service revenue	<u>218,000,000</u>	<u>275,000,000</u>
Total	522,000,000	598,000,000
Percentage of information systems (computer business) revenue	57.1%	57.7%
Percentage of total revenue	20.9	20.5

The computer service category includes maintenance service income on computers that have been leased as well as sold.

Petitioner must supply the capital to finance its costs of owning leased computers either through retention of earnings, issuance of stock, or borrowing. Petitioner borrows substantial amounts of capital in order to finance its computer business in general, and its ownership of leased computers, in particular.

All leases of computers by petitioner were subject to written lease contracts. Various forms of contracts were used from time to time, depending upon the length of the lease and other factors, and the forms in use were changed from time to time. Such contracts generally granted the lessee an option to purchase the leased equipment and provided that a portion of the rentals paid would be

credited against the sales price upon the exercise of the option.

Some of the computers initially leased to customers in 1976 ultimately were sold in 1976. The total sales proceeds from the sale of such computers were \$4,978,492. Some of the computers initially leased to customers in either 1976 or 1977 ultimately were sold in 1977. The total sales proceeds from the sales of such computers were \$26,002,110.

Petitioner's cost of new computers originally placed in service by lease in each of the years 1976 through 1980, and the percentage, by cost, of those leased computers which were sold in each of the years 1976 through 1983 are as shown on page 629.

No lessee was under any obligation to purchase the equipment being leased. If a lessee decided to consider purchasing the equipment, that was a voluntary choice on the lessee's part over which petitioner did not exercise control.

Petitioner was engaged in the trade or business of leasing computers and of selling computers within the meaning of the Internal Revenue Code at all times relevant to this action. For all times material and up to the time that the equipment was sold, respondent has allowed petitioner to treat the computers manufactured by it and leased to its customers as section 1245¹ property for which a depreciation deduction was allowable and as section 1231 property by reason of being used in petitioner's trade or business as soon as they were held for the time required by section 1231(b)(1).

Petitioner elected to depreciate all of its computers that it placed in service by leasing to customers in 1976 and 1977 under the CLADR system pursuant to section 167(m) and section 1.167(a)-11, Income Tax Regs., which provides in pertinent part as follows:

(a) *In general*—(1) *Summary*. This section provides an asset depreciation range and class life system for determining the reasonable allowance for depreciation of designated classes of assets placed in service after December 31, 1970. The system is designed to minimize disputes between taxpayers and the Internal Revenue Service as to the useful life of

¹Unless otherwise indicated, all section references are to the Internal Revenue Code of 1954 as amended and in effect during the years here in issue.

Year placed in service	1976	1977	1978	1979	1980
Cost of computers placed on lease during the year	<u>\$127,784,092</u>	<u>\$110,978,436</u>	<u>\$120,875,786</u>	<u>\$131,715,222</u>	<u>\$129,113,569</u>
Percentage of cost of computers placed on lease during the year, subsequently sold in—					
1976	1.9%
1977	3.4	5.7%
1978	3.8	4.9	1.2%
1979	4.3	4.8	12.2	3.4%	...
1980	3.3	4.6	4.4	5.7	1.9%
1981	4.4	4.9	5.8	6.4	5.9
1982	2.6	4.0	4.0	5.4	5.1
1983	2.9	4.0	4.4	4.2	5.0
Total percentage by cost of computers initially leased and subsequently sold	<u>26.6</u>	<u>32.9</u>	<u>32.0</u>	<u>25.1</u>	<u>17.9</u>

property, and as to salvage value, repairs, and other matters. The system is optional with the taxpayer. The taxpayer has an annual election. * * * Generally, the taxpayer must establish vintage accounts for all eligible property included in the election, must determine the allowance for depreciation of such property in the taxable year of election, and in subsequent taxable years, on the basis of the asset depreciation period specified in the election, and must apply the first-year convention specified in the election to determine the allowance for depreciation of such property. This section also contains special provisions for the treatment of salvage value, retirements, and the costs of the repair, maintenance, rehabilitation or improvement of property. In general, a taxpayer may not apply any provision of this section unless he makes an election and thereby consents to, and agrees to apply, all the provisions of this section. A taxpayer who elects to apply this section does, however, have certain options as to the application of specified provisions of this section. A taxpayer may elect to apply this section for a taxable year only if for such taxable year he complies with the reporting requirements of paragraph (f)(4) of this section.

(2) *Definitions.* For the meaning of certain terms used in this section, see paragraphs * * * (d)(3)(ii) ("ordinary retirement" and "extraordinary retirement") * * *

(b) *Reasonable allowance using asset depreciation ranges—* * * *

(3) *Requirement of vintage accounts—(i) In general.* For purposes of this section, a "vintage account" is a closed-end depreciation account containing eligible property to which the taxpayer elects to apply this section, first placed in service by the taxpayer during the taxable year of election. The "vintage" of an account refers to the taxable year during which the eligible property in the account is first placed in service by the taxpayer. * * *

(d) *Special rules for salvage, repairs and retirements—* * * *

(3) *Treatment of retirements—(i) In general.* The rules of this subparagraph specify the treatment of all retirements from vintage accounts. * * * An asset in a vintage account is retired when such asset is permanently withdrawn from use in a trade or business or in the production of income by the taxpayer. A retirement may occur as a result of a sale or exchange, by other act of the taxpayer amounting to a permanent disposition of an asset, or by physical abandonment of an asset. A retirement may also occur by transfer of an asset to supplies or scrap.

(ii) *Definitions of ordinary and extraordinary retirements.* The term "ordinary retirement" means any retirement of section 1245 property from a vintage account which is not treated as an "extraordinary retirement" under this subparagraph. * * *

(iii) *Treatment of ordinary retirements.* No loss shall be recognized upon an ordinary retirement. Gain shall be recognized only to the extent specified in this subparagraph. All proceeds from ordinary retirements shall be added to the depreciation reserve of the vintage account from which the retirement occurs. See subdivision (vi) of this subparagraph for optional allocation of basis in the case of a special basis vintage account. See subdivision (ix) of this subparagraph for recognition of gain when the depreciation reserve exceeds the unadjusted basis of the vintage account. * * *

(ix) *Recognition of gain or loss in certain situations.* (a) In the case of a vintage account for section 1245 property, if at the end of any taxable year after adjustment for depreciation allowable for such taxable year and all other adjustments prescribed by this section, the depreciation reserve established for such account exceeds the unadjusted basis of the account, the entire amount of such excess shall be recognized as gain in such taxable year. * * *

The parties agree that the subject sales are not extraordinary retirements.

Petitioner established vintage accounts for the computers leased during 1976 and 1977, respectively; established a depreciation reserve for each vintage account; and properly depreciated the computers in accordance with its CLADR election in 1976 and 1977 prior to their sale.

In accordance with its view of section 1.167(a)-11, Income Tax Regs., petitioner did not recognize gain on the sale of the computers initially leased during 1976 and subsequently sold during 1976 or 1977 or on the sale of the computers initially leased during 1977 and subsequently sold in 1977. The proceeds from the sales of such computers were added to the depreciation reserve of the appropriate vintage account. Because the depreciation reserve of the vintage account, after the addition of such sales proceeds, was less than the cost basis of the vintage account, petitioner recognized no gain in the year of the sale.

Petitioner continued after 1977 to add the proceeds from the sale of leased computers to the depreciation reserve for the vintage account in which the cost of the computers sold had been recorded. Once the depreciation reserve for a vintage account equaled the cost basis thereof, petitioner reported the entire sales proceeds as ordinary income.

The history of petitioner's reporting for 1976 and 1977 vintage accounts and the sale of leased computers. the

cost of which had been recorded in those accounts, was as follows:

	1976	1977
Initial cost basis	\$153,250,489	\$154,190,709
Additions to depreciation reserve:		
1976: Depreciation	19,759,916	---
Sales of leased computers	7,815,338	---
1977: Depreciation	35,556,975	19,215,607
Sales of leased computers	13,030,248	23,082,890
1978: Depreciation	30,938,502	36,110,302
Sales of leased computers	10,830,263	20,109,302
1979: Depreciation	24,519,632	30,221,378
Sales of leased computers	12,120,412	12,552,129
1980: Depreciation	---	15,727,953
Sales of leased computers	---	0
1981: Depreciation	(1,320,797)	(2,828,852)
Sales of leased computers	---	0
Total: Depreciation	109,454,228	98,446,388
Sales of leased computers	43,796,261	55,744,321
Total	<u>153,250,489</u>	<u>154,190,709</u>
Proceeds of sales of leased computers taken directly into income:		
1979	806,854	---
1980	6,242,226	7,119,515
1981	1,881,645	6,455,575
1982	2,466,743	4,699,248
1983	5,266,865	6,465,110
Total through 1983	<u>16,664,333</u>	<u>24,739,448</u>

The credit to depreciation in 1981 was an internal audit adjustment to correct earlier errors.

Respondent's position is that sales of computers that are leased to customers of petitioner are not "retirements" and that they are not governed by the CLADR regulations. Respondent determined that petitioner's income should be adjusted by adding to sales revenues the selling price of the computers; adding to cost of sales the original cost basis of the computers less depreciation taken; reducing depreciation expense by removing the unadjusted basis of the property sold from the vintage account; and reducing the reserve for depreciation by removing the accrued depreciation for the property sold from the reserve account. The dispute between the parties is over the propriety of the adjustments; the amounts of the adjustments are not in dispute.

Petitioner contends that it followed precisely respondent's regulation set forth above and that, therefore, it is entitled to have its method of treating sales of computers approved. Respondent acknowledges that the regulations have been followed by petitioner but contends that the regulations were not intended to cover the computers sold by petitioner because such computers are "dual purpose property," i.e., property held both for sale and for lease. Thus, argues respondent, sales of the computers by petitioner are not "retirements" under the regulations, and gain on such sales must be computed and reported as they occur.

The concept of "dual purpose property" has been recognized in a series of cases relied on by respondent. *Hollywood Baseball International Shoe Machine Corp. v. United States*, 491 F.2d 157 (1st Cir. 1974); *Association v. Commissioner*, 423 F.2d 494 (9th Cir. 1970); *Continental Can Co. v. United States*, 190 Ct. Cl. 811, 422 F.2d 405; *Recordak Corp. v. United States*, 163 Ct. Cl. 294, 325 F.2d 460. These cases stand for the proposition that a manufacturer regularly engaged in the dual business of selling and renting the equipment it manufactures can claim depreciation on property that is at all times available for sale. Proceeds from the sale, however, are treated as ordinary income even though the property might otherwise qualify for capital gain treatment under section 1231. Respondent argues:

The logical result of this is that sales of dual purpose property are not sales of depreciable property at the time of sale even if the property was under lease just before the sale. Capital gains treatment is unavailable because at the time of the sale the equipment is deemed to have been held primarily for sale to customers in the ordinary course of business. This is the distinguishing factor between the type of retirements involved in petitioner's case and any other sale or exchange of an asset that is not dual purpose property, which would fairly be treated as an "ordinary retirement" under the regulations.

It is respondent's position that those sales that should be treated as ordinary retirements are sales of assets that would not be treated as being held primarily for sale to customers when they are sold. * * *

Because "dual purpose property" may be treated as being held for sale at the time of sale, argues respondent, the property is not as of that moment in time held for the production of income or eligible for depreciation. Respondent concludes "accordingly, removal of petitioner's com-

puters from their vintage account can be construed to have been necessitated not by a 'retirement,' but by the failure of the asset to qualify generally as depreciable property under the statute."

In support of his interpretation of the regulations, respondent describes the substantial deferral of recognition of income from sales of property to customers in the ordinary course of business and the basic purpose of the statute and regulations establishing the CLADR system to provide simplicity and ease of application. He argues that section 167(m) was not intended to reverse prior case law defining dual purpose property.

Petitioner relies on its adherence to the literal terms of the regulations and the absence of anything in the regulations supporting respondent's position. According to petitioner, the cases relied on by respondent deal only with the character of the gain recognized and not with the timing of the gain; because the gain ultimately recognized on sale of petitioner's computers will undisputably be ordinary gain, these cases do not provide the authority that respondent seeks. Respondent counters that the cases in question establish a "concept" that we should recognize as inherently keeping petitioner's computers outside of the scope of the regulations.

Answering respondent's arguments about the purposes of the statute and regulations establishing the CLADR system, petitioner argues that its application of the system is consistent with the history and policy of the statute and regulations. Simplicity is served, and because a taxpayer is required to defer recognition of loss as well as gain, the system is not inherently unfair. To the extent that the system is intended to encourage capital investment in depreciable property by providing favorable tax treatment for the property, there is no reason to deny that treatment to petitioner's property. Finally, petitioner asserts "a taxpayer's right to rely on clear and unambiguous regulations." Petitioner argues:

The IRS drafted the detailed regulations and did not choose to provide for any special treatment for such leased property. The IRS did not publicly state its position was that a portion of the CLADR regulation would not apply to this leased property until the issuance of

Revenue Ruling 80-37, 1980-1, C.B. 57 [sic], in 1980. Of course, as is discussed below, a revenue ruling cannot overrule a regulation, so the revenue ruling has no effect, but taxpayers were not even put on public notice until 1980 of the possibility the IRS would not follow its own regulations. Even if the revenue ruling did have effect for years after it was issued, it would be an abuse of discretion to apply it retroactively to the years in question since it is a change of position.

Petitioner cites a series of Internal Revenue Service memorandum documents issued in 1979 as indicating that the question of dual purpose property was not considered by the drafters of the regulations, and consideration was given to amending the regulations to expressly cover the situation of dual purpose property. Technical Advice Memorandum 7950005 (Aug. 13, 1979); G.C.M. 38116 (Sept. 28, 1979); see *Rowan Companies, Inc. v. United States*, 452 U.S. 247, 261 n. 17 (1981). Rather than amending the regulations, however, the Internal Revenue Service issued Rev. Rul. 80-37, 1980-1 C.B. 51, containing the arguments now relied on by respondent.

On this issue we conclude that petitioner is entitled to summary judgment in its favor. Respondent's reliance on cases defining dual purpose property as establishing a "concept" to override the express language of his regulations is unpersuasive. Section 1.167(a)-11(d)(3), Income Tax Regs., on its face is comprehensive as to "all retirements from vintage accounts," i.e., permanent withdrawal of the asset "from use in a trade or business or in the production of income by the taxpayer," and "may occur as a result of a sale or exchange, by other act of the taxpayer amounting to a permanent disposition of an asset, or by physical abandonment." Petitioner has not challenged, nor do we, respondent's right to amend the regulations to make the distinction between property held solely for use in its leasing business and property held either for lease or for sale. He cannot, however, achieve this result by a revenue ruling or by judicial intervention. See *Woods Investment Co. v. Commissioner*, 85 T.C. 274, 281-282 (1985).

Convertible Debenture Issues

On January 31, 1968, Honeywell Overseas Finance Co. (HOFC) was incorporated under the laws of the State of

Delaware as a 100-percent owned subsidiary of petitioner, with capital of \$6 million. HOFC has functioned at all times since its incorporation as a separate corporate subsidiary of petitioner. It was included in the consolidated Federal income tax returns filed by petitioner and its subsidiaries for years beginning in 1968, including 1976 and 1977.

HOFC is what is commonly referred to as an international finance subsidiary. It was formed for the principal purpose of obtaining funds (eurodollars) from overseas sources to be lent to or invested in foreign subsidiaries of petitioner. Petitioner formed the subsidiary in order to avoid subjecting the foreign lenders to (i) U.S. income tax of 30 percent of the interest paid, which tax would have been collected by withholding from the interest otherwise payable to the lenders, and (ii) U.S. estate tax. To avoid withholding and estate taxes, the borrowing corporation must receive less than 20 percent of its income from U.S. sources. (See generally *National Can Corp. v. United States*, 687 F.2d 1107, 1108-1109 (7th Cir. 1982).)

On February 15, 1968, HOFC offered and sold at par \$30 million of 15-year, 5-percent debentures. The debentures were exchangeable for petitioner's common stock at \$103.25 per share (with cash payable in lieu of fractional shares) from August 15, 1968, through February 15, 1983.

Petitioner engaged Eastman Dillon, Union Securities & Co., to render an opinion with respect to the amount of "discount" attributable to the "conversion" feature of the debentures. In a letter dated July 15, 1969, resulting from that engagement, Eastman Dillon, Union Securities & Co., by a general partner, stated:

We do not regard the amount of each "discount" as precisely determinable and are unable to make such determination. However, if Honeywell Overseas had in February 1968 sold a non-convertible debenture issue, guaranteed by Honeywell, Inc., we estimate that the issue could have been sold at a 7.35% yield. Using such a yield for computing the discount on the Convertible Debentures, they would have had to be sold at a price of 78.86% to produce a similar yield to maturity. Assuming the maximum value allocated to the conversion feature is the difference between that price and the price at which the Convertible Debentures were sold, the "discount" would be \$6,342,000.

Petitioner claims that it is entitled to amortize the sum of \$6,342,000 over the 15-year life of the debentures, i.e., deductions of \$422,796 per year.

The indenture provided that the debenture holders seeking to exchange their debentures for petitioner's stock would notify and deliver their debentures to the trustee, which would deliver the petitioner's stock in exchange. The stock was to be provided by HOFC unless otherwise agreed by HOFC and petitioner. The indenture also provided that petitioner was required to have stock available to make the exchanges.

Prior to any exchanges, HOFC and petitioner arranged for the exchanges to be made by petitioner using newly issued stock of petitioner. All exchanges were accomplished by a debenture holder exchanging his debenture with petitioner for petitioner's stock and perhaps cash in lieu of fractional shares. HOFC had the use of the capital raised by the debentures from their issuance on February 15, 1968, until their retirement on February 15, 1983. HOFC continued to pay interest on exchanged debentures following the exchanges through February 15, 1983. On February 15, 1983, all debentures not previously exchanged were retired by payment of the face amounts thereof by HOFC to the holders thereof.

Following each exchange, the debentures exchanged were held by petitioner until the February 15, 1983, maturity date of the debentures. On February 15, 1983, the debentures previously exchanged were delivered by petitioner to HOFC in exchange for the payment by HOFC to petitioner of the face amounts thereof.

(1) *Original issue discount.*

Section 1.163-3(a)(1), Income Tax Regs., provides:

(a) *Discount upon issuance.* (1) If bonds are issued by a corporation at a discount, the net amount of such discount is deductible and should be prorated or amortized over the life of the bonds. For purposes of this section, the amortizable bond discount equals the excess of the amount payable at maturity * * * over the issue price of the bond (as defined in paragraph (b)(2) of sec. 1.1232-3).

Section 1.1232-3(b)(2)(i), Income Tax Regs., provides in part:

In the case of an obligation which is convertible into stock or another obligation, the issue price includes any amount paid in respect of the conversion privilege. * * *

These regulations reflect the longstanding principle that when a note, bond, or other form of payment obligation is issued in an amount exceeding the proceeds actually received by the borrower, the difference between the two, referred to as the "discount," is deductible as interest. *Helvering v. Union Pacific Railroad Co.*, 293 U.S. 282 (1934).

The above regulations were promulgated on December 23, 1968, to apply to obligations issued after December 31, 1954. T.D. 6984, 1969-1 C.B. 38, 40. Petitioner contends that the regulations cannot be retroactively applied to the HOFC debentures issued February 15, 1968. Rather than dealing directly with the retroactivity question, respondent relies on various cases that, independent of the regulations, have held that a conversion privilege in a debenture does not give rise to an amortizable discount. *Chock Full O'Nuts Corp. v. United States*, 453 F.2d 300 (2d Cir. 1971); *AMF Incorporated v. United States*, 201 Ct. Cl. 338, 476 F.2d 1351; *Hunt Foods & Industries, Inc. v. Commissioner*, 57 T.C. 633 (1972), affd. per curiam 496 F.2d 532 (9th Cir. 1974). Petitioner contends that the cited cases are distinguishable because each one involved a situation in which the debentures were convertible into the stock of the issuer, whereas here the debentures were convertible into the stock of the parent of the issuer.

Petitioner argues that there has been a discount from the purchase price received by the issuer, attributable to the conversion feature, whether the debentures consist of two separate property rights or constitute a single property. In its argument, petitioner refers to the conversion feature as an "exchange privilege," that it purports to distinguish from the usual conversion feature where the issuer of the debenture and the issuer of the stock are the same corporation. In support of this distinction, petitioner argues:

When a corporation issues debentures that may be converted to the issuing corporation's stock, the debentures may be either exchanged for stock or retained until redeemed or retired. In other words, the debenture has two potential uses; one in the case of the exchange for stock in which

the debenture holder converts his debt instrument into an equity instrument; and the second, when the debenture holder retains the debt instrument until it is redeemed or retired. This dual-purpose feature of a debenture with a conversion feature for the issuing corporation's own stock is not present in the petitioner's case. HOFC has issued its debentures which may be converted into the stock of its parent, Honeywell. Therefore, even though the original HOFC debenture holder may exchange the debenture for stock of the parent (Honeywell), the parent holds the debenture as a debt instrument until it is redeemed or retired. Thus, at no time does the conversion feature relate to any equity position in the issuing corporation, HOFC. In this situation, the debenture issued by HOFC at a discount represents a cost or expense in acquiring the use of capital to the issuance of the debentures.

We are unpersuaded by petitioner's attempted distinction. Although the debt may remain outstanding even after conversion by the debt holder, the position of the issuer, HOFC, remains the same. HOFC has received the full amount of the proceeds. That the parent may have to comply with the conversion privilege, and that the full amount of the debentures will be due from the issuer, does not reduce the consideration actually received by the issuer. Petitioner argues that the conversion privilege was not sold by the issuer of the debentures "for its own account," but there is no indication that the parent received a part of the proceeds, rather than the issuer.

The rationale in *Chock Full O'Nuts Corp. v. United States*, *supra*, and the cases following it applies a fortiori where, as here, the issuer pays no more upon redemption of a debenture than was received on the issuance of the debenture. HOFC does not face any economic loss at the time of conversion, as contrasted to the issuer who may be required to redeem or to convert at the option of the debenture holder. See *Chock Full O'Nuts v. United States*, 453 F.2d at 304. Moreover, the amount deemed to be paid for the conversion feature is not in the nature of interest, i.e., the cost of obtaining capital. See *Chock Full O'Nuts v. United States*, 453 F.2d at 305-306. Thus, the rationale of these cases was extended to the issuance of debentures by a subsidiary convertible into stock of its parent in *National Can Corp. v. United States*, 520 F. Supp. 567, 574-576 (N. D. Ill. 1981), affd. on other issues 687 F.2d 1107 (7th Cir. 1982). Although it may be true, as petitioner argues, that where the same corporation is the issuer of the debentures

and of the stock, the total consideration to be paid on conversion is uncertain as of the time of the issuance, the distinction does not undermine the rationale of the controlling authorities.

We therefore conclude that respondent is entitled to prevail as a matter of law on this issue, and that petitioner has no amortizable original issue discount arising from issuance of the HOFC debentures.

(2) *Bond premium.*

Petitioner seeks to deduct as bond premium expense under section 171 the difference between the market value of petitioner's stock at the time of a conversion and the face value of the debentures converted. Again, the theory of deductibility is that the amount, i.e., the premium, is a cost of using the capital. Section 171(b)(1), however, provides that the amount of amortizable bond premium on a convertible bond shall not include any amount attributable to the conversion features of the bond.

The parties agree that this issue was decided adverse to the taxpayer in *National Can Corp. v. United States*, 687 F.2d 1107 (7th Cir. 1982). Petitioner argues, however, that *National Can Corp.* was wrongly decided in view of *Commissioner v. Korell*, 339 U.S. 619 (1950).

In *Korell*, the Supreme Court concluded that amortizable bond premium arose under an earlier statutory provision from payment for convertible bonds in excess of the face value of the bonds as a result of a conversion feature in the bonds. The Supreme Court stated:

We adopt the view that "bond premium" in section 125 means any extra payment, regardless of the reason therefor, in accordance with the firmly established principle of tax law that the ordinary meaning of terms is persuasive of their statutory meaning.

We conclude that Congress made no distinctions based upon the inducements for paying the premium. Congress delimited the bond premium it wished to make amortizable in terms of categories of bonds, and there is no doubt that respondent purchased bonds which are included within the purview of section 125. * * * [*Commissioner v. Korell*, 339 U.S. at 627-628. Fn. ref. omitted.]

Following *Korell*, Congress amended the statutory provision to exclude from amortization of bond premium the

amount of a premium paid by the purchaser "attributable to the conversion feature of the bond." This rule was continued as section 171(b)(1) of the Internal Revenue Code of 1954. In *Hanover Bank v. Commissioner*, 369 U.S. 672, 683 (1962), the Supreme Court commented:

The decision in *Korell* led to congressional re-examination of Section 125, and the enactment of Section 217(a) of the Revenue Act of 1950 (64 Stat. 906), which eliminated amortization of bond premiums attributable to a conversion feature. However, response to the *Korell* decision was specifically limited to the convertible bond situation; no further change was made in the statute which would reflect on its interpretation in the case before us.¹⁷

17. The legislation simply provided:

"In no case shall the amount of bond premium of a convertible bond include any amount attributable to the conversion features of the bond."

Where, as in the case before us, a question of interpretation of Section 125 is presented lying outside the scope of the 1950 Amendment, *Korell* retains its full vitality. * * *

[369 U.S. at 683.]

Petitioner argues that, as a result of the Supreme Court opinions, the term "bond premium" in the applicable statutes is defined as "any extra payment, regardless of the reason therefor." Petitioner would define the exception in section 171(b) as inapplicable here because the debentures are not convertible in the hands of Honeywell, so that Honeywell paid nothing "attributable to" the conversion feature. Petitioner argues that the Court of Appeals for the Seventh Circuit erred in interpreting the phrase "attributable to" to convertible bonds before or after conversion, whereas the intention of the drafters of the legislation responding to *Korell* was merely to differentiate between premium attributable to interest rate considerations and premium attributable to a conversion feature.

Respondent's primary argument is that the amount in question cannot be amortizable bond premium because it did not arise on issuance of the bond, and the payment by the parent must be treated as a contribution of capital from petitioner to HOFC. In resolving the contentions of the parties, it is thus helpful to determine the true nature of the payment. Respondent argues that the amount in question, i.e., the excess of the fair market value of the stock over the

par value of the converted debenture, was created and "paid," not because of a variation in the interest rate market, but solely on account of the conversion feature as a function of the stock market. In *National Can Corp. v. United States*, *supra*, the Court of Appeals reasoned that congressional purpose in enacting section 171(b)(1) was to preclude an interest deduction for a stock conversion. 687 F.2d at 1114-1115.

On careful analysis, we believe that respondent's theory more accurately describes the feature to which the payment in question is attributable. At the time of issuance of the debentures, the interest rate market would have affected the determination of the conversion price. After that date, the decision of the holder of a debenture to continue to hold it or to convert it to stock would be affected by both changes in the interest rate and changes in the stock value. But once the stock was worth a sufficient amount in excess of the conversion price, the holders were likely to redeem the debentures. Stock could thereafter be held or converted into interest-bearing assets at the then current market rate. Although the converted debentures were no longer convertible in the hands of the parent, the amount paid by the parent to the redeeming holder was in satisfaction of the holder's conversion privilege and logically is attributable to that privilege and not to additional interest necessary to secure the proceeds of the original issue.

Thus we cannot disagree with the reasoning or the holding of the Court of Appeals in *National Can Corp. v. United States*, *supra*. Whether the amount in question is described as bond premium but limited by the exception contained in section 171(b) or is not bond premium in the first instance, respondent is entitled to summary judgment as a matter of law on this issue.

An appropriate order will be entered.

ALVARO RAMIREZ, PETITIONER v. COMMISSIONER OF
INTERNAL REVENUE, RESPONDENT

Docket No. 12373-85.

Filed September 23, 1986.

Under authority of sec. 6851 respondent made a termination assessment against petitioner, a Colombian citizen. Respondent failed to mail a notice of deficiency to petitioner within 60 days of the due date of petitioner's income tax return. Respondent subsequently mailed duplicate notices of deficiency to petitioner. *Held*: Sec. 6851(b) does not constitute a separate period of limitation for the mailing of a notice of deficiency. Therefore, the notices of deficiency mailed to petitioner are valid provided one was mailed to petitioner's last known address. Secs. 6501(a), (c)(3), 6851(b), I.R.C. 1954.

Prior to the mailing of the notices of deficiency, petitioner executed a power of attorney on which he indicated his address was in North Miami Beach, Florida. The power of attorney form used by petitioner included a request that copies of all IRS correspondence be mailed to petitioner's attorney-in-fact. Petitioner did not supply IRS with a mailing address for himself in Colombia. The Commissioner subsequently mailed a notice of deficiency to petitioner at the address shown on the power of attorney, but substituted Miami Beach, Florida, for North Miami Beach, Florida, in the mailing address. The Commissioner also mailed a duplicate notice of deficiency to petitioner at another address, but did not send a copy of the notice of deficiency to petitioner's attorney-in-fact. *Held*, the notice of deficiency was mailed to petitioner's last known address and the petition filed in this case approximately 3 years after the mailing of the notice of deficiency is untimely. Secs. 6212(b), 6213(a), I.R.C. 1954.

Sidney A. Soltz, for the petitioner.

Susan Wynne, for the respondent.

GOFFE, Judge: This case is before us on respondent's motion to dismiss for lack of jurisdiction based upon the petition's being filed more than 3 years after the mailing of the statutory notice of deficiency. We must now decide if a statutory notice of deficiency, mailed subsequent to a termination assessment by the Commissioner, but not within the specified period set forth in section 6851(b),¹

¹Unless otherwise indicated, all section references are to the Internal Revenue Code of 1954 as amended and in effect for the relevant years, and all Rule references are to the Rules of Practice and Procedure of this Court.

gross income, and 2) any claim of a deduction, credit or basis for which there is no basis in fact or law. We have found above that petitioner-husband omitted substantial items from his gross income in 1984. Omitted income constitutes a grossly erroneous item per se, regardless of any lack of basis in fact or law for its omission. Deductions, however, must have been claimed without any basis in fact or law in order to be grossly erroneous. A deduction has no basis in fact when the expense for which the deduction is claimed was never, in fact, made and has no basis in law when the expense, even if made, does not qualify as a deductible expense under well settled legal principles or when no substantial legal argument can be made to support its deductibility. Such deductions can be referred to as frivolous, fraudulent, or phony. *Douglas v. Commissioner*, 86 TC 758, 762-763 (1986), affd. without published opinion (10th Cir. 1989). Petitioner Dolores Portillo may not rely on the disallowance or the failure to substantiate the deductions alone to prove a lack of basis in fact or law. *Douglas v. Commissioner*, supra at 763. Accordingly, we hold that petitioner Dolores Portillo has failed to prove that the disallowed cost of goods sold deductions attributable to her husband are grossly erroneous items with the meaning of section 6013(e)(2)(B).

With respect to the omitted items of income, which we have found to be a grossly erroneous item, petitioner Dolores Portillo must show pursuant to section 6013(e)(1)(C) that she did not have actual knowledge of the understatement of tax and that the understatement was not of such character that a reasonably prudent person, considering her experience and temperament, would have known of the understatement. See *Sanders v. United States*, 509 F.2d 162 [35 AFTR2d 75-935] (5th Cir. 1975). Mrs. Portillo neither speaks nor reads English. She had a very rudimentary education. She has never worked outside her home and took no part in her husband's business affairs or book-keeping. She executed the 1984 tax return at the request of her husband without comprehending the nature of its contents. Mrs. Portillo paid household bills with the cash given to her by her husband. There is no evidence of unusual or lavish expenditures or any marked increase in the general standard of living of the Portillo family. We find on these facts that the third condition required by the statute has been met.

Finally, Mrs. Portillo must show that it would be inequitable to hold her liable for

the tax liability to the extent attributable to the substantial understatement. See section 6013(e)(1)(D). We find that she has met this condition as well. Mrs. Portillo did not benefit from her husband's substantial understatement of tax. She and her husband did not lead a lavish or unusual life-style. Nor did she acquire any extravagant gifts during this period. Normal familial support does not constitute a significant benefit for purposes of making the determination under section 6013(e)(1)(D). *Terzian v. Commissioner*, 72 TC 1164, 1172 (1979). We find, under these facts and circumstances, that it would be inequitable to hold petitioner Dolores Portillo liable. We therefore conclude that, with respect to the omitted item of income, Mrs. Portillo is entitled to innocent spouse relief.

Decision will be entered under Rule 155.

[¶ 90,069] TC Memo 1990-69. ROY A. AND LEOLA McKNIGHT. Docket No. 22859-88. 2-13-90. Opinion by COHEN, J. Year 1985. Deficiencies redetermined.

1. DEPRECIATION—ACRS for 1981-1986—depreciation for short tax year. Taxpayer was entitled to depreciation deduction for full year on computer equipment placed in service for last 4 months of tax year at issue. Short tax-year provision of former IRC §168(f)(5) didn't apply even though taxpayer wasn't involved in computer business before equipment was placed in service: taxpayer was engaged in trade or business of being director of corporation unrelated to his computer business (he was continuously and regularly involved in affairs of corp.). IRS conceded that taxpayer's prior trade or business didn't have to be related to one in which equipment was used for taxpayer to avoid short tax-year treatment. *Reference: PH Fed. 2nd ¶1688.500(45). IRC §168.*

Official Report

John J. Collins, Jr., and Emily Cosner Tobias, for the petitioners.

Thomas M. Rath, for the respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

COHEN, *Judge*: Respondent determined a deficiency of \$23,593 in petitioners' Federal income tax for 1985 and an addition to tax of \$5,898 pursuant to section 6661.

Unless otherwise indicated, all section references are to the Internal Revenue Code, as amended and in effect for the

year in issue, and all Rule references are to the Tax Court Rules of Practice and Procedure.

After a concession by respondent, the issues for decision are (1) whether petitioner-husband was engaged in a trade or business in 1985 for purposes of section 168 and, accordingly, is entitled to a full year's depreciation deduction; and (2) whether petitioners are liable for the addition to tax pursuant to section 6661.

FINDINGS OF FACT

Some of the facts have been stipulated, and the facts set forth in the stipulation are incorporated in our findings by this reference. Roy A. McKnight (petitioner) and Leola McKnight are husband and wife and resided in West Bloomfield, Michigan, at the time the petition in this case was filed.

During 1985, petitioner served as chief executive officer of Colt Industries Operating Corp., Haber Operations (Colt), for which he received compensation in the amount of \$342,538.95. During 1985, petitioner was the vice president, secretary, treasurer, and a member of the Board of Directors of Hi-Vol Products, Inc. (Hi-Vol), for which he received compensation in the amount of \$141,600.

In 1984, petitioner served on the Board of Directors of Taylor Made Products, Inc. (Taylor Made), and received \$16,125 as director's fees. Petitioner received no fees from Taylor Made in 1985. Petitioner sold 1,250 shares of Taylor Made stock in 1985 and reported \$48,750 as gain from the sale.

In 1985, petitioner owned a .0547-percent interest in the Carlyle Real Estate Limited Partnership-75 (Carlyle). Carlyle claimed depreciation deductions for financial statement purposes in the amount of \$1,153,333 for the year ended December 31, 1985.

Petitioner, in 1985, owned a .594-percent limited partnership interest in Petrotech Energy '75 Limited Partnership (Petrotech). Petrotech was engaged in a trade or business and claimed depreciation deductions in the amount of \$24,207 for 1985.

During 1985, petitioner participated in two oil and gas ventures with Merrill Drilling Company (Merrill). One of the ventures was in Michigan and the other was in Indiana. Petitioner entered into a written agreement with Merrill for each of the working interests he owned during 1985. One agreement was entered into in June 1985 and one in October 1985. In both agreements, the parties agreed to elect out

of the provisions of Subchapter K of Chapter 1 of the Internal Revenue Code. In 1985, petitioner deducted \$31,625 in intangible drilling costs and \$1,487 in legal and other professional fees with respect to the ventures.

On September 27, 1985, petitioner purchased a 5-percent interest in the First of Michigan Leasing Trust 1985-1 (Michigan Trust), a grantor trust formed as an investment vehicle for the purchase of certain computer equipment manufactured by Cray Research, Inc. The Purchase Agreement between Michigan Trust and First of Michigan Leasing, Inc. (Michigan Leasing), the seller of the equipment, was executed as of September 1, 1985. The Agreement of Lease between Michigan Trust, the lessor, and CIS Corporation, the lessee, was executed as of September 1, 1985. The Agreement of Lease commenced on September 1, 1985, and was to expire on August 31, 1992. The computer equipment was placed in service on September 1, 1985, the date the first fixed rental payment was to be paid to Michigan Trust.

On his 1985 Federal income tax return, petitioner claimed an Accelerated Cost Recovery System (ACRS) depreciation deduction in the amount of \$61,710 with respect to his interest in the computer equipment. The depreciation deduction was based on 5-year recovery property with a basis of \$411,400 and a 15-percent cost recovery percentage. Petitioner also claimed deductions for interest expense of \$17,717, legal and other professional fees expense of \$1,031, and "equity expenses" of \$556.

Respondent determined that petitioners were not entitled to the entire claimed depreciation on the computer equipment, but rather could claim only three-twelfths of the depreciation pursuant to the short taxable year provisions of section 168. Respondent now concedes that the property was placed in service in September 1985 and, accordingly, 4 months' depreciation is allowed.

OPINION

Section 168 established the ACRS system of depreciating certain tangible personal property, i.e., "recovery property." The deduction allowable under section 168 is deemed to constitute the reasonable allowance for depreciation in a taxable year. Generally, the ACRS deduction for recovery property for any taxable year equals the aggregate amount determined by multiplying the unadjusted basis of the property by the applicable annual percentage rate. Under the ACRS system, personal property

placed in service in a taxable year may be eligible for the same amount of depreciation that would be allowed if the property had been placed in service at the beginning of the year. (The foregoing rules were changed by the Tax Reform Act of 1986, Pub. L. 99-514, 100 Stat. 2085, 2121.)

Short Taxable Year

Respondent contends that petitioner is only entitled to four-twelfths of his claimed depreciation deduction pursuant to the "short taxable year" provision of former section 168(f)(5) as follows:

In the case of a taxable year that is less than 12 months, the amount of the deduction under this section shall be an amount which bears the same relationship to the amount of the deduction, determined without regard to this paragraph, as the number of months in the short taxable year bears to 12. In such case, the amount of the deduction for subsequent taxable years shall be appropriately adjusted in accordance with regulations prescribed by the Secretary. The determination of when a taxable year begins shall be made in accordance with regulations prescribed by the Secretary. ***

Respondent also relies on section 1.168-2(f)(4), Proposed Income Tax Regs., 49 Fed. Reg. 5940, 5947 (Feb. 16, 1984):

For purposes of this section, a taxable year of a person placing property in service does not include any month prior to the month in which the person begins engaging in a trade or business. ***

As of the time of this opinion, no final regulations have been issued.

Petitioner asserts that he was engaged in a trade or business in 1985 and, accordingly, is entitled to the full year's depreciation deduction on the computer equipment.

Prior to and during trial, respondent argued that, to avoid the short taxable year provisions of section 168(f)(5), a taxpayer must be engaged in the particular trade or business in which the depreciable equipment was used. Respondent cited *Larsen v. Commissioner*, 89 TC 1229, 1278 (1987), on appeal (9th Cir., Dec. 12, 1988), and *Greené v. Commissioner*, TC Memo. 1988-331 [¶88,331 PH Memo TC]. At the conclusion of the trial, we tentatively agreed with respondent as a matter of law and directed seriatim briefs, with petitioners filing the opening brief.

Petitioner's brief attached a copy of Tech. Adv. Mem. 8935002 (May 12, 1989), discussed below. Respondent's brief then conceded that the prior trade or business engaged in by petitioner need not be related to the one in which the equipment is

used in order for petitioner to avoid section 168(f)(5). His brief did not even mention Larsen or Greene. The only question before us in this case, therefore, is whether any of petitioner's activities prior to and during 1985 constitute a trade or business for purposes of section 168.

Respondent does not dispute that for some purposes a taxpayer may be engaged in a trade or business solely due to his activity as a director or officer of a corporation. Respondent asserts, however, that in the case of a claimed depreciation deduction, as in the present case, an employee is not considered engaged in a trade or business by virtue of his employment. Respondent relies on section 1.168-2(f)(4), Proposed Income Tax Regs., 49 Fed. Reg. 5940, 5948 (1984), which states: "For purposes of applying the preceding sentence [the short taxable year provision] to an employee, an employee is not considered engaged in a trade or business by virtue of his employment"; and Example (4) of section 1.168-2(f)(6), Proposed Income Tax Regs., 49 Fed. Reg. 5940, 5948 (1984), illustrates the application of the regulation as follows:

In July 1983, D, who has been an employee of Corporation N since 1982, purchases an automobile for use in the performance of his employment for N. On June 5, 1984, D purchases a truck for use in another business. D begins the new business on June 5, 1984. In 1984, D holds no other depreciable or recovery property for the production of income. D does not have a short taxable year for the automobile purchased in 1983 since the automobile is used by D in his trade or business as an employee. Since an employee is not considered engaged in a trade or business by virtue of employment, however, for purposes of determining when a taxable year begins with respect to property not used in the trade or business of employment, D has a short taxable year in 1984 for the truck purchased in that year. The recovery allowance permitted D in 1984 with respect to the truck must be adjusted in accordance with the provisions of section 1.168-2(f).

Respondent contends that the illustration in the proposed regulations is analogous to the present case because petitioner was not engaged in another trade or business within the meaning of the proposed regulations, other than his employment by the two corporations, Hi-Vol and Colt. Accordingly, respondent maintains that the short taxable year provision applies in the present case. Proposed regulations, however, "carry no more weight than a position advanced on brief by the respondent."

F.V
TC
I
cor
bus
reli
[49
Un
69-
mis
(2d
707
Cir
F.
197
78-
Me
I
Sec
wh
dut
ceiv
ary
ren
sals
cou
for
ing
]
tha
Cor
cor
wa:
his
ceiv
of
De.
pay
bein
sec
ject
In
a c
hol
ible
inc
as
larl
I
Ele
pre
wh
em
tioi
ing
dir
48:
I
Me
aw:
hav
© I

F.W. Woolworth Co. v. Commissioner, 54 TC 1233, 1265-1266 (1970).

Petitioner asserts that his activities as a corporate director constitute a "trade or business" for purposes of section 168. He relies on *Folker v. Johnson*, 230 F.2d 906 [49 AFTR 375] (2d Cir. 1956); *Mitchell v. United States*, 408 F.2d 435 [23 AFTR2d 69-918] (Cl. Ct. 1969); *Hochschild v. Commissioner*, 161 F.2d 817 [35 AFTR 1373] (2d Cir. 1947); *Steffens v. Commissioner*, 707 F.2d 478 [52 AFTR2d 83-5227] (11th Cir. 1983); *DePinto v. United States*, 407 F. Supp. 1 [37 AFTR2d 76-523] (D. Ariz. 1975), affd. 585 F.2d 405 [42 AFTR2d 78-6345] (9th Cir. 1978); and *Tech. Adv. Mem. 8935002* (May 12, 1989).

In *Folker*, the Court of Appeals for the Second Circuit held that a corporate officer who devoted his entire working time to his duties as a corporate officer and who received compensation in the form of a salary was engaged in the trade or business of rendering services for pay; accordingly, his salary was business income from which he could not deduct nonbusiness expenditures for purposes of computing his net operating loss carryback. 230 F.2d at 909.

The Court of Claims in *Mitchell* held that, for purposes of section 162 of the Code, the taxpayer's activity of being a corporate official of his own corporation was his primary trade or business despite his participation and compensation received for acting as an officer and director of other corporations. 408 F.2d at 439. In *DePinto*, the District Court held a taxpayer was not in the trade or business of being a corporate director for purposes of section 162, because he lacked a profit objective in such activity. 407 F. Supp. at 4. In *Hochschild*, attorney's fees incurred by a corporate director in defending a stockholder's derivative action were held deductible as necessary and reasonable expenses incurred in the trade or business of acting as a corporate director, an activity regularly carried on by the taxpayer.

In *Steffens*, the Court of Appeals for the Eleventh Circuit held, under the facts there presented, that for purposes of determining whether a taxpayer was subject to the self-employment tax, "A director of a corporation is engaged in the business of performing those duties that devolve to him as a director of the corporation." 707 F.2d at 483.

Finally, petitioner relies on *Tech. Adv. Mem. 8935002* (May 12, 1989). We are aware that technical advice memoranda have no precedential value and should not

be cited as authority. Sec. 6110(j)(3). We may, however, in the absence of authority to the contrary, accept the reasoning of a technical advice memorandum as persuasive.

In *Tech. Adv. Mem. 8935002* (May 12, 1989), the taxpayer was an employee and sole shareholder of two S corporations, a partner in general and limited partnerships, and a director of a company. On or about December 1, 19X1, the taxpayer, acting in concert with a small group of other taxpayers, purchased an undivided interest in computer equipment that was then leased to a variety of lessees. On his Federal income tax return for 19X1, the taxpayer claimed a full year recovery deduction under ACRS. On audit, the Internal Revenue Service District Office (District Office) took the position that the short taxable year rules of former section 168(f)(5) applied to the taxpayer and, as a result, the taxpayer's ACRS deduction was reduced by eleven-twelfths.

The Internal Revenue Service National Office (National Office) determined that the taxpayer's ACRS deduction was not subject to the short taxable year rules of former section 168(f)(5). The National Office reasoned that in the absence of final or temporary regulations under section 168, and in light of the conceptual similarities underlying sections 167 and 168, the regulations under section 167 provide guidance with respect to determining whether a short taxable year exists under section 168.

Section 1.167(a)-11(c)(2)(iv), Income Tax Regs., provides that a taxpayer should not receive a depreciation deduction for any month before the month in which the taxpayer begins engaging in a trade or business or holds depreciable property for the production of income. The issue thus became "whether a taxpayer may be subject to the restrictive short taxable year provisions of paragraphs (b), (c), and (d) of section 1.167(a)-11(c)(2)(iv) of the regulations, with respect to specific depreciable property, by virtue of a year-long unrelated business activity."

In *Tech. Adv. Mem. 8935002* (May 12, 1989), the National Office concluded that:

An affirmative response can be drawn from a literal reading of paragraphs (b), (c), and (d) [of the regulations under section 167] which do not specify that the business activity must be related to the subject property later placed in service. We believe that the wording of the section 167 regulations and the intent of section 168 more reasonably support the

conclusion that the operative business activity may be unrelated to depreciable property later placed in service by a taxpayer. There is no indication in the section 167 regulations that the property has to be related. While the administrative burden on some taxpayers in some cases may require a relationship, a reasonable interpretation of section 168(f)(5), in this case, does not require that the property be related until or unless relevant section 168 regulations so provide. Related paragraphs (b), (c), (d)(1), and (d)(2) [of the section 167 regulations] serve a meaningful function, and when read as an integrated whole, support a conclusion that does not require a relationship between the prior business activity and the subject depreciable property.

Taxpayer, as a director, actively engaged in the management of real estate during all of [19X1]. The facts demonstrate that Taxpayer was already engaged in a business prior to [December 1, 19X1], when he purchased an undivided interest in the computer equipment. Based on the information provided, this business activity extended throughout [19X1].

Whether an activity is a trade or business may vary from one case to another depending on which section of the Code is involved. See *Commissioner v. Groetzinger*, 480 U.S. 23, 27 [59 AFTR2d 87-532] (1987). We see no principled distinction, however, between the facts in this case and those in the cases relied on by petitioner. By contrast, the example in the proposed regulation describes a person only as an employee. There is no indication that the result would or should be the same if the person were also an officer or director and thus had significant management responsibilities of the sort described in the technical advice memorandum.

Respondent has conceded the issue on which we had previously indicated an inclination to agree with his position. He now attempts to require an unspecified degree of "continuous and regular involvement in the affairs of a corporation" as the element determining whether a corporate director is engaged in a trade or business. On this record, and using that criterion, we are persuaded that petitioner was engaged in a trade or business in 1985 prior to his investment in the depreciable equipment and is entitled to a full year's depreciation under ACRS.

Our conclusion makes unnecessary con-

sideration of petitioner's other arguments, i.e., that he was engaged in the trades or businesses of his limited partnerships, oil and gas exploration ventures, or that he held depreciable property for the production of income. Our decision also makes unnecessary consideration of the addition to tax under section 6661.

Decision will be entered under Rule 155.

¶ [90,070] TC Memo 1990-70. EVE-RETTE M. AND ANNE P. EDWARDS, JR. Docket No. 11858-88. 2-13-90. Opinion by GALLOWAY, Sp.Tr.J. Years 1983-1985. Deficiencies redetermined.

1. OTHER BUSINESS DEDUCTIONS—Deductions attributable to activities not engaged in for profit. Taxpayer didn't operate commercial fishing activity with profit objective: despite business acumen, taxpayer didn't analyze costs and risks before starting up and sustained large losses in years before those in issue. Without commercial fishing experience, taxpayer sold fish in sporadic, haphazard manner and sought no expert advice to improve profitability. Lack of profit motive eliminated use of ITC, which required property to be used in trade, business, or production of income. However, taxpayer wasn't required to recapture earlier ITC in later year: usage didn't change in that year. Penalty imposed for substantial understatement: taxpayer lacked substantial authority for deductions and failed to make adequate factual disclosure on returns. *Reference:* PH Fed. 2nd ¶1835.01(147); 475.01(15); 485.03(27); 66,615(5). IRC §47; 48; 183; Former IRC §6661.

Official Report

Jerome R. Eatman, Jr. and Maria M. Lynch, for the petitioners.
Ross A. Rowley, for the respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

GALLOWAY, *Special Trial Judge:* This case was heard pursuant to the provisions of section 7443A(b) of the Internal Revenue Code of 1986 and Rules 180, 181, and 182.¹

Respondent determined deficiencies in petitioners' Federal income taxes and additions to tax as follows:

Year
1983
1984
1985

The issue is whether the meaning of "engaged in" for purposes of section 6611(b) includes the years 1978 through 1985. The issue is whether the meaning of "engaged in" for purposes of section 6611(b) includes the years 1978 through 1985.

Some of

Salary
Dividend
Section 1

Petitioner's income of \$100,000 in 1984, which was not reported on the 1984 return.

Petitioner's income of \$100,000 in 1984, which was not reported on the 1984 return.

Petitioner's income of \$100,000 in 1984, which was not reported on the 1984 return.

Petitioner's income of \$100,000 in 1984, which was not reported on the 1984 return.

¹ Unless otherwise indicated, all section references are to the Internal Revenue Code of 1954, as amended and in effect for the years in issue. All rule references are to the Tax Court rules of Practice and Procedure.

VANDEHEY Maggie

From: BREE William R
Sent: Thursday, December 16, 1999 11:09 AM
To: VANDEHEY Maggie
Subject: TC 4570 Willamette Industries

State of Oregon Department of Environmental Quality Memorandum

Date:

December 15, 1999

To: Maggie Vandehey

From: William Bree

Subject: TC 4570 Willamette Industries

I have review the letter from Willamette Industries relating to tax credit application number 4570, dated December 10, 1999 and stamped "received" December 18, 1999. As the original reviewer of this application I have the following comments regarding the information provided in this letter.

As I understand it, this letter make three points. First, it defends Willamette's position that as the owner/lessor claiming the tax credit the date that the facility was leased to a recycling firm and placed on Willamette's books is an appropriate date for substantial completion. Second, it documents that from an operational perspective the last of the elements of the claimed facility was not installed until February 1994. And finally, Willamette contends that the Department did not follow correct procedure regarding the filing deadlines and notification. I can address the first two of these points.

Since either the owner or operator of a solid waste pollution control facility may apply for tax credit certification there may be two perspectives with regard to completion of the facility. The owner's perspective of a facility is as a financial investment rather than an operational facility. It is reasonable that they would view the date that a facility starts to function as a financial investment, i.e. date of the beginning of a lease or date of placement on the books, as the date of completion of the investment in ownership. It should be noted that the lease of this facility included equipment which was intended to be part of the facility but had not yet been installed.

From an operational perspective, the information provided by the applicant documents that the final operational element of the facility was not installed until February 1994. This piece of equipment was identified in the application as a distinct part of the claimed facility. It would appear that if the applicant were to claim the facility from an operators perspective the date of final completion would have been February 1994. By documenting the installation of the final element of the facility the applicant appears to have established that the facility was actually put in use before it was substantial complete. And further that all construction was not complete until February of 1994 not September or November 27, 1993.

I have not reviewed the issue and will not comment upon the questions regarding date of filing, 30 day initial review period, and the 120 day from filing EQC approval deadline.

As an application reviewer, with the information presently at hand, I would not recommend rejection of this application.

William R. Bree
503 229-6046
Bree.William.R@deq.state.or.us

Find the latest Oregon Solid Waste Information at:
<http://www.deq.state.or.us/wme/solwaste/rsw.htm>

Date: January 24, 2000
To: Environmental Quality Commission
From: Langdon Marsh, Director
Subject: Agenda Item B, February 10, 2000, EQC Meeting
Tax Credit Applications

Statement of the Need for Action

This staff report presents the staff analysis of pollution control facility, and pollution prevention 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 Commission Rejection are presented in Attachment C.

According to the Commission's direction, this letter only calls out applications that may require background information not contained in the Review Reports, where staff seeks the Commission's policy direction.

Background APPROVALS: Attachment B

The applications presented for approval in Attachment B:

1. Meet the eligibility requirements for approval Pollution Control Facility Tax Credit and the Pollution Prevention Tax Credit programs.
2. Do not represent any Preliminary Approvals for the Pollution Control Tax Credit Program.
3. Are organized in application number sequence.

Background COMMISSION REJECTIONS – Attachment C

The applications presented for rejection in Attachment C:

1. Do not meet the timing requirements set forth in the Pollution Control Facility Tax Credit statute.
2. Do not represent any Preliminary Approvals for the Pollution Control Tax Credit Program.
3. Are organized in application number sequence.

Staff recommends the rejection of an application presented for 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.

Staff's recommendation to reject these applications is based on ORS 468.165(6).

ORS 468.165 (6)

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.

Submitted means the date that the application is received at the Department of Environmental Quality. The DEQ Business Office date-stamps the application upon receipt.

Substantial Completion, as defined in OAR 340-016-0010 (11), means the completion of the erection, installation, modification, or construction of all elements of the claimed facility, which are essential to perform its purpose.

Facility The term "facility" as it is used in the pollution control facility tax credit statutes does not refer to the plant site, the entire construction project or the business endeavor. It refers to the eligible pollution control components as defined in ORS 468.155, shown below in abbreviated form.

ORS 468.155 (1)(a)

As used in ORS 468.155 to 468.190, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, ... reasonably used, erected, constructed or installed by any person if:

Purpose The term "purpose" means either the principal or sole purpose of the facility not how the pollution control is accomplished. The eligible purposes are:

Principal purpose means the applicant is required to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority. It means they are required to "prevent, control or reduce air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil..."

Sole purpose means that the exclusive purpose of facility is "to prevent, control or reduce a substantial quantity of air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil."

In addition to defining a "facility, the statute defines what is not a facility.

ORS 468.155 (2)

"Pollution control facility" or "facility" does not include:...(d) Any distinct portion of a pollution control facility that makes an insignificant contribution to the ... sole purpose of the facility.

Placed in Service There is no definition of "placed in service" in the Pollution Control Facility Tax Credit statutes or rules. The Department relies on the common IRS definition, which states an asset is "*placed in service*" when it is in a condition or state of readiness and availability for its assigned function; it is not essential that the asset be put into actual use."

Willamette Industries, Inc. - Application Number 4570

On Tax Credit application number 4570, Willamette Industries, Inc. claimed a facility with the "sole purpose" of controlling, reducing or eliminating a substantial quantity of solid waste.

Willamette Industries entered into a lease with Far West Fibers, on January 1, 1994. However, Far West Fibers began operating the claimed facility three months prior to the execution of the lease on September 27, 1993. The date that Far West Fibers began operating the facility for "the purpose to prevent, control or reduce a substantial quantity of solid waste" is not in dispute. Both Far West Fiber's plant personnel and Jim Aden of Willamette Industries have stated this as fact.

The Department and Willamette Industries have different interpretations of the phrase "submitted within two years after construction of the facility is substantially completed" as outlined below.

1. Lease or Operational Date

The applicant claimed that the date of substantial completion of the facility should be the effective date of the lease, which is January 1, 1994. Subscribing to this interpretation, the application submitted on December 26, 1995 would meet the filing deadline.

Staff determined that the date the facility actually began operating for its pollution control purpose was the date of substantial completion. Far West Fibers began operating the facility for its pollution control purpose on September 27, 1993 and Willamette Industries submitted the application on December 26, 1995. General Counsel advised staff that it is doubtful that the court would sustain a determination based upon a single factor, such as the date of the leasehold or the date on which a company began to claim depreciation for tax purposes.

2. Essential Elements

On December 8, 1999 and December 10, 1999, Willamette Industries presented information that had not been previously presented to the Department. Willamette Industries presented this information over two years after they received a copy of the finalized Review Report.

The applicant claims that "all" elements of the claimed facility that are essential to perform its purpose were not in place; therefore, the facility was not substantially complete.

They claimed that two essential elements had not been completed until after December 31, 1, 1993.

- DCE dust filter system: The applicant did not begin installation of the dust filtration system until February of 1994, after the lease had been signed. "The DCE dust filter system lowers the level of dust in the building, keeps dust out of the work area and off the equipment, and helps insure safe driving conditions for forklift operators in the facility." (*Affidavit of Marc W. Olsen, Willamette Industries, Inc., Project Manager, East Multnomah County Recycling, December 8, 1999.*)

Rece Bly, Partner, Miller Nash, LLP, appearing before the EQC on December 20, 1999 on behalf of Willamette, stated the filter was not completed until April 94. He affirmed Mr. Olsen's affidavit that the system is needed for the safety of the forklift operators, that it was designed into the facility for the safety of the people working in the facility, and to keep the dust off the equipment. He confirmed that forklifts were operating within the building but that the filters "...didn't comply with the way the thing had been designed. They were struggling to get it up and get it the way it was suppose to be and took them an extra couple three months to get it up and running. There were forklifts but it wasn't running the way it had to and if we hadn't done what we did OSHA or somebody else would have been smashing us for operating un-safely. This is an important thing this filter. Just because you can operate it in a substandard way doesn't mean you loose a tax credit."

From the evidence presented by the applicant in this additional information, staff acknowledges that the dust filter system was not installed in the manner it was intended to run until after the lease had been signed. Staff also acknowledges that the dust filter system provides for safe driving conditions for the forklift operators and to keep dust off the equipment.

Staff determined that the dust filter system was **not essential** for the facility to perform its "sole purpose to control, reduce, or eliminate a substantial quantity of solid waste." This is based upon the fact that Far West Fibers began operating the facility for its pollution control purpose on September 27, 1993 and the purpose of the dust filter system is for industrial safety and for site maintenance.

- Willamette Industries stated that the 10-ton Toledo scale was not installed until after December 22, 1993. According to Mr. Aden of Willamette Industries, "This scale is used to weigh the barrels of loose paper waste and bales of corrugated cardboard in order to calculate payment to the suppliers."

On December 20, 1999, the Commission asked Mr. Bly about the role of the scales. He answered, "Suppliers are paid by a unit of weight to know how much to pay suppliers."

Staff was not able to determine the exact date that construction of the scales was substantially complete. Staff determined that the scales were **not essential** for the facility to perform its "sole purpose to control, reduce, or eliminate a substantial quantity of solid waste." This is evidenced by the fact that Far West Fibers began operating the facility for its pollution control purpose on September 27, 1993. Staff determined that the purpose of the scales is for billing purposes.

In his December 20, 1999 testimony before the Environmental Quality Commission, Mr. Bly stated that the law does not speak in terms of operating the facility when asked to provide a discussion of the fact that the facility was operating in September of '93. General Counsel has advised the Department that both the language and the context of the rules make it clear that staff's recommendation may be based upon whether the facility was being "operated" for its intended pollution control purpose.

Staff recommends the rejection of application number 4570 for certification as a pollution control facility because the applicant failed to file their Pollution Control Facility Tax Credit Application within two years after construction of the facility is substantially completed.

Mitsubishi Silicon America

Applications Numbered 5049, 5100, 5101, 5102, 5103, 5104, and 5105

The applicant concurs with the Department's determination that the applications presented in Attachment D were submitted beyond two years after the date that construction was substantially completed.

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 rejects Applications Numbered 4570, 5049, 5100, 5101, 5102, 5103, 5104, 5105 as presented in Attachment C 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

50009002

C. Rejections

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:

JR Roy

JR Roy for HELEN LOTTROGE
Report Prepared by: Margaret Vandehey
Phone: (503) 229-6878
Date Prepared: January 24, 1999

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

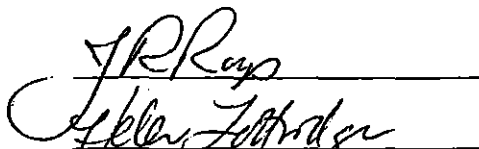
Reference Documents (available upon request)

- 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 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.

Kuerschner, Caroline E.

From: VANDEHEY Maggie [VANDEHEY.Maggie@deq.state.or.us]
Sent: Tuesday, February 08, 2000 12:53 PM
To: 'kuerschner@millernash.com'
Cc: HUSTON, Michael; LOTTRIDGE Helen A; 'jaden@wii.com'
Subject: Response Time Estimate for Public Records Request

Caroline,

Following is my response to your firm's public records request received at my office on January 28, 2000.

I am relatively sure that all documents specific to Willamette Industries' pollution control tax credit application number 4570 and those that discuss any aspect of the Director's Recommendation are included in the contents of the file as provided to Willamette Industries, Inc. on February 4, 2000.

EMAILS: My general procedure is to print emails and file the printed copy in the application file if they pertain to a specific application. I've searched my email for the key words 4570, Far West Fibers and EMR and I believe all of these documents are in the file you have. If the email did not contain one of these keywords then I may have missed it. Scanning for Willamette Industries was unproductive in the time allowed because of the number of applications processed for applicant.

In order to audit my email system, it would take about 8 hours since I keep active information on around 150 applications at a time. This would cost about \$9 to \$15 per hour for temporary staff to perform. I would have to schedule this with our systems group since I cannot be disconnected from my email for that period. Their hourly rate is about \$40 per hour. I'm sure this is a relatively short work-around but I'd need three days to schedule it.

GENERAL COUNSEL: I did not include documents between General Counsel and my office in the files that I provided to your firm on February 4, 2000. I was not able to determine the requirements on this short notice. If they are legally available to you, then I will make them available.

OLD FILES: Charles Bianchi's files are dated prior to October of 1996. There are 18 boxes that have not been sorted. It will cost about \$50 to retrieve the boxes from storage. It will cost \$9 to \$15 per hour if I hire temporary staff to search through the boxes to determine if there are any documents pertaining to application 4570. This could take up to 3 weeks depending on scheduling.

ITEM 4. Reducing the claimed cost by insignificant contributions to the purpose of the facility is provided in ORS 468.155 (2). You should have all printed material regarding insignificant contributions that are specific to application number 4570 with the exception of any OLD FILES or EMAILS mentioned above.

In order to find all historical references or discussions regarding this topic, we would have to research Commission minutes, Agenda Items and individual application files. The research of existing EQC records would cost between \$9 to \$15 per hour depending on the level of temporary staff expertise available. This would take under 8 hours. However, review of the individual files could take up to three months and would entail retrieving completed applications from storage though the initial research of EQC records could identify specific applications.

If you wish to have EQC meeting tapes transcribed where any aspect of this topic was discussed then the transcription costs would be passed on to your client. The cost and the timing would be dependent upon the service available.

ITEM 5. Accounting completion is discussed generally and may be found in the attached TOPIC DISCUSSION. This was developed after the May 1, 1998 rules went into effect. It is generally used to help reviewers identify when they should ask additional questions. Guidelines, the application and the instructions are updated once a year to help applicants and reviewers through the requirements set out in law. See ITEM 4 for the costs and timing associated with providing you with the various levels of information though this portion of the research should be more focused with fewer file retrievals.

You should have all printed material regarding substantial completion specific to application number 4570 with the exception of any OLD FILES or EMAILS mentioned above.

ITEM 6. I'm unclear about the ODEQ Application Instructions and Guidelines that you are referring to in Item 6. The current version came about after the May 1, 1998 rules. Substantial completion is reviewed in every application received and has been discussed in legislation, Advisory Committees, and a multitude of other documents. See ITEM 4 for the costs associated with providing you with the various levels of information. It would take several months to scour the records for all written material that discuss substantial completion. You could limit the request for a certain time period.

You should have all printed material regarding substantial completion specific to application number 4570 with the exception of any OLD FILES or EMAILS mentioned above.

All copies are made at \$.25 per copy.
Please call me at (503) 229-6878 if you have question.

Maggie Vandehey
Manager, Tax Credit Program

taxpayers in the *Meier* and *Harsaghy* cases, or the uniform of a highway patrol officer, as in the *Benson* case. In substantial part, the clothing here was new and ultra in style and design, and was such as might be sought after and worn for personal use by women who make it a practice to dress according to the most advanced or extreme fashions. All items were purchased by petitioner according to her sole discretion and judgment, and their selection was not dictated or controlled in any way by her employer. These facts, however, are not, in our opinion, conclusive of the question before us.

We are satisfied from the evidence that as fashion coordinator for General Shoe and in the earning of her salary as such, it was essential that petitioner, in her appearances at the various meetings of the leaders in establishing shoe styles and fashions and of store executives and their buyers, as well as at most or all of the style shows staged for the showing of General Shoe's lines of products, should wear clothing of the most advanced styles and fashions, and that some of the items so worn were as described by her, items which were not suited for her private and personal wear, as distinguished from business wear, and that she did not so wear them. We are also satisfied from the evidence that the wearing of ultra or advanced fashions in clothes and of the special items for the style shows, such as the clothing worn at the show for teen-agers in Tulsa, were not made any the less essential and prerequisite to the proper performance by petitioner of her duties as fashion coordinator by the refusal of General Shoe to make her an allowance therefor, whatever the normal reaction to such a policy might be. In short, we are satisfied that in employing her as its fashion coordinator, General Shoe expected and anticipated that she would, on the occasions indicated, wear such items of clothing and would provide them at her own expense. We accordingly conclude and hold that in each of the years herein some portion of the expenditures made by petitioner for her wardrobe constituted ordinary and necessary expense in the performance of her duties as fashion coordinator for General Shoe and in the earning of her salary as such, and are proper deductions in computing her net income for such years. See and compare *Wilson John Fisher*, 23 T. C. 218, 225.

The difficulty is with respect to the amounts so expended. Petitioner, in the course of her testimony, singled out a few specific items, which we are satisfied were suitable for and used only in her work. With respect to most items, however, her testimony was only general, and in many instances consisted merely of stated conclusions that the garments were of such character that they were not suitable for her personal and private use, and were not so used. At other points in her testimony, the basis for the conclusion seemed to be not so much the unsuitability of the various items for her personal and private wear, or that she did not so wear them, but rather that differences

in the climates of the places from which and to which she moved within comparatively short periods of time resulted in the purchase of more clothing and more varied clothing than she otherwise would have acquired. The extent to which these factors resulted in the purchase of clothing not suitable for personal wear and the discard thereof, without having been used for personal and private wear, the evidence does not show with any definiteness or certainty.

The facts show that in 1951 petitioner made 18 trips to various cities of the United States in the performance of her duties, two of which were to St. Louis, one to the Chicago Shoe Fair, and two were the March and September trips of 2 weeks each to New York, while the remainder presumably were for the staging of style shows. In 1952 she made 10 such trips, which included the March and September trips to New York, the October trip to Chicago, and 1 trip to St. Louis in February. In 1953 she made 11 trips, which included the March and September trips to New York, a February trip to St. Louis, and the October trip to Chicago. Since it was her testimony that she did not wear the clothing here in issue while performing her duties at the home office in Nashville, such variances in the number of trips might well suggest a conclusion that her expenditures for wearing apparel not privately or personally used were ratably less in 1952 and 1953 than in 1951. On the other hand, the actual number of days away from Nashville in the course of her employment shows a lesser variance. Her 18 trips in 1951 required 77 days, whereas the 10 trips in 1952 required 64 days and the 11 trips in 1953 required 60 days without accounting for the time spent on 2 Chicago trips. It may well be, also, that in 1951 she was able to use more items in more than one show than was true in 1952 and 1953. Applying the rule in *Cohan v. Commissioner*, 39 F. 2d 540, and bearing heavily against the petitioner, who had the burden of showing the permissible expenditures, we have concluded and found that for 1951 petitioner expended at least \$375, and for 1952 and 1953, \$300 for each year, in carrying out her duties and earning her salary as fashion coordinator for General Shoe, and to that extent the deductions claimed are allowed.

Decision will be entered under Rule 50.

NULEX, INC., PETITIONER, *v.* COMMISSIONER OF INTERNAL REVENUE,
RESPONDENT.

Docket No. 64777. Filed June 30, 1953.

Petitioner, dormant at the time, purchased a boat in 1946 for the purpose of entering into the commercial chartering business. It could not secure a license for the boat and decided to sell it. Although petitioner originally entered the boat on its books as a fixed

Petitioner never used the boat and never claimed depreciation on it. In 1952, it sold the boat for less than the purchase price and claimed the difference as a loss on cost of goods sold. Respondent disallowed the loss, reduced the basis by depreciation "allowable" and determined the petitioner realized long-term capital gain on the sale. *Held*, the boat was not property used in trade or business and, therefore, there was no depreciation allowable in regard to it. *Held, further*, that the boat was a capital asset, rather than an inventory item or property held for sale in the ordinary course of trade or business. Therefore, the difference between the selling price and the adjusted basis is a capital loss deductible under and subject to the limitations prescribed in sections 23 (g) and 117 (d), I. R. C. 1939.

Henry Ravenel, Esq., for the petitioner.

Joseph N. Ingolia, Esq., for the respondent.

The Commissioner determined a deficiency in petitioner's income tax in the amount of \$601.89 for the calendar year 1952. The deficiency for 1952 is due to the Commissioner's disallowance of a loss claimed on the sale of a boat which petitioner purchased in 1946 but which was never used because of the inability to secure a charter license. The petitioner claims a deduction for the difference between the purchase price of the boat in 1946 and the selling price in 1952. The respondent reduced the basis of the boat by depreciation allegedly allowable for the period petitioner held it (even though petitioner never claimed depreciation) and determined that petitioner realized a long-term capital gain rather than an ordinary loss on the sale, which petitioner reported on its return.

Other adjustments are not in issue.

FINDINGS OF FACT.

A stipulation of facts has been filed and is incorporated herein by this reference.

Petitioner Nulex, Inc., sometimes hereinafter referred to as Nulex, a Maryland corporation with its principal office in Washington, D. C., filed its Federal income tax return for the calendar year 1952 with the district director of internal revenue at Baltimore, Maryland.

Petitioner was organized under the name of Nulex Oil & Gas, Inc., on February 15, 1943, and its name was changed to Nulex, Inc., on March 15, 1948. The original business of petitioner was to drill oil wells, deal in oil and petroleum products, and operate oil and gas wells. This business was unsuccessful, the total income for the year 1943 being \$4.03 and there being no income for the years 1944, 1945, and 1946.

On September 27, 1946, petitioner contracted to purchase a boat named *Trail* which was anchored off Washington, D. C., for the total sum of \$25,000, paying therefor \$1,000 September 27, 1946, \$4,000

October 2, 1946, and \$20,000 November 21, 1946. It received title to the boat on November 21, 1946. The boat *Trail* was constructed in 1926, was 93 feet long, 127 gross tonnage, and powered by two diesel engines. It required a crew of seven for its successful operation. Petitioner's purpose in purchasing the boat was to derive income therefrom through commercial charters for fishing parties.

The boat was entered on the books as a fixed asset in the amount of \$25,000. Improvements were made shortly after purchase (during 1946) in the amount of \$2,060.42. This amount was capitalized on Nulex's books.

An effort was made to secure a license so that the boat could be chartered. Nulex was informed by the Coast Guard that under the regulations a license could not be granted. In order to qualify, the wooden decks would have to be replaced by a steel deck. Nulex was unaware of this requirement at the time it purchased *Trail*. Petitioner was unwilling to make such extensive changes and in 1946 decided to sell *Trail*.

On December 3, 1946, the petitioner, having decided to sell the boat, paid the magazine "Yachting" \$125 for the insertion in the January 1947 issue of an advertisement of the boat for sale. Between January 1, 1947 and 1952, the boat was listed for sale with yacht brokers in Florida, Massachusetts, Connecticut, Maryland, New York, Illinois, and Washington, D. C. During 1947, \$60,000 was the asking price of the boat; by August 1948, this price had decreased to \$50,000; by April 1950, the corporation was asking \$39,500; and by July 1951, the asking price was reduced to \$35,000.

At the annual meeting of the board of directors on February 17, 1947, after discussing *Trail*, a resolution was adopted authorizing a committee "to do all things necessary in connection with the yacht 'Trail', including the expenditure of money to improve the condition of said boat with a view to selling it at a profit and to report to the Directors for appropriate action any reasonable offer that might be made for the boat." At subsequent annual meetings in February 1949, 1950, and 1951, the committee reported that work was done to keep *Trail* in A-1 shape and that none of the inquiries regarding *Trail* had materialized. Until *Trail* was sold in 1952, no offer to buy it had been received. In June 1947, a Chicago broker inquired whether *Trail* was available for charter. Nulex replied that *Trail* was not available for charter but only for sale.

From the time of purchase in 1946 until its sale in 1952, *Trail* was not chartered or rented and was never used as a pleasure craft. It did not produce any income during that period. *Trail* at all times was kept in the water and in operating condition and was not moved from Washington, D. C., except for three trips to Baltimore for painting. On one of the trips from Baltimore *Trail* was left at Annapolis, Mary-

land, for 4 months because of the possibility of a better market. *Trail* was kept in operating condition in the water rather than in drydock because petitioner felt that prospective purchasers would want to see it operate in order to determine whether they were interested in purchasing it.

The following schedule shows the purpose and amount of expenses from January 1, 1947, to March 26, 1952, incurred by Nulex in connection with *Trail*:

Year	Watchman	Repairs	Painters and paints	Miscellaneous	Total
1947.....	\$2,452.25	\$1,248.57	\$7,157.03	\$662.11	\$11,519.96
1948.....	1,859.20	253.60	4,473.97	204.29	8,801.06
1949.....	2,407.02	982.81	1,940.73	763.43	6,074.09
1950.....	1,200.00	116.83	610.90	145.35	2,073.18
1951.....	1,783.30	281.91	1,012.35	185.09	3,262.65
1952.....	647.68	169.79		231.33	998.80

These amounts were charged to expense.

As stated previously, the purchase price of *Trail* (\$25,000) and the cost of improvements in 1946 (\$2,060.42) were capitalized and entered in the ledger on a sheet named "Boat Yacht 'Trail.'" Sometime after petitioner reached the decision to sell the boat, the sheet in the ledger account was moved from the "Fixed Assets" account to the "Inventory-Current Assets" account in petitioner's accounting records.

No depreciation was ever claimed with respect to *Trail* on petitioner's income tax returns. In its 1946 income tax return petitioner reported the boat in Schedule J (depreciation) and stated, "Being repaired for charter service depreciation to be taken on basis of hours operated." On Schedule L (balance sheet) it listed *Trail* as a depreciable capital asset. On its returns for the years 1947-1951, it did not list *Trail* in Schedule J nor as a depreciable capital asset in Schedule L. It did, however, list *Trail* in Schedule L as finished goods inventory.

If depreciation had been claimed and allowed on *Trail* the petitioner would not have derived a benefit from such deduction except for the calendar year 1952.¹

On March 26, 1952, *Trail* was sold for \$18,000. On page 1, line 1, of petitioner's 1952 return, the sales price of \$18,000 was reported as gross sales, and on Schedule A of said return the cost of goods sold showed the following information:

Inventory at beginning of year.....	\$27,060.42
Salaries and wages.....	799.48
Other costs.....	1,878.81
Cost of goods sold.....	29,738.71

¹The petitioner reported no gross income for 1946 and gross income (from salvage) in the amount of \$35.55 in 1947. On May 19, 1948, petitioner commenced to earn income in the form of commissions as a manufacturer's representative.

Cost of goods sold in the amount of \$29,738.71 was reported on page 1, line 2, of the petitioner's 1952 return and that amount was subtracted from reported gross sales of \$18,000 received from the sale of the boat, thus reflecting a loss of \$11,738.71.

In the notice of deficiency respondent determined that *Trail* was depreciable property. Respondent further determined that *Trail* had an estimated useful life of 15 years when acquired by the corporation on November 21, 1946. Depreciation allowable on *Trail* as computed by the Commissioner for the period November 21, 1946, to March 26, 1952, is as follows:

Year	Allowed	Allowable
1946.....	None	\$152.34
1947.....	None	1,804.08
1948.....	None	1,804.08
1949.....	None	1,804.08
1950.....	None	1,804.08
1951.....	None	1,804.08
1952.....	None	451.02
Total.....		9,621.76

In his notice of deficiency the respondent added \$9,621.76 to petitioner's income (i. e., composed of a disallowance of \$9,060.42 of the \$11,738.71² loss claimed and a gain of \$561.34). The additional income was computed as follows:

(a) The boat sold by you in the year 1952 was a depreciable asset and its cost has, therefore, been adjusted for depreciation incurred from the years 1946 to 1952, inclusive.	
Cost, November 21, 1946.....	\$25,000.00
Improvements.....	2,060.42
Total cost.....	27,060.42
Depreciation allowable 1946-1952.....	9,621.76
Adjusted basis.....	17,438.66
Selling price, March 26, 1952.....	18,000.00
Long-term capital gain.....	561.34
Total cost.....	27,060.42
Selling price.....	18,000.00
Loss claimed per return.....	9,060.42
Gain corrected above.....	561.34
Adjustment to income.....	9,621.76

Trail, during all of the years in which petitioner held it (1946-1952), was not property used in trade or business. *Trail* at the time

²Respondent allowed deductions for the "salaries and wages" and "other costs" in the respective amounts of \$799.48 and \$1,878.81 shown as part of cost of goods sold on peti-

of its sale in 1952 was property; but was not stock in trade of Nulex, nor property which would properly be included in its inventory, nor property held by Nulex primarily for sale to customers in the ordinary course of trade or business.

OPINION.

BLACK, *Judge*: Petitioner was formed in 1943 to engage in the oil and gas business but in 1946 was practically dormant. In 1946, it purchased the boat *Trail* for the purpose of entering into the commercial charter business. Shortly after the purchase it learned that it could not secure a license to operate *Trail* as a commercial charter vessel without extensive alterations which it was unwilling to make. Petitioner thereupon decided to sell the boat. It, however, was not able to sell *Trail* until 1952. Petitioner originally carried the boat on its books as a depreciable capital asset but carried it as inventory after the decision to sell was made. It originally intended to depreciate the boat on an hours-operated basis but since it was never used³ and since it never earned any income, no depreciation deductions were ever claimed. In 1952, it sold *Trail* for \$18,000 and claimed a loss on the sale in the amount of \$9,060.42, which represents the difference between the selling price and the purchase price of \$25,000 plus capital improvements of \$2,060.42.

The respondent disallowed the loss and determined a long-term capital gain of \$561.34 on the sale. The determination was based on respondent's treatment of the boat as "property used in trade or business." He, therefore, reduced the basis by depreciation allowable in the amount of \$9,621.76 computed on a 15-year straight-line basis.

The first issue involves a determination of the amount of gain or loss on the sale of *Trail* in 1952. Section 111 (a), I. R. C. 1939,⁴ provides that the gain or loss on the disposition of property shall be the difference between the amount realized and the adjusted basis provided in section 113 (b). Section 113 (b) provides that the basis shall be the unadjusted basis as determined under section 113 (a) except for certain enumerated adjustments. There is no dispute over the amount realized or the unadjusted basis; the dispute is whether the adjustment set forth in section 113 (b) (1) (B) should be made. Section 113 (b) (1) (B) provides, *inter alia*, that adjustment shall be made for depreciation to the extent allowed as deductions but not less than the amount allowable as deductions.

No depreciation was claimed or allowed; the question is whether any depreciation was allowable. This question depends on whether *Trail* was used in trade or business within the meaning of section 23 (1), which provides for the depreciation deductions. Respondent

³ Although it never used for commercial purposes it was moved from Washington, D. C., where it was anchored, to Baltimore three times for repainting.

⁴ All section references are to the Internal Revenue Code of 1939.

contends that *Trail* was used in trade or business and therefore subject to the allowance for depreciation, while petitioner contends that although *Trail* was purchased with the intent to use it in trade or business it was never so used but was only held for sale.

"Used in trade or business" means devoted to trade or business. *Kittredge v. Commissioner*, 88 F. 2d 632 (C. A. 2, 1937), affirming a Memorandum Opinion of this Court. Property once used in trade or business but idled remains in such use unless withdrawn for business purposes or abandoned. *Kittredge v. Commissioner, supra*.

Here, petitioner was not engaged in any trade or business at the time it purchased *Trail*. Petitioner intended to enter the commercial charter business when it purchased *Trail* but it never entered that business for reasons explained in our Findings of Fact. It seems clear, therefore, that *Trail* was never devoted to trade or business. Petitioner did enter the business of being a manufacturer's representative in 1948 but *Trail* had no connection with and was not devoted to that business. Since *Trail* was not devoted to trade or business, it was not used in trade or business within the meaning of section 23 (1) and, therefore, no depreciation was allowable with regard to it. We agree with petitioner that the basis of *Trail* was \$27,060.42 and that it sustained a loss of \$9,060.42 on its sale in 1952.

But it does not follow that petitioner's treatment of the loss was correct. Petitioner deducted the loss in full and contends that it is deductible under section 23 (f) which allows a corporation a deduction for uncompensated losses. It seems to us, however, that the loss in question is deductible only under section 23 (g) which provides that deduction for capital losses shall be allowed to the extent provided in section 117. Section 117 (d) provides that in the case of a corporation, losses from the sale or exchange of a capital asset shall be allowed only to the extent of gain from such sales and exchanges. Section 117 (a) (1) defines a capital asset as property held by the taxpayer (whether or not connected with trade or business) but does not include, *inter alia*:

(A) stock in trade of the taxpayer or other property of a kind which would properly be included in the inventory of the taxpayer if on hand at the close of the taxable year, or property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business;

Petitioner contends that *Trail* falls within the above-quoted exception. Undoubtedly *Trail* was held for sale; but it is clear that it was not so held in the ordinary course of its trade or business. *Trail* was the only boat petitioner owned, bought, or sold. It never attempted to buy and sell any others. Petitioner's business consisted of being a manufacturer's representative. *Trail* was not connected with nor held for sale in the ordinary course of that business. The fact that *Trail* was carried on its books in inventory does not prove

that it was an inventory item. Cf. *Sitterding v. Commissioner*, 80 F. 2d 939, 941 (C. A. 4, 1936). Petitioner was merely liquidating a capital asset which it could not use. *Trail*, therefore, cannot be considered as stock in trade or inventory and it cannot be considered to have been held for sale in the ordinary course of trade or business.

The allowable deduction under section 23 (g), if any, can be determined under Rule 50, together with the other items agreed upon in the stipulation of facts filed by the parties.

Reviewed by the Court.

Decision will be entered under Rule 50.

MURDOCK, WITHEY, FISHER, and FORRESTER, JJ., dissent.

ESTATE OF ELLIS BAKER, DECEASED, MORRIS A. AND MORTON E. BAKER, EXECUTORS, PETITIONER, v. COMMISSIONER OF INTERNAL REVENUE, RESPONDENT.

Docket No. 63471. Filed June 30, 1958.

From 1918 to 1942, proceeds of insurance were includible by statute in the estate of a deceased insured "to the extent * * * receivable by all other beneficiaries as insurance under policies taken out by the decedent upon his own life." Regulations interpreting this provision were in constant flux during that period. In January of 1941, a Treasury decision was promulgated, setting forth a proportionate rule for inclusion, based on payment of premiums by decedents. Such a test, or tests very similar thereto, had been set forth by earlier regulations, but abandoned in 1937. In December of 1941 petitioner assigned to his children two insurance policies originally procured in 1926, and upon which he had up to then paid all premiums. The attendant circumstances were such as to require eventual inclusion of at least a part of the insurance proceeds in the estate, according to the foregoing Treasury decision. Late in 1942, the Revenue Act of 1942 adopted, *inter alia*, the test set forth in the Treasury decision. After the assignment, the assignees paid all premiums. Decedent died in 1952. *Held*:

1. The tax in question is an excise, and does not constitute a direct tax on property, unapportioned in violation of Article I, sections 2 and 9, of the Constitution of the United States. *Estate of Clarence H. Loeb*, 29 T. C. 22 on appeal (C. A. 2), followed. *Kohl v. United States*, 226 F. 2d 331 (C. A. 7), rejected.

2. Life insurance is unique. It differs from other types of property and has some inherently testamentary qualities even though the subject of an *inter vivos* transfer, where gratuitously assigned to the natural objects of one's bounty. Insurance proceeds may validly be treated differently for tax purposes from other classes of property. Section 811 (g) (2) (A) is not unconstitutional and void as constituting an arbitrary and unreasonable discrimination against life insurance.

3. The Treasury decision constituted a reasonable interpretation

policies were first taken out. Since prior law, as so interpreted, required inclusion of that portion of the proceeds determined by respondent to be here includible in the estate, section 811 (g) (2) (A) is not retroactive in effect. If retroactive, the foregoing Treasury decision and earlier regulations gave decedent sufficient notice to satisfy requirements of due process of law.

C. Gordon Haines, Esq., for the petitioner.

Joseph N. Ingolia, Esq., for the respondent.

FORRESTER, Judge: The Commissioner has determined a deficiency in the amount of \$10,053.54 in the estate tax of the estate of Ellis Baker, deceased. The sole issue remaining herein is whether the Commissioner erred in determining that a pro rata part of the proceeds of certain policies of insurance was includible in computing the gross estate for estate tax purposes. In view of the disposition by agreement between the parties of various other matters, a recomputation under Rule 50 will be required.

FINDINGS OF FACT.

Some of the facts have been stipulated and are so found.

Ellis Baker (hereinafter sometimes called the decedent) died on February 13, 1952, a resident of Baltimore, Maryland. Petitioners, decedent's sons, are the executors of his estate.

On June 29, 1926, and on July 15, 1926, the Union Central Life Insurance Company of Cincinnati, Ohio, issued to decedent policies of insurance on his life in the respective amounts of \$4,000 and \$40,000. Decedent made all payments of premiums to and including those due on the 1941 anniversary date of each policy. Such payments constituted 16 out of a total of 26 annual payments on each policy between its inception and the date of decedent's death.

On December 8, 1941, decedent gratuitously assigned the foregoing policies to his three children. The insurer was notified and changed its records accordingly.

Decedent filed a gift tax return for the calendar year 1941, including values attributed to the foregoing policies in respect and at the time of the above transaction, but, using part of his specific exemption, was neither required to nor did pay any gift tax. The assignees filed information gift tax returns for the same year and the two policies assigned as above described were not included in the estate tax return filed for decedent's estate.

Decedent paid no premiums on the assigned policies after the above 1941 assignment; all premiums from that time forward were paid by the assignees.

A part of the deficiency set out in the Commissioner's May 9, 1956, notice of deficiency to the petitioners resulted from his inclusion in the

corporation, have executed closing agreements under which each of them agrees to be bound by our redetermination of the investment tax credit adjustment at issue herein. References to petitioners throughout this opinion are references to Mr. Darrah's six business associates, enumerated above, and Mr. George R. Hess who is identified below.

The record does not fully reveal the family relationships existing among petitioners and among the other individuals referred to herein. However, it appears that Mr. James H. Hess, Mr. George R. Hess, and Mr. Dick Hess are brothers.

In pursuit of his idea, Mr. Darrah obtained a quotation dated April 14, 1980, from Continental-Emsco Co. of Tulsa, Oklahoma, for the purchase of a drilling rig and related drilling equipment. The quotation stated that the aggregate purchase price of the rig would be \$1,084,375.03. Continental-Emsco revised its quotation on or about June 12, 1980, but the record does not include a copy of the revised quote. On June 12, 1980, after conferring with his business associates, Mr. Darrah placed an order with Continental-Emsco Co. for the construction and delivery of a drilling rig meeting the specifications set forth in the quotation dated June 12, 1980.

By letter dated July 22, 1980, Mr. Darrah wrote to his attorney, Spencer L. DePew, Esquire, outlining the general plan under which he and his business associates contemplated acquiring and using the drilling rig. He asked his attorney to prepare "rough drafts" of certain documents. According to Mr. Darrah's letter, the rig would be purchased in part by an individual, Mr. George R. Hess, who would acquire approximately \$750,000 worth of the equipment and, in part, by a joint venture which would acquire the remainder of the property. In his letter, Mr. Darrah asks his attorney to prepare two leases for the equipment. The terms of both leases were to be "7 years". Under the first, Mr. Hess would lease his equipment to a drilling company "at a fixed rate of interest" with no principal reduction. Mr. Darrah's letter instructs his attorney to set the original

rate of interest at 8 percent. Under the second lease, the joint venture would lease its equipment to the drilling company but, according to the letter, this lease "should be designed to allow for more realistic payments" and should "carry some sort of buy-back provision" at the end of the 7-year term.

During the latter part of 1980, Mr. George Hess purchased \$382,697.50 worth of drilling equipment. He purchased the equipment for use by the Mallard Joint Venture but did not contribute it to the joint venture until 1981. He did not place the equipment in service in 1980. Nevertheless, Mr. George Hess included the \$382,697.50 worth of drilling equipment on a Form 3468, Computation of Investment Credit, which was attached to his individual income tax return for 1980.

Petitioners entered into a joint venture agreement dated November 1, 1980, generally along the lines outlined in Mr. Darrah's letter. Unlike the initial plan, however, Mr. George Hess became a member of the joint venture and eventually increased his investment in the partnership to \$900,000.

The terms of the joint venture agreement create a Kansas general partnership under the name Mallard Joint Venture. The agreement states that the purpose of the joint venture is the "acquisition, maintenance and operation of a drilling rig, substructure and components to be leased to third parties for drilling operations."

The agreement provides that the ownership interest of each partner in the joint venture is set forth "on the attached Exhibit 'A'". No such exhibit is attached to the version of the agreement included in the record of this case. The parties agree that the ownership interest of the partners varied from time to time during the first several months after the joint venture was formed due to the timing of each partner's capital contributions to the joint venture. As of approximately June 15, 1981, the capital contributed by each partner and his ownership interest in the joint venture are as follows:

George R. Hess	\$ 900,000.00	65.00%
Dick Hess	96,923.07	7.00%
James H. Hess	96,923.07	7.00%
John J. Darrah	96,923.07	7.00%
Thomas J. Darrah	24,230.77	1.75%
David L. Murfin	72,692.30	5.25%
Innes Phillips	48,461.55	3.50%
Sutherland Building Materials, Inc.	48,461.55	3.50%
	<u>\$1,384,615.38</u>	<u>100.00%</u>

Paragraph III of the agreement provides:

CONDUCT OF JOINT VENTURE

All decisions pertaining to the management of the affairs of the joint venture, including but not limited to decisions in respect to operation of the drilling equipment, leasing, professional assistance and loans from financial institutions and additional capital contributions, shall be determined by a vote of the parties with the decision of ninety percent (90%) in

interest in the Joint Venture controlling.

On or about November 3, 1980, Mr. John Darrah, Jr. organized Mallard Drilling Co., Inc., a Kansas corporation, the drilling company contemplated by Mr. Darrah's letter of July 22, 1980. We refer to this corporation as Mallard Drilling or the drilling company. Mr. Darrah and his business associates eventually subscribed to the stock of Mallard Drilling in the following amounts:

	Shares	Ownership	Subscription Date
John Darrah, Jr.	10,000	20%	2/02/81
Dick Hess	10,000	20%	1/27/81
James Hess	10,000	20%	1/27/81
David L. Murfin	7,500	15%	2/02/81
Walter I. Phillips	5,000	10%	1/23/81
Sutherland Building Materials, Inc.	5,000	10%	Unknown
Thomas J. Darrah	2,500	5%	2/02/81
	50,000	100%	

Mr. Darrah acted as president of the drilling company and Mr. James Hess acted as its vice president. Petitioner George Hess did not acquire any stock in the drilling company. He was the only partner in the joint venture who did not.

Petitioners George Hess, Dick Hess, James Hess, and David Murfin, acting on behalf of the joint venture, executed a lease dated November 4, 1980, (hereinafter the November lease) in which the joint venture, as "Lessor," undertook to lease "a drilling rig with all components and all other tangible personal property in connection therewith" to the drilling company, as "Lessee". Mr. John Darrah executed the lease, on behalf of the drilling company as its president and his signature was attested to by Mr. Walter Innes Phillips, as secretary.

The record does not establish the precise date on which the November lease was executed. It appears that both the November lease and the joint venture agreement, described above, were executed sometime after March 9, 1981.

The November lease sets forth the term of the lease and the rent to be paid during that term in the following provisions:

2. TERM. The term of this lease shall be for ten (10) years, effective upon delivery of the leased equipment in sufficient quantity and condition to commence drilling operations. Lessee shall have the option at the end of said ten year period,

or before, to purchase the leased equipment from Lessor according to the terms contained in any agreement reached by the parties.

3. RENT. Rental shall be for the term and at rates as follows:

(a) For the first three (3) years of this Lease, Lessee agrees to pay to Lessor for use of said equipment an annual rental in an amount equal to eight percent (8%) of the invoice cost of said equipment. *** Said rental shall be paid in equal monthly installments and shall be payable at the office of Lessor at the close of each month or within ten (10) days thereafter. Rental will be invoiced to Lessee on a monthly basis.

The November lease further provides that the drilling company, the lessee, is responsible for maintaining the equipment and for any related expense of maintenance. It also provides that the drilling company is required to carry comprehensive insurance coverage against the loss, theft, damage, or destruction of the equipment, naming the lessor as the insured and loss payee. The lease further provides that the lessee is to carry liability insurance covering losses that occur as a result of the operation of the rig.

Sometime thereafter, petitioners George Hess, Dick Hess, and James Hess, acting on behalf of the joint venture, executed a second lease document, dated May 1, 1981 (hereinafter the May lease), under which the joint venture, as "Lessor", agreed to

lease "a drilling rig with all components and all other tangible personal property" to the drilling company, as "Lessee". Mr. Darrah executed the May lease as president. The record does not establish the date on which this lease was executed.

The May lease was drafted by Mr. Don Reichenberger, a certified public accountant. Mr. Reichenberger described himself as "the accountant for Hess Oil Company and the Hess family." Significantly, the May lease changes the length of the arrangement and the monthly rent to be paid to the following:

2. **TERM.** The term of this lease shall be for two (2) years, effective upon delivery of the leased equipment in sufficient quantity and condition to commence drilling operations.

ling operations.

3. **RENT.** Rental shall be for the term and at rates as follows: \$11,066.67 per month for a total of \$132,800.04 per year.

Unlike the November lease, the May lease provides that the joint venture, the lessor, "shall provide up to a maximum of \$1,000 per month for preventive maintenance expense". Similarly, unlike the November lease, the May lease requires the joint venture, the lessor, to provide and maintain comprehensive insurance coverage against loss, theft, damage, or destruction of the leased equipment.

The joint venture determined the monthly rent payment on the basis of the following computation:

Mallard Joint Venture
Computation of Lease Payments

Investment:	
January, 1981	\$ 440,255.37
February, 1981	36,000.00
March, 1981	33,264.00
April, 1981	90,605.72
May, 1981 (Est)	400,000.00
June, 1981 (Est)	400,000.00
Total invested	1,400,125.09
Multiplied by	8%
Net annual return	112,010.01
Divided by	12
Net Lease payments	9,334.17
Plus:	
Maintenance	1,000.00
Insurance	732.50
Lease Payments	\$ 11,066.67

Thus, the monthly rent under the May lease included \$1,732.50 per month to compensate the lessor for maintenance and insurance costs.

The useful life of the drilling rig and related drilling equipment which the joint venture acquired was 6 years. The rig was delivered by the manufacturer to Mallard Joint Venture in May of 1981 and was the sole asset of the joint venture. It was first placed in service on or about May 12, 1981, when it was used to drill a well.

Initially, Mallard Drilling acquired insurance coverage for all risks of physical loss or damage to the leased drilling rig and related equipment. The first insurance policy on the rig was issued by Swett & Crawford in the name "Mallard Drilling

Company". The premium for the policy was \$6,561 and the policy period was from May 1, 1981, to January 26, 1982. On or about June 11, 1981, Swett & Crawford issued an endorsement to the policy which stated, "the correct name of the assured is: 'Mallard Drilling Company, Inc.'"

On March 8, 1982, St. Paul Surplus Lines Insurance Co. issued a policy insuring against all risks of direct physical loss of or damages to the drilling rig, up to \$1,384,000, per occurrence. The policy was issued to "Mallard Joint Venture", effective January 26, 1982.

Mallard Drilling made the following rent payments to Mallard Joint Venture during the period May 1, 1981, through June 30, 1982:

Date	Amount	Rental Period
6/26/81	\$12,494.28	:
9/01/81	9,250.45	:
9/30/81	18,606.76	:
11/06/81	9,300.74	:
12/30/81	32,280.21	:
6/04/82	33,200.01	January-March, 1982
6/18/82	11,066.67	April, 1982
6/29/82	22,133.34	May-June, 1982
Total	\$148,332.46	

¹ The rent payments made on 6/26/81, 9/01/81, 9/30/81, 11/06/81 and 12/30/81, cover the period of May 1981 through December 1981.

Mallard Joint Venture paid the following and related equipment during the period expenses with respect to the drilling rig May 1, 1981, through June 30, 1982:

Date	Amount	Purpose
1/23/81	\$ 36.10	Bank service charge
10/30/81	4.38	Bank service charge
12/29/81	8,000.00	Maintenance
12/29/81	6,561.00	Insurance
6/29/82	6,000.00	Maintenance
6/29/82	7,764.24	Insurance
Total	\$28,365.72	

On March 16, 1982, Mallard Drilling held a joint meeting of its board of directors and stockholders. After that meeting, Mr. John Darrah made the following note to the file:

3/16/82 Note to Mallard File
(FOR FILE ONLY)

We discussed the re-vamped JV lease between Mallard & JV. Have to have 15% expense against income to get IRS credit on investment credit. After 1 year this will meet the requirement so for that time JV pays maintenance fee and also some ins.

The joint venture's initial Federal income tax return was due to be filed on its behalf on or about March 15, 1982. The joint venture reports income and expense for Federal income tax purposes using the cash receipts and disbursements method of accounting.

On or about December 28, 1983, Mallard Joint Venture and Mallard Drilling executed another lease of the drilling rig (hereinafter the December lease) for a 2-year term beginning on May 1, 1983. The fact that the May lease had expired was called to Mr. George Hess' attention by an Internal Revenue Service agent during an audit of Mr. Hess' individual income tax return for 1981. Mr. Reichenberger first telephoned Mr. Darrah about the problem,

and Mr. Hess sent a new lease to Mr. Darrah which was to be executed by him, as president of Mallard Drilling.

OPINION

The issue in each of these consolidated cases is whether Mallard Joint Venture is eligible for investment tax credit with respect to the oil and gas drilling rig and related equipment which it placed in service in 1981 when it began leasing the rig to Mallard Drilling Co. This issue turns on whether Mallard Joint Venture qualifies under section 46(e)(3), the limitation with respect to noncorporate lessors. That section, as in effect on January 1, 1981, the beginning of the year in issue, provided as follows:

(e) Limitations with respect to certain persons.—

.....

(3) Noncorporate lessors.—A credit shall be allowed by section 38 to a person which is not a corporation with respect to property of which such person is the lessor only if—

(A) the property subject to the lease has been manufactured or produced by the lessor, or

(B) the term of the lease (taking into account options to renew) is less than 50 percent of the useful life of the property,

and for the period consisting of the first 12 months after the date on which the property is transferred to the lessee the sum of the deductions with respect to such property which are allowable to the lessor solely by reason of section 162 (other than rents and reimbursed amounts with respect to such property) exceeds 15 percent of the rental income produced by such property.

In the case of property of which a partnership is the lessor, the credit otherwise allowable under section 38 with respect to such property to any partner which is a corporation shall be allowed notwithstanding the first sentence of this paragraph. For purposes of this paragraph, an electing small business corporation (as defined in section 1371) shall be treated as a person which is not a corporation. This paragraph shall not apply with respect to any property which is treated as section 38 property by reason of section 48(a)(1)(E).

Section 46(e)(3)(B) was amended by section 211(d) of the Economic Recovery Tax Act of 1981, Pub. L. 97-34, 95 Stat. 172, 228, which added the following new sentence to the end of the provision: "For purposes of subparagraph (B), in the case of any recovery property (within the meaning of section 168), the useful life shall be the present class life for such property (as defined in section 168(g)(2))". The amendment applied to leases entered into after June 25, 1981. Economic Recovery Tax Act of 1981, Pub. L. 97-34, sec. 211(i)(4), 95 Stat. 172, 235. Since the parties agree that the useful life of the subject drilling rig and related equipment is 6 years, we are not called upon to decide whether the above amendment applies in this case.

We note that section 46(e)(3) was also amended by section 5(a)(6) of the Subchapter S Revision Act of 1982, Pub. L. 97-354, 96 Stat. 1669, 1692, and by section 1002(a)(15) of the Technical and Miscellaneous Revenue Act of 1988, Pub. L. 100-647, 102 Stat. 3342, 3355. Finally, in 1990, section 46 was amended and section 46(e) was removed from the Code by section 11813 of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508, 104 Stat. 1388, 1388-536.

In this case, petitioners bear the burden of proving that Mallard Joint Venture qualifies under section 46(e)(3) and is allowed the investment tax credit which it reported for 1981. Rule 142, Tax Court Rules of Practice and Procedure. Accordingly, in this case, petitioners bear the burden of proving that the term of the lease between the joint venture and the drilling company was less than 50 percent of the

useful life of the drilling rig and related property. E.g., *Hauptli v. Commissioner*, 951 F.2d 1193 [69 AFTR2d 92-503] (10th Cir. 1991), affg. TC Memo. 1991-72 [¶91,072 TC Memo]; *Schumacher v. United States*, 931 F.2d 650, 653 [67 AFTR2d 91-939] (10th Cir. 1991); *Borchers v. Commissioner*, 95 TC 82 (1990), affd. 943 F.2d 22 [68 AFTR2d 91-5439] (8th Cir. 1991). This is one of the two requirements of section 46(e)(3)(B) which respondent determined had not been met.

Petitioners must also prove that the joint venture's business deductions exceeded 15 percent of the rental income during the first 12 months after the rig was transferred to the drilling company. See *Bloomberg v. Commissioner*, 74 TC 1368, 1372-1373 (1980). This is the second requirement of section 46(e)(3)(B) which respondent determined had not been met.

It is well settled that for purposes of the so-called 50-percent test of section 46(e)(3)(B), the length of the lease must be determined at the time the lease or rental begins. *Hauptli v. Commissioner*, supra; *Schumacher v. United States*, supra at 653; *Hoisington v. Commissioner*, 833 F.2d 1398, 1404 [60 AFTR2d 87-6091] (10th Cir. 1987), affg. TC Memo. 1984-375 [¶84,375 PH Memo TC]; *Hokanson v. Commissioner*, 730 F.2d 1245, 1248 [53 AFTR2d 84-763] (9th Cir. 1984), affg. TC Memo. 1982-414 [¶82,414 PH Memo TC]. To satisfy the burden of proof under that test, a taxpayer must prove that, at the beginning of the leasing arrangement, the parties to the lease had a fixed intention that the lease would terminate before 50-percent of the useful life of the asset had expired. *Hauptli v. Commissioner*, supra; *Schumacher v. United States*, supra at 653. We find that petitioners failed to meet their burden of proof under the so-called 50 percent test of section 46(e)(3)(B). They did not prove that, at the beginning of the leasing arrangement, the term of the lease was less than 50 percent of the useful life of the property. For that reason alone, Mallard Joint Venture is not allowed investment tax credit with respect to the subject drilling rig and we need not address the other issues raised by respondent. See *Hauptli v. Commissioner*, supra; *Schumacher v. United States*, supra.

To prove the term of the leasing arrangement between the joint venture and the drilling company, petitioners introduced into evidence the May lease and the testimony of Mr. Don Reichenberger, a certified public accountant, who was em-

ployed by Hess Oil Co. and certain members of the Hess family. As mentioned above, the May lease provides that the term of the lease is "two (2) years". Mr. Reichenberger testified that the May lease was "the lease under which the first well was drilled in May of 1981". He testified that all of the rent paid by the drilling company was the rent specified by the May lease, \$11,066.67 per month. He stated that the November lease, which provides a term of 10 years, "was mainly a planning tool" and that the November lease had been discarded before the first well was drilled.

Mr. Reichenberger was the only witness to testify at trial. Based solely upon his testimony, petitioners argue, "the witness' unrebutted testimony is that the first well was drilled in the middle of May, 1981, under the May lease, and that the November document was never used by the parties as a working lease". Based on the fact that the stated term in the May lease is 2 years, petitioners argue that the term of the lease is less than 50 percent of the useful life of the property (i.e. less than 3 years), and they argue that respondent "has failed to point to any evidence that establishes that the lease of the drilling equipment dated May 1, 1981, for a term of two years, was actually of indefinite duration."

We listened closely to Mr. Reichenberger's testimony that the May lease was in place at the commencement of the leasing transaction and we observed his demeanor. We found his testimony to be vague and conclusory in nature, and we do not credit his testimony on that point. For example, he offered no explanation for the fact that the November lease had been formally executed, on behalf of the joint venture, by George R. Hess, Dick Hess, James H. Hess, and David Murfin, and, on behalf of

the drilling company, by John J. Darrah, Jr., its president, whose signature was also attested to by Walter Innes Phillips, acting as secretary. It would seem unusual for a "planning tool" to have been formally executed in that fashion.

More significantly, Mr. Reichenberger was unable to explain the disparity between the monthly rental payments booked by the joint venture and the payments called for under the May lease. At one point, in response to questions from respondent's counsel, he made the offhand statement, "I don't have my work sheets with me here". At another point, he stated, "Well, I would have to see my work-sheets". Later, he refused to answer respondent's counsel with the statement, "I don't have a calculator".

There is nothing in the record other than Mr. Reichenberger's testimony to prove that the May lease, as opposed to the November lease, governed the transaction between the joint venture and drilling company at the time the rig was placed in service. In fact, what evidence there is supports respondent's position that the November lease was actually used by the joint venture for 7 or 8 months and that the May lease was drawn up, as an afterthought, in an attempt to claim eligibility for investment tax credit on the drilling rig.

For example, we start with the point that Mr. Reichenberger was not able to explain to respondent's counsel, the rental payments received by the joint venture during 1981. The entries in the joint venture's general ledger suggest that the monthly rent payments made by the drilling company from May through November of 1981 were computed under the November lease. According to the general ledger, the following rental payments were booked during 1981:

Rent	DEP	6/26/81	\$12,494.28
July Rent	ADJ	9/01/81	9,250.45
September Rent	ADJ	9/30/81	9,303.38
August Rent	ADJ	9/30/81	9,303.38
0	DEP	11/06/81	9,300.74
0	DEP	12/30/81	32,280.21
			\$81,932.44

Under the May lease, each monthly payment should have been \$11,066.67, rather than the above amounts, and the total rent for 8 months of 1981 should have been \$88,533.36, rather than \$81,932.44, the aggregate amount booked in the general ledger for 1981.

Furthermore, under the November lease,

the annual rent for the rig is stated to be "equal to eight percent (8%) of the invoice cost" of the equipment. We note that the rental payment booked as a deposit on November 6, 1981, \$9,300.74, appears to have been computed for the month of October 1981, as follows:

General ledger for December	
1981—equipment entries:	
Equipment	\$1,180,453.45
Equipment	11,483.83
Equipment	140,800.85
Equipment	3,905.04
Equipment	39,847.92
	1,376,491.09
Reverse Oct. entries:	
10/19/81	14,620.23
10/26/81	4,000.00
	1,395,111.32
Invoice cost of equipment	
at beginning of October 1981:	8.00%
	111,608.91
	÷ 12
Rental payment shown	
as deposit on 11/06/81:	\$ 9,300.74

Therefore, contrary to Mr. Reichenberger's testimony, it appears that the rental payment booked to the joint venture's general ledger as a deposit on November 6, 1981, was computed under the November lease. We infer from this that the November lease was still being used by the parties at that time.

A second difference between the two leases is the fact that the November lease provides that the lessee, the drilling company, "shall provide and maintain comprehensive insurance coverage against loss, theft, damage, or destruction of the leased equipment, naming Lesser as the insured and loss payee". The May lease, on the other hand, requires the lessor, the joint venture, to provide such coverage.

Nevertheless, contrary to the provisions of the May lease and consistent with the provisions of the November lease, the lessee, the drilling company, obtained comprehensive insurance coverage for the drilling rig and related equipment for the period beginning May 1, 1981, and ending January 26, 1982. An endorsement to the policy covering that period was issued on June 11, 1981, and states, "that effective from the date of inception of this policy May 1, 1981, the correct name of the assured is: 'Mallard Drilling Company, Inc.'". We note that it was not until March 8, 1982, that the lessor, Mallard Joint Venture, obtained insurance on the drilling rig and related equipment, as contemplated by the May lease.

Based upon the above, we find that the November lease governed the subject leasing transaction between the joint venture and the drilling company when the drilling rig was placed in service in May of 1981 and continued to govern the transactions until sometime after November 6, 1981. Thus, petitioners have failed to prove, as required by section 46(e)(3)(B), that at the beginning of the leasing arrangement the parties had a fixed intention to terminate the lease before 50 percent of the useful life of the drilling equipment had expired. See *Hauptli v. Commissioner*, 951 F.2d 1193 [69 AFTR2d 92-503] (10th Cir. 1991); *Schumacher v. United States*, 931 F.2d at 653. Accordingly, we sustain respondent's determination that Mallard Joint Venture is not eligible for investment tax credit on the subject drilling rig and related equipment placed in service during the year 1981.

Based upon concessions by the parties,
Decisions will be entered under Rule 155.

[¶ 92,176] TC Memo 1992-176. DENNIS J. KOBZA AND DORIS R. KOBZA. Docket No. 8845-90. 3-24-92. Opinion by WRIGHT, J. Years 1983-1985. Deficiencies redetermined.

1. Activities not for profit. Investment tax credit denied for solar power system installed in taxpayer's residence. Although taxpayer supplied electricity to a local utility co., he didn't have required profit objective to qualify for the credit. Taxpayer

however, that the profit projections were prepared just a few months prior to trial. Therefore, petitioners did not evaluate or rely on the profit projections prepared by Priest when deciding to install the PV system. Prior to installing the PV system and after placing the system in operation, petitioners never spoke with any person who operated a similar activity for profit. Petitioners had no expectation that the PV system would appreciate in value. Petitioner wife testified that due to advancing technology, their PV system most likely decreased in value. Petitioners did not maintain a set of records in connection with the energy-generating activity.

In 1983, petitioner wife prepared petitioners' Federal income tax return. Petitioner wife had a significant amount of business experience emanating from her duties as corporate secretary-treasurer of her husband's architectural business and as a bookkeeper for several partnerships in which petitioners were involved.

For taxable year 1983, petitioners claimed an investment tax credit of \$8,979. Petitioners' Form 3468 listed the basis of property qualifying for the investment credit as \$89,787 (10 percent of \$89,787 = \$8,979). Of the \$89,787 of basis, \$63,619 represented the cost of the PV system. Approximately \$8,000 represented the cost of installing the PV system. The balance of the \$89,787 basis used to compute the investment tax credit purportedly represented qualifying property from one of petitioners' partnerships. Respondent disallowed the entire investment tax credit in her notice of deficiency. For the portion of the investment tax credit unrelated to the PV system, petitioners produced no documentation to substantiate the type of property or the cost of the property.

At the end of 1983, petitioners failed to read meter No. 1, and reported no income on Schedule C. However, petitioners claimed business deductions on Schedule C of \$10,841, resulting in a net loss of \$10,841. In 1983, petitioners had Form W-2 wage income of \$254,777.

In 1984, petitioners' Federal income tax return was prepared by their CPA, Ben Priest. In 1984, petitioners reported income from the PV system of \$551, and a depreciation expense deduction of \$12,070, resulting in a Schedule C net loss of \$11,519. During that same year, petitioners had Form W-2 wage income of \$310,000.

Priest also prepared petitioners' 1985 income tax return. In 1985, petitioner reported income from the PV system of \$247, and a depreciation expense deduction of \$11,521, resulting in a Schedule C net

loss of \$11,274. In that same year petitioners had Form W-2 wage income of \$402,222. After 1985, Priest advised petitioners to discontinue treating the energy-generating activity as a business for tax purposes.

OPINION

Petitioners contend that they are entitled to the deductions claimed on Schedule C for taxable years 1983, 1984, and 1985, and to the investment tax credit claimed in 1983 because they were engaged in the trade or business of selling electricity with the actual and honest objective of making a profit.

Respondent argues that the deductions and investment tax credit relating to the PV system should be disallowed pursuant to sections 183 and 262 because petitioners did not have a profit objective, and the deductions in connection with the activity represent deductions for personal living expenses. Respondent further contends that the portion of the investment tax credit unrelated to the PV system is unsubstantiated and should be disallowed.

Section 162 allows a deduction for ordinary and necessary business expenses incurred in carrying on a trade or business. Petitioners are entitled to the deductions claimed for depreciation only if the PV system was used in a trade or business or held for the production of income. Sec. 167(a). An investment credit is allowable only if the PV system is depreciable. Sec. 48(a)(1).

Property is used in a trade or business, or held for the production of income, only if the taxpayer has an actual and honest profit objective. *Hirsch v. Commissioner*, 315 F.2d 731 [11 AFTR2d 1156] (9th Cir. 1963), affg. TC Memo. 1961-256 [¶161,256 PH Memo TC]; *Levy v. Commissioner*, 91 TC 838, 871 (1988); *Dreicer v. Commissioner*, 78 TC 642, 645 (1982), affd. without opinion 702 F.2d 1205 [unpublished order dated 2-22-83] (D.C. Cir. 1983).

Section 183(a) provides the general rule that if an individual's activity is not engaged in for profit, no deduction attributable to such activity will be allowed except as otherwise provided in that section. Profit means economic profit, independent of tax savings. *Surloff v. Commissioner*, 81 TC 210, 232-233 (1983). While there need not be a reasonable expectation of profit, the activity must have been entered into with the objective of making a profit. *Fox v. Commissioner*, 80 TC 972 (1983), affd. without published opinion 742 F.2d 1441 (2d Cir. 1984), affd. sub nom. *Barnard v.*

missioner, docket Nos. 29886-86 and 29887-86, we warned petitioners that they must be prepared to present some facts to substantiate their claims, or face the imposition of a penalty. Petitioners have ignored our warning. Accordingly, we will grant respondent's motion and require petitioners to pay a penalty to the United States in the amount of \$1,000.

To reflect the foregoing,

An appropriate order will be issued on respondent's motion for damages.

Decision will be entered under Rule 155.

[¶ 92,175] TC Memo 1992-175. **WALTER I. AND PATRICIA A. PHILLIPS, ET AL.**¹ Docket Nos. 20452-87, 20453-87, 20459-87, 20460-87, 20461-87, 20520-87, 15261-88. 3-24-92. Opinion by WHALEN, J. Years 1979-1982. Decision for Commissioner.

1. Investment credit. Partners denied investment credit for oil and gas drilling

rig that partnership leased to related drilling company. They did not show that term of lease was less than 50% of rig's useful life. Parties to lease acted as though controlled by initial lease which did not have adequately limited term despite execution of second agreement which did. *Reference:* Fed. 2nd ¶465.08(45). Former IRC §46.

Official Report

John L. Brennan and Patrick J. Regan, for petitioners.

C. Glenn McLaughlin and David L. Jordan, for respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

WHALEN, *Judge:* Respondent determined the following deficiencies in petitioners' Federal income tax:

Petitioners	Year	Deficiency	Residence
Walter I. and Patricia A. Phillips	1982	\$ 3,396.43	Wichita, Kansas
James H. and Constance M. Hess	1981	8,912.89	McPherson, Kansas
George R. and Evaline Hess	1980	45,959.83	McPherson, Kansas
	1981	35,584.92	McPherson, Kansas
Dick Hess and Estate of Lou Ann Hess, deceased	1981	1,042.80	McPherson, Kansas
David L. and Janet K. Murfin	1979	8,316.07	Wichita, Kansas
Thomas J. and Mary Jill Darrah	1981	3,265.00	Longmont, Colorado

Each of the above petitioners reported, on his or her Federal income tax return for 1981, a share of partnership items from Mallard Joint Venture, a Kansas partnership.

After concessions, the sole issue for decision is whether Mallard Joint Venture is allowed investment tax credit on an oil and gas drilling rig and related equipment which was acquired for lease. This issue turns on whether Mallard Joint Venture meets the limitation imposed on noncorporate lessors by section 46(e)(3) with respect to the subject drilling equipment. All section references are to the Internal Revenue Code as amended unless otherwise stated.

FINDINGS OF FACT

Some of the facts have been stipulated by the parties and are so found. The stipulation of facts filed by the parties and attached exhibits are incorporated herein by this reference. The residence of each of the

petitioners in these consolidated cases, at the time his or her petition was filed, is set out in the above schedule.

During 1980, there was a shortage of oil and gas drilling equipment. This prompted Mr. John Jay Darrah, Jr., who is not a party to any of the subject cases, to investigate the possibility of forming a company for the purpose of acquiring and leasing a drilling rig and related drilling equipment. He discussed the idea with certain business associates who were engaged in the oil and gas business, including Mr. Walter I. Phillips, Mr. James H. Hess, Mr. Dick Hess, Mr. David L. Murfin, Mr. Thomas J. Darrah, and Mr. John W. Sutherland, the principal in a family business, Sutherland Building Materials, Inc. The first five individuals are petitioners in five of the six cases consolidated herein. The sixth individual, Mr. Sutherland, is not a party to any of the subject cases, but he and the four other shareholders of Sutherland Building Material, Inc., a subchapter S

¹ Cases of the following petitioners are consolidated for trial, briefing, and opinion: James H. Hess and Constance M. Hess, docket No. 20453-87; George R. Hess and Evaline Hess, docket Nos. 20459-87 and 20460-87; Dick Hess and Estate of Lou Ann Hess, Deceased, Dick Hess, Executor, docket No. 20461-87; David L. Murfin and Janet K. Murfin, docket No. 20520-87; and Thomas J. Darrah and Mary Jill Darrah, docket No. 15261-88/

Cite as ¶ 64,190 P-H Memo TO

¶ 64,190—TC Memo 1964-190

RISS & COMPANY, INC., (A Delaware Corporation), Transferee, ET AL.¹

Docket Nos. 74950-74954, 77065, 78372, 81486, 81487. Opinion and Order by FORRESTER, J. Opinion dated 7-14-64. Order dated 9-28-64. Years 1949-1956. Deficiencies redetermined.

1. BUSINESS EXPENSES—Rental and royalty payments—payments to related parties—reasonableness. Business expense deduction allowed trucking corporation for rentals paid related corporation for use of leased equipment. Rentals were geared to lessee's depreciation deductions to limit its profits. Whether or not rentals were most appropriate or economically sound, they were bona fide rentals required to be paid for continued use of property. *Reference*: 1964 P-H Fed. ¶ 11,832(5).

2. TAX COURT—Burden of proof—presumption of correctness of Commissioner's determination—cases favoring Commissioner. Commissioner's determinations approved. Corporations failed to prove error on part of Commissioner in the following items: Commissioner's determination of allowable depreciation, useful life, salvage value of certain corporations' assets and of president's airplane; denying business expense deductions for certain inspection fees and attorney's fees, for withdrawals made by corporation's president and reimbursements to president's brother-in-law, for compensation payments to public relations representative, for expenses of proposed incorporation of an insurance company, for commissions and, construction work, certain "repairs"; and in denying bad debt deductions and a loss deduction on certain stock. *Reference*: 1964 P-H Fed. ¶ 41,722-B.

3. DEPRECIATION—Methods and rates—pre-guideline rates—useful life determinations. Useful life of corporation's tractors and trucks was 5 years. *References*: 1964 P-H Fed. ¶ 14,124-E; 14,159-P.

4. DEPRECIATION—Salvage value—determinations. Corporations' trucks

and trailers had salvage value of 10% of cost. *Reference*: 1964 P-H Fed. ¶ 14,089-D.

5. CONTRIBUTIONS—Form or method—miscellaneous. Charitable contribution deduction allowed corporation for stock and money given to college. While gifts were in some way connected with corporation's purchase of certain land from college, donative intent was dominant motive for gifts. *Reference*: 1964 P-H Fed. ¶ 12,049.

6. BUSINESS EXPENSES—Entertainment expenses—proof. Business expense deduction for operating costs of corporation's lodge was 75% of total lost. Nonbusiness use was 25% as determined by Tax Court. There was a proximate relationship between entertainment of corporation's guests at lodge and its business. *Reference*: 1964 P-H Fed. ¶ 11,196(5).

7. TAX ACCOUNTING—Time for claiming deductions—accrual method—accrual of liability. Deduction for corporation's payments to unemployment compensation fund was not proper in tax year; payment accrued in next year. While corporation's check was dated in earlier year, it wasn't mailed until next year. Corporation was not under a fixed and definite obligation to make payment in earlier year. *Reference*: 1964 P-H Fed. ¶ 6447(5).

8. TAX ACCOUNTING—Time for claiming deductions—reserves—contingent liabilities. Deduction denied trucking corporation for payments made into reserve for contingent liabilities under insurance contract. Payment wasn't an amount actually paid out by corporation or even a determined liability accruable in tax year. It was merely an amount deposited with bank as trustee for both corporation and insurer and didn't even cover all contingent liabilities. *Reference*: 1964 P-H Fed. ¶ 6461(5).

9. CAPITAL EXPENDITURES—Expenditures for assets or improvements—duration of life of asset. Business expense deduction denied trucking corporation for costs in putting new equipment into operation: They were capital ex-

¹ Proceedings of the following petitioners are consolidated herewith: Riss & Company, Inc., (A Colorado Corporation), Docket No. 74951; Transport Manufacturing & Equipment Company (a Delaware corporation), Transferee, Docket No. 74952; Transport Manufacturing & Equipment Company (an Illinois corporation), Docket No. 74953; Richard R. Riss, Sr., Docket No. 74954; Oklahoma-Colorado Freight Lines, Inc., Docket No. 77065; Transport Manufacturing & Equipment Company of Delaware, Docket No. 78372; Richard R. Riss, Sr., Docket No. 81486; and Richard R. Riss, Sr. and Helen G. Riss, Docket No. 81487.

Cite as ¶ 64,190 P-H Memo TC

Commission. It was incorporated under the laws of the State of Colorado in 1927 under the name of Riss & Quinn. Its name was changed to Riss & Company, Inc., in 1932. On June 27, 1956, it was reincorporated under the laws of the State of Delaware with the same capital structure, consisting of 20,000 class A common shares of a par value of \$1 each; 8,000 class B common shares, par value \$1 each; and 50,000 preferred shares, par value \$10 each.

All of the outstanding class A common stock (which was the only voting stock) of Riss & Company was owned, over the 1949-1955 period, by Riss, Sr., and a majority of its class B stock was owned by his children and grandchildren. Some of the class B shares, 5,355, were owned by T.M. & E. at one time, but prior to February 1952 these shares were acquired by Richard S. Riss, II, and Robert B. Riss, hereinafter sometimes referred to as Richard and Robert, sons of Riss, Sr. Substantially all of the stock of T.M. & E. was owned, by Riss, Sr., and his children and grandchildren.

Riss, Sr., was chairman of the board of Riss & Company and of T.M. & E. Robert became president of Riss & Company, May 22, 1950. Richard became president of T.M. & E. in 1951. The two companies had their offices at the same location, and, for the most part, utilized the same office force and facilities. They both kept their books and made their income tax returns on the basis of an accrual method of accounting and for a calendar year.

From time to time T.M. & E. leased terminal facilities and equipment to others than Riss & Company and engaged in other business activities, to a limited extent. Its principal business has always been owning and leasing, to Riss & Company, tractors, trailers and terminal facilities. It has never itself engaged in the common carrier business. At all times here material, Riss, Sr., directed the affairs of both companies. Although Richard was the duly elected president of T.M. & E. during the years here involved, he was under the direction of Riss, Sr.

Oklahoma-Colorado was organized January 1, 1947. It also acquired and

owned trailers and other equipment which it leased to Riss & Company. Its stock was owned by T.M. & E. until December 22, 1952, when it was purchased by Riss, Sr.'s three children. It also had the same address and occupied the same office as Riss & Company.

Issue 1 (II-III-IV)⁴

Business Expenses—Rentals—Paid to T.M. & E. by Riss & Company

FINDINGS OF FACT

During the years 1952, 1953 and 1954, Riss & Company operated a large number of tractors and trailers, most of which it leased from T.M. & E., and paid annual rentals thereon in excess of one-half million dollars. These rentals corresponded to the depreciation deductions on the equipment which T.M. & E. set up in its books and deducted in its returns. The rentals were designed to return to T.M. & E. the cost of the equipment plus financing charges and a nominal amount to cover bookkeeping costs. It was the intention of the parties that T.M. & E. should not realize any substantial profits on the rental of the equipment to Riss & Company. T.M. & E. was organized chiefly as a business convenience to Riss & Company and as a means of enabling Riss & Company to meet certain requirements of the Interstate Commerce Commission at a minimum cost and inconvenience. T.M. & E. performed no functions with respect to the leased equipment other than to sign the mortgages and notes, execute the lease agreements with Riss & Company, and pay over the rentals received from Riss & Company to the sellers of the equipment. All costs of repairs and other expenses of operating the equipment were borne by Riss & Company.

The equipment leased to Riss & Company by T.M. & E. included hundreds of trailers, tractors, trucks and other equipment purchased at various times.⁵ It was greatly increased after about 1948 when Riss & Company abandoned the so-called "provider" system, whereby a large portion of its hauling was done under contract by third parties who furnished their own equipment.

Early in 1954, under a broad expan-

⁴ The Roman numerals appearing in parentheses correspond to the issue numbers in the briefs filed by the parties.

⁵ Many of the detailed facts pertaining to the acquisition of the equipment in question and the terms of the purchase and lease agreements are set out in the stipulation which we have incorporated herein and will not be repeated here.

Equipment	1952		1953		1954		1955	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
(1) 1200 Fruehauf Trailers					\$1,702,628	\$ 590,285	\$2,483,522	\$1,594,673
(2) 150 Fruehauf Trailers	\$159,810	\$73,320	\$219,000	\$ 93,600	219,000	93,600	219,000	93,600
(3) 100 Strick Trailers			112,000	76,594	192,000	131,085	189,760	129,990
(4) 16 Tank trailers					3,750	1,992	43,895	23,905
(5) 497 G.M.C. Tractors					1,383,160	598,962	2,892,284	1,527,186
(6) 50 Diamond T. Tractors							122,388	63,658
Totals	\$159,810	\$73,320	\$331,000	\$170,194	\$3,500,538	\$1,415,924	\$5,950,849	\$3,433,012

OPINION

Upon what has determined to be a reasonable rental for each item of the leased equipment, in accordance with the rec-

Company's rental deductions are based

ommendations of the several revenue agents who examined petitioner's books and records. On brief, respondent argues that the lease agreements were not arms-length transactions and that the reasonableness of the rentals agreed upon is brought into question by the close relationship of the parties.

Obviously, Riss & Company and T.M. & E. had no adverse economic interests. They had substantially the same stockholders and were under control of the same executive offices. Whether or not the lease agreements were arms-length transactions or the rentals reasonable in amount, our question is whether the rentals paid were ordinary and necessary business expenses which Riss & Company was required to pay for the use of the equipment. See *Roland P. Place*, 17 T.C. 199, aff'd. 199 F.2d 373 [42 AFTR 701], certiorari denied 344 U.S. 927; *Southern Ford Tractor Corporation*, 29 T.C. 833.

Respondent does not question the bonafides of the leases, except as to the amounts of the rentals in some of them. He makes no contention that the lease arrangements were spurious and should be disregarded for tax purposes. Neither has he determined, nor does he presently contend, that the rentals paid to T.M. & E. by Riss & Company resulted in a distortion of the income of either corporation, requiring reapportionment of income or deductions between them, under section 45 of the Internal Revenue Code of 1939 and section 482 of the Internal Revenue Code of 1954:

Respondent does not contend, either, that the alleged excessive rentals paid by Riss & Company resulted in any tax advantage to the group as a whole. The petitioners insist that they did not, pointing out that T.M. & E. was in a higher tax bracket than was Riss & Company, so that no advantage would have been gained by such a shift of income. In any event, the evidence indicates that the lease arrangements were not designed as a tax avoidance scheme.

We see nothing inherently wrong in gearing the rentals to be paid by Riss & Company on the equipment purchased in 1954 and 1955 to the depreciation deductions taken on that equipment by T.M. & E., computed on a double declining balance basis. A reasonable argument might be made in favor of the declining rentals where, as here, the lessee was to

bear the cost of maintaining the equipment which naturally increased with age and usage. This plan of gearing the rentals to the depreciation deductions had been followed consistently in prior years, before T.M. & E. adopted the double declining balance method of computing depreciation on its equipment.

In this connection it is noted that respondent now concedes that the depreciation deductions claimed by T.M. & E., computed on a declining basis, on most of the leased equipment in 1955 and 1956 are allowable.

Respondent makes the further argument in his brief that the higher rentals paid in the earlier years of the leases which provided for declining rentals were in the nature of advance rentals and therefore were capital expenditures, deductible in the year for which paid or ratably over the years for which paid, citing *Harry W. Williamson*, 37 T.C. 941. There is no factual support for this theory in the evidence of record. There is nothing to indicate that in making the lease arrangements either of the parties had any intention of providing for prepayment of rentals on the equipment, or that it would have been to their advantage, taxwise, to do so. Their sole purpose seems to have been to have the rental payments correlated with the depreciation deductions taken by T.M. & E., consistent with their recognized purpose to limit T.M. & E.'s profits on the transactions. Again it is pointed out that our question is not whether the agreement under which the rentals were paid were the most appropriate or economically sound, but whether the payments were bona fide rentals required to be paid for the continued use of the property. We think that they were.

As to the equipment purchased by T.M. & E. in 1954 and 1955, on which the rentals were fixed on a declining basis, conforming to the depreciation deductions set up by T.M. & E., respondent has made no adjustment of the all-over rentals paid by Riss & Company but he contends that they should be spread ratably over the entire term of the lease and that, consequently, the rentals deducted by Riss & Company in 1954 and 1955 were excessive.

Respondent has made no corresponding adjustments in the rental income of T.M. & E. by reason of the partial dis-

Oito as ¶ 64,190 P-H Memo TO

allowance of rental deductions claimed by Riss & Company for 1952 and 1953, or prior years. However, for 1954, 1955 and 1956, he determined that the rental income reported by T.M. & E. was overstated to the extent of the amounts by which he had reduced the rental deductions claimed by Riss & Company in those years. By amendment to his pleadings respondent now contends, affirmatively, that notwithstanding his adjustments of Riss & Company's rental deductions for 1954, 1955 and 1956 T.M. & E. is taxable on all of the rental income received from Riss & Company in those years.

After careful consideration of all the evidence and giving due weight to the arguments made by the parties, we are of the opinion that Riss & Company is entitled to deduct as business expenses all of the rentals paid to T.M. & E. for the use of the leased equipment. Our determination on this issue removes from consideration the question of T.M. & E.'s liability for tax on the amounts of rental deductions disallowed Riss & Company.

Issue 2 (VIII, IX, X, LIV, LV)

Depreciation—Riss & Company, T.M. & E. and Oklahoma-Colorado

The depreciation issues relate to Riss & Company for the years 1952 to 1955, inclusive, to T.M. & E. for the years 1949 to 1956, inclusive, and to Oklahoma-Colorado for the years 1952 and 1953. There are disputes as to the useful life, salvage value and other factors pertaining to depreciation allowances on hundreds of different items of equipment, including trailers, tractors, trucks and others. Some of the depreciation issues have been removed from consideration and others narrowed by stipulation.

FINDINGS OF FACT

As to Riss & Company, the specific items in controversy include 99 Corbitt tractors and 50 Dodge trucks acquired during 1950 and 1951, 25 Dodge trucks acquired in 1952, and 400 refrigerating units acquired in 1954. The tractors and trucks were acquired under lease agreements with T.M. & E. which ran for 4

years, with an option to purchase for a nominal price. This equipment was all acquired for city delivery use, as distinguished from over-the-road, long-haul use. Riss & Company deducted the payments made under the lease agreements as rentals but it now concedes that they were outright purchase money payments, as determined by respondent in his notice of deficiency. Respondent allowed Riss & Company depreciation deductions computed on the basis of a useful life of 7 years and a salvage value of \$400 per unit for the 99 Corbitt tractors, a useful life of 7 years and a salvage value of \$300 for the 50 Dodge trucks, and a useful life of 8 years and a salvage value of \$300 for the 25 Dodge trucks. The tractors and trucks had an average useful life of 6 years and a reasonably expected salvage value of 10 percent of cost.

Also included in the Riss & Company equipment, subject to the depreciation dispute, were 400 Thermo-King refrigerating units which Riss & Company acquired in 1954 for installation in the trailers which it leased from T.M. & E. in that year. These units were acquired under lease-purchase agreements, extending over a period of 3 years. The payments thereon were deducted as rentals by Riss & Company in the amounts of \$149,436 in 1954 and \$269,232 in 1955. It is now stipulated, as with the tractors and trailers discussed above, that the refrigeration units were acquired by purchase rather than leased, as determined by respondent, and are subject to depreciation deductions. In his determination respondent computed depreciation on the units on a straight-line basis over a period of 6 years. It is stipulated, however, that depreciation deductions may be taken under the double declining balance method and that petitioner's basis for depreciation is \$867,388. All of these units were sold by Riss & Company in 1957 after an average usage of approximately 3 years for \$506,250.

As to T.M. & E., the total depreciation and amortization deductions claimed and the amounts allowed by respondent for each of the years 1949 to 1956, inclusive, are as follows:

<i>Year</i>	<i>Amount Claimed</i>	<i>Amount Allowed</i>	<i>Amount Disallowed</i>
1949	\$ 460,225.23	\$ 144,290.56	\$ 315,934.67
1950	714,510.38	242,086.40	472,423.98
1951	889,598.19	324,071.84	565,526.35
1952	1,102,530.64	450,610.35	651,920.29
1953	1,250,114.88	619,312.41	630,802.47
1954	3,682,662.39	1,919,475.90	1,763,186.49
1955	5,098,025.84	3,515,971.33	1,582,054.31
1956	3,069,446.56	2,409,770.24	659,676.32

There were over 3,000 different items of equipment involved in the depreciation computations including various tractors, trailers, trucks and other equipment. On most of these items respondent increased the useful life, over that used by petitioner in its returns, and attributed to some, particularly the trailers, salvage values amounting to over 70 percent of cost and an average salvage value of over 50 percent was attributed to 17 different groups of trailers, with about 1,300 different units not including the 1,200 Fruehauf trailers and 16 tank trailers purchased in 1954 on which depreciation was computed on a double declining balance basis.

As to the 1,200 Fruehauf trailers and the 497 G.M.C. tractors purchased from Fruehauf in 1954, T.M. & E. claimed depreciation deductions on a double declining balance basis, spread over a period of 4 years for the tractors and 6 years for the trailers. It did not set up any salvage values for any of the equipment. Respondent now concedes that the use of the double declining balance method of depreciating the equipment over a useful life of 4 years for the tractors and 6 years for the trailers was proper. However, the parties are still in disagreement both as to the time for the commencement of depreciation by T.M. & E., on some of the equipment and its salvage value.

T.M. & E. computed depreciation on the trailers by reference to the dates of the invoices received from the manufacturers, which were mailed to T.M. & E. when the equipment was ready for service, whereas the respondent contends that depreciation should begin from the date when the equipment was actually delivered to and put into service by Riss & Company. Petitioner commenced depreciation on the first of the month where the invoices were dated on or be-

fore the 15th, and on the first of the succeeding month where they were dated on the 16th or later. Respondent has allowed a full month's depreciation for the month in which the delivery was made.

The trailers were manufactured at Fruehauf plants located at Memphis, Tennessee and Westfield, Massachusetts, and, in accordance with the purchase agreements, were placed on parking lots on the manufacturer's premises waiting to be picked up by Riss & Company at its convenience.

At about the time of its purchase of the 1,200 new trailers from Fruehauf in 1954, T.M. & E. sold to Fruehauf practically all of its presently owned trailers, 771, then under lease to Riss & Company, for \$2,731,070.06. Included in the sale were 130 trailers owned by Colorado-Oklahoma and Louise Riss, which were also leased to Riss & Company. The negotiations for the purchase of the new equipment and the sale of the used trailers were concluded about the middle of 1954. Fruehauf was billed for the old trailers purchased from T.M. & E., December 31, 1954, and later paid the purchase price by check. The cost of the 771 units to T.M. & E. was \$3,417,463.18. The trailers had been in service an average of about 50 months, 140 of them having been purchased by T.M. & E. in 1948, 239 in 1949, 73 in 1950, 122 in 1951, and 197 in 1952. The depreciation deduction claimed on them by T.M. & E. since their acquisition, based on a useful life of 5 years for new trailers and 3 years for used ones, amounted to approximately \$2,878,244.15. In his computation of the depreciation allowances on the trailers, respondent assigned to them at the time of their acquisition by T.M. & E. a salvage value equal to their sale price in 1954, and allowed only \$948,521.06 of the depreciation deduc-

Oito as ¶ 64,190 P-H Memo TO

tions of over \$2,800,000 claimed by T.M. & E.

Also during the years 1954, 1955 and 1956, T.M. & E. purchased 50 Diamond T tractors, 16 Fruehauf tank trailers and 16 G.M.C. trucks on which it computed depreciation deductions under a double declining balance method, based on a useful life of 4 years for the tractors and trucks and 6 years for the tank trailers. Respondent has determined that the tractors and trucks had a useful life of 6 years and the tank trailers a useful life of 10 years.

The tank trailers were acquired in 1954 for the purpose of refueling the tractors at Riss & Company's various terminals throughout its territory. However, due to operational difficulties not related to their useful life petitioner abandoned their use, for the most part, after 1956.

As to Oklahoma-Colorado the only depreciation issue relates to the useful life and salvage value of the 36 trailers which that company leased to Riss & Company over the 1952-1953 period. These trailers had been acquired in prior years dating back to 1947. Oklahoma-Colorado claimed depreciation on them based on a useful life of 5 years for the new and 3 years for the used trailers, and a salvage value of 10 percent of cost. Thirty-three of the 36 trailers were sold to Fruehauf in 1954 along with the 771 trailers sold to Fruehauf in that year by T.M. & E. All of the 33 trailers had been fully depreciated down to salvage value at the time of their sale to Fruehauf.

In his determination of the allowable depreciation deductions on the trailers, respondent used a salvage value equal to the sale price of the trailers to Frue-

hauf in 1954, the same as for the trailers sold by T.M. & E. These trailers were of the same general type and were subjected to the same usage as the T.M. & E. trailers.

OPINION

The depreciation allowable on assets used in a trade or business depends on the usage and condition of the equipment over the period of its normal use by the taxpayer and its estimated resale or salvage value at the end of such usage. See *Massey Motors v. United States*, 364 U.S. 92 [5 AFTR 2d 1780].

Except as to certain specific items, the evidence before us contains little information about the actual use of much of the equipment involved or its physical condition or resale value in any of the years under review; and those factors are not relied upon to any great extent by petitioners. Regarding respondent's depreciation adjustments in general, petitioners argue, with reference to Rev. Rul. 90, 1953-1 C.B. 43,⁶ and Rev. Rul. 91, 1953-1 C.B. 44,⁷ that respondent has the burden of proving a reasonable basis for his depreciation adjustments and has failed to do so. They state in their brief:

We submit that until there has been shown by respondent "a clear and convincing basis for any adjustments" that respondent has not complied with the duty resting on respondent. This is one portion of the case where the burden is on respondent as opposed to being on petitioners.

Petitioners apparently misconceive the import of the cited rulings. As pointed out by respondent, the rulings are declarations of Internal Revenue Service policy, intended for administrative guidance and are not rules of law. They in no way

* 2. Accordingly, effective May 12, 1953, and as respects all open years for which agreement as to the tax liability has not been reached at any level within the Internal Revenue Service as of that date, it shall be the policy of the Service generally not to disturb depreciation deductions, and revenue employees shall propose adjustments in the depreciation deduction only where there is a clear and convincing basis for a change. This policy shall be applied to give effect to its principal purpose of reducing controversies with respect to depreciation.

* 1. The purpose of this Revenue Ruling is to furnish guidance with respect to the application of Revenue Ruling 90, page 43, which sets forth the policy with respect to depreciation adjustments.

* 2. Among the factors which should be given careful consideration in order to give full force and effect to the announced policy are the following:

- (a) Whether depreciation rates used by the taxpayer are fair and reasonable under the circumstances;
- (b) Whether the taxpayer has followed a consistent practice in arriving at the amount of depreciation deductions;
- (c) Whether in considering all factors, including reasonable tolerances, any adjustments proposed are substantial.

affect the statutory burden of proof imposed upon petitioners with respect to the present depreciation issues. The burden of proving the facts necessary to sustain their depreciation claims rests on petitioners and not on respondent. See *M. Pauline Casey*, 38 T.C. 357 (1962).

As to all items in controversy except those specifically dealt with herein, respondent's determination of petitioners' allowable depreciation is sustained.

As to Riss & Company, we have found on the evidence of record that the 99 Corbitt tractors and 75 Dodge trucks, acquired by petitioner in 1950 and 1951, had a useful life of 5 years and a salvage value of 10 percent of cost.

The only dispute as to the refrigerating units, the only other Riss & Company item in dispute, is whether depreciation should be computed on the basis of a useful life of 6 years, as respondent has determined, or 3 years, as claimed by petitioner. No question has been raised as to what if any salvage value the units might have had at the end of their useful life.

The evidence is that the refrigerating units would not function satisfactorily; that they were too small for the trailers in which they were installed; and that the trailers themselves were improperly insulated, causing the units to work overtime. Some of the units were not used all of the 3 years of their ownership by Riss & Company.

In the absence of proof of any economic conditions or other circumstances which might have enhanced the resale value of the units, the fact that Riss & Company was able to sell them in 1957, after they had been in use for approximately 3 years, under somewhat adverse conditions, at more than half their original cost, indicates a useful life of at least 6 years as determined by the respondent. In any event, there is not sufficient evidence as to the actual use of the units and their condition at the time of sale by petitioner to establish a 3 year useful life, as claimed by petitioner, or to overcome the presumptive correctness of respondent's determination of a useful life of 6 years.

T. M. & E. makes the same argument as Riss & Company that respondent has the burden of proof in respect of the

depreciation adjustments and that he has failed to offer clear and convincing evidence to support his determination. As pointed out above, this argument is unavailing.

Respondent contends that T.M. & E.'s depreciation on the 1,200 trailers should begin not at the time when they were invoiced to T.M. & E. but when they were actually put into service by Riss & Company. He cites section 1.167(a)-10(b), *Income Tax Regs.*,⁸ and among other cases *Massey Motors, Inc.*, supra.

As we see it the question here does not challenge the correctness of the regulations fixing the beginning of depreciation at the time the asset is placed in service. Obviously, the regulation refers to the time when the asset is placed in service by the owner. The owner here was T.M. & E., not Riss & Company. T.M. & E.'s only use of the equipment was its lease to Riss & Company, therefore it was placed in service by T.M. & E. on the effective dates of the lease agreements which corresponded with the dates of the invoices. These were the dates on which Riss & Company began the rental payments to T.M. & E. As lessee Riss & Company put the equipment into its own service at its own convenience and in the best interests of its own business. The evidence is that the equipment was already for service and placed at the disposal of Riss & Company at the time it was invoiced to T.M. & E. We think that T.M. & E. correctly used the dates of the invoices for the commencement of depreciation.

As to the 50 Diamond T tractors and 16 G.M.C. trucks, the evidence fails to show a useful life of less than that of 6 years as determined by respondent.

There is evidence that the use of the 16 tank trailers was discontinued after a few years because of certain operational difficulties not related to their useful life. However, there is no evidence on which we can find that their useful life was less than 10 years, as determined by respondent.

T.M. & E. contends that the reasonably estimated salvage value, in the years prior to 1954, of the used trailers sold to Fruehauf was considerably less than their sale price to Fruehauf, which was the salvage value used by respondent in

⁸ The period for depreciation of an asset shall begin when the asset is placed in service.

Cite as ¶ 64,190 P-H Memo TO

computing depreciation for all years prior to 1954. The evidence we think supports that contention. Most of the trailers were of the 32 foot length type, which at the time of their sale to Fruehauf were becoming obsolete for long distance motor freight transportation and were rapidly being replaced with the longer 35 foot trailers. The evidence is that the saving resulting from this comparatively small increase in payload capacity was a vital profits factor in long-haul transportation. Most of the state laws had authorized the use of the larger trailers on their highways and the motor freight industry was rapidly converting to their use.

The reason for Fruehauf's willingness to pay more than a normal salvage price for the trailers was due in large part to the demand for the short trailers resulting from the development by the railroads of the "piggy back" method of freight transportation, where loaded trailers would be placed on freight cars and transported by rail to the area of their destination. The standard freight car would accommodate two of the 32 foot trailers but not two of the newer 35 foot length. The Korean conflict and the resulting demand for transportation, and also the scarcity of transportation facilities, had boosted the price of all used trailers and tractors.

Respondent now concedes that the acquisition of the used trailers by Fruehauf was a purchase and not a trade allowance on the new trailers purchased by T.M. & E. in 1954, as he determined in his notice of deficiency. On its part, T.M. & E. concedes that under the Cohn rule (Cohn v. United States, 259 F.2d 371 [2 AFTR 2d 5770]) it is not entitled to any depreciation deductions on those trailers in 1954, the year of their sale.

Since the respondent has made no adjustments with respect to the useful life of the trailers, the question of salvage value is the only one to be determined.

On the evidence as a whole, we find that the reasonable salvage value of the 771 trailers, to be used in computing T.M. & E.'s depreciation deductions for the years prior to 1954, was 10 percent of their cost.

As to Oklahoma-Colorado the only depreciation question presented is the salvage value of the trailers which it sold to Fruehauf in 1954. We have held above that the sale price of the trailers to Fruehauf in 1954 did not reflect their true salvage value in prior years and that for the purpose of computing depreciation for the years prior to 1954, a salvage value of 10 percent of cost should be used. We so hold with respect to the 33 trailers owned by Oklahoma-Colorado. Oklahoma-Colorado concedes, as does T.M. & E., that under the Cohn rule it is not entitled to any depreciation deduction in 1954 on the trailers in that year.

Issue 3 (V)

The following issues numbered 3 to 16, inclusive, relate to Riss & Company only.

Business Expenses—Reimbursement to Riss, Sr.

FINDINGS OF FACT

In each of the years 1952 to 1956, inclusive, Riss, Sr., was reimbursed by Riss & Company for amounts which he had allegedly spent on the company's behalf for travel, entertainment and other purposes. He kept no record of such expenditures and did not submit itemized statements to Riss & Company. His account was set up in Riss & Company's book as follows:

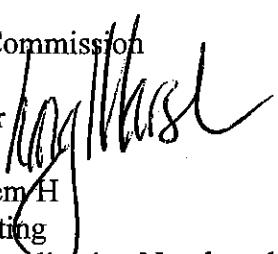
Year	Estimated Expenses	Kansas City Club Expenses	Other Expenses	Total Expenses
1952	\$11,861.20	\$6,966.90	\$7,178.90	\$26,007.00
1953	11,430.00	6,247.50	5,729.50	23,407.00
1954	8,825.00	7,419.91	1,755.09	18,000.00
1955	9,700.00	6,235.11	9,539.89	25,475.00
1956	10,000.00	3,576.80	7,994.20	21,571.00

Respondent has disallowed approximately 75 percent of the above amounts claimed as "estimated expenses" and "Kansas City Club expenses," but has

allowed the deduction of all of the "other expenses," which consisted of payments made by Riss & Company on bills submitted directly to it by various restau-

State of Oregon
Department of Environmental Quality

Memorandum

Date: July 10, 2000
To: Environmental Quality Commission
From: Langdon Marsh, Director 
Subject: Addendum to Agenda Item H
July 14, 2000, EQC Meeting
Willamette Industries - Application Numbered 4570

Application 4570 - Willamette Industries, Inc.

Willamette Industries' (WI) claimed East Multnomah Recycling (EMR) for certification as a pollution control facility on application numbered 4570. EMR processed about 400,000 tons of corrugated cardboard, newspaper, mixed waste paper, and high-grade office paper between 1994 and 1998. It processes about 10% of all waste recycled in the Portland metropolitan area.

Willamette Industries submitted application number 4570 to the Department on December 22, 1995. The Department presented the application as part of the tax credit agenda item on five occasions starting with the November 21, 1997 EQC meeting. Consideration of the application was removed from the agenda on four of those occasions. On December 20, 1999, Willamette Industries took the opportunity to present testimony before the Commission. The minutes to that meeting are attached.

Direction Required

Staff does not question the value or the eligibility of the "material recovery process" provided at EMR. The only outstanding issue for this facility is — When was construction substantially complete for its pollution control purpose? Staff interpretation of the regulations concludes that the application was not submitted timely, based on the following two questions regarding the date that construction of this facility was substantially completed.

1. Considering that the facility began operating on September 27, 1993 under the ownership of Willamette Industries, can the effective date of the lease to Far West Fibers be considered the date of substantial completion?
2. Considering that the facility began operating on September 27, 1993 for the purpose of reducing, controlling or eliminating solid waste through a material recovery process, can any components added after that date extend the date of substantial completion?

In the absence of previous examples or a different policy direction from the Commission, the Director's Recommendation on the attached Review Report is to "Reject" the application for untimely submittal.

Background

The statute and rule regarding the pollution control facility tax credit application deadline for filing are shown below.

ORS 468.165(6) 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.

OAR340-016-0010 (11)¹ 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."

The term "facility" as it is used in the definition of "substantial completion" does not refer to the plant site, the entire construction project or the business endeavor. It refers to the "*pollution control*" facility as defined in ORS 468.155.

The term "purpose" as it is used in the definition of "substantial completion" means either the principal or sole pollution control purpose as defined in ORS 468.155, not the purpose of the business endeavor or the plant site.

Elements of EMR

The applicant claimed the following major components of EMR as part of the material recovery process on their application.

- A. Enterprise Baler
- B. Krause Baler Conveyor
- C. Krause Sorting Convey
- D. Michigan Wheel Loader
- E. Mitsubishi 6Mlb Fork Lift Truck
- F. Mitsubishi 6Mlb Fork Lift Truck
- G. Toledo Truck Scale (100T)
- H. (3) DeWald Steel Platforms
- I. (25) DeWald Steel Boxes
- J. Toledo Platform Scale (10T)
- K. (5) Cascade Steel Containers
- L. Cascade Lift Truck Rotator
- M. DCE Dust Filter System

¹ The department received and reviewed application numbered 4570 under the rules in effect in 1995 (effective March 13, 1990) not the rules became effective May 1, 1998. Applicants with pending applications in 1998 could elect to have their application reviewed according to the 1990 rules. Willamette Industries did not make this election.

EMR Application Milestones

Willamette Industries is the owner of East Multnomah Recycling. The claimed facility is a leasehold that was designed and built by Willamette Industries, Inc. for the purpose of leasing to its tenant, Far West Fibers-EZ Recycling. The relevant milestones are outlined in the following chart.

Date	Milestone
1993 Sept. 27	<ul style="list-style-type: none"> ▪ Far West Fibers began operating the EMR ▪ EMR received raw materials ▪ Baler began operating without the DCE dust filter system (DCE) ▪ Applicant claimed the Toledo <u>platform</u> scale was not installed. (Toledo <u>truck</u> scale was installed.)
1993 Oct.	<ul style="list-style-type: none"> ▪ Approximately 3,500 tons of recyclable material baled
1993 Nov.	<ul style="list-style-type: none"> ▪ Approximately 5,000 tons of recyclable material baled
1993 Dec. 1 – Dec. 21	<ul style="list-style-type: none"> ▪ Approximately 3,700 tons of recyclable material baled ▪
1993 Dec. 22	<ul style="list-style-type: none"> ▪ Two Years Prior to Application Submittal
1994 Jan. 1	<ul style="list-style-type: none"> ▪ Effective date of lease between WI & Far West Fibers ▪ EMR placed on WI's accounting books ▪ WI began depreciating EMR ▪ Rent began accruing for EMR
1994 After Jan. 13	<ul style="list-style-type: none"> ▪ Lease executed by WI and Far West Fibers
1994 Feb.	<ul style="list-style-type: none"> ▪ Installation of DCE dust filter system began
1994 Mar.	<ul style="list-style-type: none"> ▪ Installation of DCE dust filter system completed
1994 Apr.	<ul style="list-style-type: none"> ▪ Dust control piping added
1994 Jan. 1 - Dec. 31	<ul style="list-style-type: none"> ▪ Averaged 6,556 tons of recyclable material baled each month
1994 Mar. or Apr.	<ul style="list-style-type: none"> ▪ DCE dust filter system became operational
1995 Dec. 22	<ul style="list-style-type: none"> ▪ Date stamp upon hand delivery to Department
1995 Dec. 26	<ul style="list-style-type: none"> ▪ Date stamp on application and Deposit Slip 19032

Question 1

Considering that the facility began operating on September 27, 1993 under the ownership of Willamette Industries, can the effective date of the lease to Far West Fibers be considered the date of substantial completion?

If Yes: If the Commission determines that the date of the lease is considered the date of substantial completion then the Commission must approve certification of the facility represented on the attached Review Report as a pollution control facility.

Policy Implication

Should the Commission consider the date of the lease as the date of substantial completion then owners of material recovery facilities could own and operate a facility for any number of years then enter into a lease agreement in order to obtain a tax credit in any future year. To avoid this broad interpretation, a possible policy statement could include a limiting phrase such as, "... for facilities built for the express purpose of being leased."

The applicant claimed that the date the facility was substantially complete was January 1, 1994, the effective date of the lease. The applicant provided the lease as evidence that the application submitted on December 22, 1995 was filed within the two-year filing period.

If No: If the Commission determines that the date of the lease is not considered the date of substantial completion then the Commission must affirm that the lease date for EMR is not the date that construction of the facility was substantially completed, and would be rejected for *untimely submittal*.

Department's Interpretation: The Department considers that Willamette Industries owned the facility on September 27, 1993, the date that the facility actually began operating for its pollution control purpose. Therefore, the Department concludes that January 1, 1994, the effective date of the lease, is not the date that construction of the facility was substantially completed.

Question 2

Considering that the facility began operating on September 27, 1993 for the purpose of reducing, controlling or eliminating solid waste through a material recovery process, can any components added after that date extend the date of substantial completion?

If Yes: If the Commission determines that components added after the date that the facility began operating would extend the date that construction of the facility was substantially completed then the Commission must approve certification as a pollution control facility based on their findings that:

- Either the DCE dust filter system or the Toledo platform scale is essential to the sole purpose of preventing, controlling, or reducing a substantial quantity of solid waste, and
- The 12,200 tons of recyclable material baled prior to December 22, 1993, is not considered a substantial quantity of solid waste.

On December 8, 1999, and December 10, 1999, Willamette Industries provided additional information claiming all elements of the facility that are essential for the EMR to perform its purpose were not in place until after December 22, 1993; therefore, the facility was not substantially complete. They claimed the following two essential elements were not completed until after December 22, 1993.

- a) The applicant provided affidavits that they did not install the DCE dust filter system until the first quarter of 1994.
- b) The applicant claimed that the Toledo platform scale was not installed until after December 22, 1993.

If No: If the Commission determines that the components added after the date that the facility began operating do not extend the date that construction of the facility was substantially completed then the Commission must reject the application number 4570 for untimely submittal.

Department's Interpretation: The Department considers that the facility accepted and baled 12,200 tons of material in the three months prior to December 22, 1993 with Willamette Industries as the owner. The baled material is evidence that all elements that were essential for the claimed facility to perform its pollution control purpose were installed; therefore, the facility was substantially completed prior to December 22, 1993.

The applicant's determination that the DCE dust filter system or the Toledo platform scale is essential for the operation of East Mutnomah Recycling is not pertinent to the pollution control tax credit law. What is pertinent is that the DCE dust filter system or the Toledo platform scale be essential to the *sole purpose* of controlling a *substantial quantity* of solid waste.

The law identifies the filing deadline as “within two years after construction of the facility is substantially completed.” It does not identify the filing deadline with the facility achieving the maximum production rate at which it will reliably be operated.

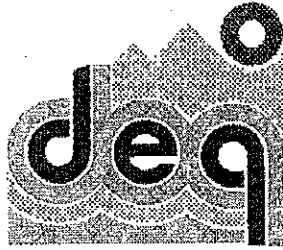
The Department considers that the DCE dust filter system and the Toledo platform scale are not essential for the facility to perform its “sole purpose to control, reduce, or eliminate a substantial quantity of solid waste” for the following reasons.

- The facility began operating for its pollution control purpose on September 27, 1993. It began operating without the functional DCE dust filter system and the Toledo platform scales.
- The DCE dust filter system and the Toledo platform scale do not prevent, control, or reduce a substantial quantity of solid waste.
- The dust collection system and the Toledo platform scale are each “a distinct portion of a pollution control facility that make an insignificant contribution to the principal or sole purpose of the facility” as set out in ORS 468.155 (2).

Attachments

Review Report – Application Number 4570
EQC Minutes of the 281st Meeting – December 20, 1999

Report Prepared by: Margaret Vandehey
Phone: (503) 229-6878
Date Prepared: July 10, 2000



Tax Credit Review Report

EQC 0007

Director's Recommendation:	REJECT
	Untimely Submittal
Applicant	Willamette Industries, Inc
Application No.	4570
<u>Claimed</u> Facility Cost	\$2,812,715
<u>Claimed</u> % Allocable	100%
<u>Claimed</u> Useful Life	20 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:

**Enterprise 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 claimed facility is a wastepaper collection, processing and storage facility. The facility receives waste paper from independent collectors who recover the waste paper from residential and commercial generators. The waste paper deliveries are received, weighed, and transported to temporary storage areas, separated by type of paper. The paper is removed from storage and transported to a processing area where it is goes through a sorting process, often with the use of a

sorting conveyor system. Sorted paper is transported from the sorting system to a baler where it is baled. The paper bales are weighted, labeled, and transported to a bale storage area, again separated by type of paper. Eventually bales are removed from storage and loaded into trucks or shipping containers, the loads are weighed and transported to paper mills to be recycled into new paper products.

The claimed facility consists of the following components:

- **Building, including the receiving and shipping areas:**

At the time of application the facility received, processed and shipped approximately 3,000 tons per month of waste paper. The 50,000 square foot building is only used to receive the loads of loose waste paper, store both loose and baled papers and house all of the processing activities. The new portion of this structure, 21,000 square feet is identified as part of the claimed facility. The receiving area, on the floor inside the building, and the shipping area, 8 loading docks are only used to handle waste paper.

- **Sorting and processing equipment:**

Most of the waste paper is sorted through a Krause sorting system that includes feed and sorting conveyors, platform with sorting stations, and steel sorting containers. Sorted paper is baled using an Enterprise baler equipped with a feed conveyor, ruffler, dust filter, and auto-tie system. Finished bales are weighted, labeled, and stored in stacks for future shipment.

- **Material handling equipment**

The claimed facility includes a variety of material handling equipment necessary to move loose sorted and unsorted waste paper, waste paper bales, and steel sorting containers. This includes one wheel loader for moving loose paper and two fork lift trucks for moving bales and sorting containers. Equipment for the forklift trucks includes a lift truck rotator for dumping sorting containers. Sorting containers include Cascade steel containers and DeWald steel boxes.

- **Scales**

The 100-ton Toledo truck scales are used to weigh incoming loads of loose paper and outgoing shipments of baled paper. The 10-ton Toledo platform scales are used to weigh sorted waste paper in boxes and individual paper bales.

Eligibility

First Level Eligibility

- ORS 468.155 The **sole purpose** of this **new building, machinery and equipment** is to prevent, (1)(a) control or reduce a substantial quantity of solid waste.
- ORS 468.155 The exclusive or “sole purpose” of the fire protection system is not to prevent, (1)(a) control or reduce a substantial quantity of solid waste.
- ORS 468.155 The exclusive or “sole purpose” of the DCE dust filter system is not to prevent, (1)(a) control or reduce a substantial quantity of solid waste. As stated in the Affidavit of Marc W. Olsen, Willamette Industries, Inc., Project Manager, East Multnomah

County Recycling, dated December 8, 1999: "The DCE dust filter system lowers the level of dust in the building, keeps dust out of the work area and off the equipment, and helps insure safe driving conditions for forklift operators in the facility." Also, this component is not eligible as an air pollution control facility since it fails the definition of an air pollution control facility for tax credit purposes.

ORS 468.155 (1)(a) The exclusive or "sole purpose" of the scales is not to prevent, control, or reduce a substantial quantity of solid waste. The purpose of the scales is used by Far West Fibers to bill its suppliers.

ORS 468.155 (1)(b)(D) The pollution control purpose of the building, machinery and equipment is accomplished by 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 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 Far West Fibers plant personnel affirmed September 27, 1993, as the date the facility began operating for pollution control purposes; therefore, the Department considers September 27, 1993 as the date construction was completed.

The applicant, the lessor of the facility, claims the date of substantial completion of the facility is January 1, 1994, the effective date of the lease. This date is within the two-year period to file an application after substantial completion of the facility construction.

<i>Application Received</i>	12/26/1995
<i>Additional Information Requested</i>	06/12/96
<i>Letter Requesting Additional Time to Provide Additional Information</i>	12/2/96
<i>Reminder of Expiration of 180 Period to Provide Additional Info</i>	05/01/97
<i>Additional Information Provided</i>	5/30/97
<i>Application Complete</i>	10/12/1997
<i>Scheduled Before Commission</i>	11/21/97
"	12/11/98
"	11/18/99
"	12/20/99
"	2/10/00
<i>Additional Information Provided</i>	12/8/99
"	12/10/99
" <i>Cost Documentation</i>	1/06/99
<i>Construction Started</i>	05/01/1993
<i>Construction Completed</i>	9/27/1993
<i>Facility Placed into Operation</i>	9/27/1993

On December 8, 1999 and December 10, 1999, Willamette Industries presented information that had not been previously presented to the Department. They claimed that the dust collection system and the scales had not been completed until after December 31, 1993; therefore, the facility was not substantially complete.

Facility Cost

Claimed Cost		\$2,596,818
Unclaimed Allowable Cost (land)		358,600
Fire Protection System allocated to EMR	(\$47,215)	
DCE Dust Filter System	(25,352)	
Scales	(58,557)	
Misc. (Signs, curbs, fences, landscaping)	(11,579)	
Non-Allowable	<u>(\$142,703)</u>	<u>(\$142,703)</u>
Allowable Facility Cost		\$2,812,715

	Amount	Invoice Number	Invoice Date
Fire	\$ 8,500.00	4586	6/21/93
Protection	\$ 6,500.00	4623	7/23/93
	\$ 14,626.80	4650	8/25/93
	\$ 2,775.00	4674	9/24/93
	\$ 14,813.20	4656	9/20/93
	\$ 1,390.00	4764	12/22/93
	<u>\$ 47,215.00</u>		
DCE Dust	\$ 8,404.00	5736	8/12/93
Control	\$ 8,265.03	7497	12/16/93
	\$ 4,341.50	1208	2/18/94
	\$ 4,341.50	1219	3/21/94
	<u>\$ 25,352.03</u>		
Morris Scale	\$ 17,333.33	061893-1	6/16/93
	\$ 2,690.00	19982	9/23/93
	\$ 17,333.33	51093-02	5/10/93
	\$ 17,333.33	102093-1	10/20/93
	\$ 2,500.00	F10840	12/7/93
	\$ 1,367.00	21094-02	2/10/94
	<u>\$ 58,556.99</u>		

Invoices and vouchers substantiated the facility cost. The applicant allocated overhead by an acceptable method. The reviewers analyzed the facility cost on behalf of the Department. KPMG Peat Marwick, LLP provided the accounting review on behalf of the applicant.

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 factors listed in OAR 340-16-030(1)(g). Therefore, the Department considered the factors in ORS.468.190 (1) to determine the percentage of the faci

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

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 average annual cash flow for the facility is determined by the lease amount. The average annual income from the lease is \$135,000. Only 93%, or \$125,550, of the lease payment is allocable to the claimed facility because a portion includes office and other space not included in the claimed facility.</p> <p>The applicant did not include income associated with the sale of recovered material or expenditures incurred during the recovery process. As the lessor, this information is not available to the applicant and was not considered in determining the return on investment.</p> <p>Using lease payments only, the return on investment of 0% is calculated by using the allowable facility cost (\$2,812,715), the useful life of the facility (20 years), and average annual income of \$125,550 according to Division 16 of Division 340. This resulted in the determination that 100% of the facility cost would have been 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. The Department considers 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. Willamette Industries purchases material from this material recovery process at a fair market value.
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: William R Bree, DEQ; M.C.Vandehey, DEQ

Minutes are not final until approved by the EQC

Environmental Quality Commission Minutes of the Two Hundred and Eighty-first Meeting

**December 20, 1999
Special Phone Meeting**

On December 20, 1999, a special phone meeting of the Environmental Quality Commission (EQC) was held at the Department of Environmental Quality (DEQ) headquarters, 811 SW Sixth, Portland, Oregon. The following Environmental Quality Commission members were present by phone:

Melinda Eden, Chair
Deirdre Malarkey, Member
Tony Van Vliet, Member
Mark Reeve, Member

Present in person were Harvey Bennett, EQC Member, Larry Knudsen, Assistant Attorney General, Oregon Department of Justice (DOJ); Langdon Marsh, Director, Department of Environmental Quality; 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.

The Environmental Quality Commission held an executive session at 8:30 a.m. The Commission discussed pending litigation regarding EZ Drain Company v. State of Oregon, Department of Environmental Quality, Case No. 9809-06683 and Tidewater Barge Lines v. Department of Environmental Quality, Case No. A98545. The executive session was held pursuant to ORS 192.660(1)(h).

Chair Eden called the meeting to order at 9:10 a.m.

A. Approval of Tax Credits

Maggie Vandehey presented Agenda Item A and its Addendum, which included 39 tax credit applications for action under the Pollution Control Facility Tax Credit Program (37) and the Pollution Prevention Tax Credit Program (2).

The Department calls attention to specific applications in the staff report for one of three reasons:

- The applicant disagrees with the staff's recommendation,
- The Commission's action may set a new policy direction, or
- The reviewers can benefit from a clear policy statement.

Approvals

Ms. Vandehey presented the applications for certification approval. Two applications were from dry cleaners presented according to the Pollution Prevention statutes and rules. The remaining applications were presented according to the Pollution Control Facility Tax Credit statutes and rules. She also described deviations from the published Agenda Item for applications #4792, #4927, and #5223.

The Commission first discussed applications from Willamette Industries. Commissioner Van Vliet declared a conflict of interest because he owns shares in Willamette Industries, Inc.

Willamette Industries presented additional information for application #4792 documenting the fact that a non-allowable

amount of \$9,892 for fire protection was actually for spark detection in the baghouse – an allowable cost. The facility cost recommended for certification should be adjusted to \$71,523.

Willamette Industries sent a letter dated December 8, 1999, disagreeing with staff's recommendation on application #4927. They claimed a pneumatic conveying system as part of the air pollution control facility. Staff did not allow the cost because its primary function is material handling within the manufacturing process, and it does not meet the definition of an air-cleaning device as required by statute.

Commissioner Van Vliet asked if Willamette Industries was in violation of any pollution laws at the time of the upgrade to the facility. Jim Aden of Willamette Industries indicated he could not speak to that specific question though his general knowledge was they were in compliance at the Eugene facility before it went from particleboard to medium density fiberboard (MDF) and, thus, was not in violation. Ms. Vandehey said staff had reviewed the December 8, 1999, letter and it did not change the recommendation.

Commissioner Van Vliet noted the facility on application #4934 was a replacement and asked Willamette Industries if they would have installed the facility if they were not getting a tax credit. Ms. Vandehey clarified that only one component (ET-1) was a replacement, not the entire claimed facility. The applicant discussed the new dryers and their function. Chair Eden asked if the replacement cost was removed from the facility cost. Ms. Vandehey stated that the entire amount was not subtracted only the non-allowable amount according to statute and rule.

Commissioner Van Vliet asked Willamette Industries if the facility in application #4978 was installed due to a requirement imposed by LRAPA and if they were in violation. Maureen Weathers of Willamette Industries indicated there was an SFO.

Commissioner Van Vliet referenced the non-allowable costs in application #4986, specifically what appeared to be an inflated facility cost. Ms. Weathers indicated the claimed facility was part of a larger project and there may have been a misinterpretation in terms of what was claimed and what was not. Willamette Industries did not dispute the reviewer's representation of the allowable versus non-allowable costs since the final facility cost was correct.

Ms. Vandehey asked the Commission to remove Cascade General, Inc.'s application #5223 from the staff report for consideration at this time.

Commissioner Reeve asked how the cost savings are accounted for in Arden, Inc.'s application #5243 and if there is a threshold that the Department has to surpass before there is an impact on the percent allocable. It was explained that the cost savings are considered in the return-on-investment calculation; however, in this application the cost savings did not make an impact on the percentage allocable to pollution control.

Regarding application #5274 from Leroy and Lowell Kroft, Chair Eden asked if it was true that the animal feed has no value, if it was not being sold to somebody, or if somebody was not being charged for hauling it off? The reviewer for this application did not place a value on it. Chair Eden asked staff to verify this in the future for grass-seed-cleaning facilities, explaining that in her experience it does have an animal-feed value. Ms. Vandehey agreed to this direction.

In considering application #5329 from Bryce Cruickshank, Commissioner Bennett asked how facilities that market materials report their profit. Ms. Vandehey said it was reported in their annual cash flow, which is part of the return on investment (ROI) consideration. If the ROI is high enough then the percentage allocable to pollution control will be reduced. She clarified that this was the method for facilities costing over \$50,000.

Commissioner Van Vliet described two factors that have implications on how people are going to look at tax credits in the future.

- 1) If costs are thrown into the pot that are not allowable or do not contribute to pollution control
- 2) If applicants claim a facility that would have ordinarily been installed without any tax credits

Ms. Vandehey discussed the trend for accounting firms to solicit companies to develop their tax credit applications and partially basing their fee on the tax credit they could obtain. This over-inflated cost is a challenge for the reviewers.

Ms. Vandehey committed to developing a clearer presentation when Chair Eden stated the calculation on UST applications is confusing.

Commissioner Reeve moved to approve items in Attachment B recommended for approval with the exception of the Willamette Industries applications and application #5233. Commissioner Bennett seconded the motion and Director Marsh polled the Commission: Commissioner Bennett, yes; Commissioner Malarkey, yes; Commissioner Van Vliet, yes; Commissioner Reeve, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

Commissioner Reeve moved to approve the Willamette Industries applications as recommended by the Department with the changes in the figures on application #4792. Commissioner Malarkey seconded the motion and Director Marsh polled the Commission: Commissioner Reeve, yes; Commissioner Malarkey, yes; Commissioner Bennett, yes; Chair Eden, yes; and Commissioner Van Vliet, abstained. The motion carried with four "yes" votes.

DENIALS

There had been no contacts from the applicants regarding the denials. Commissioner Van Vliet moved to deny applications #4714 and #4845 as recommended by staff. Commissioner Reeve seconded the motion and Director Marsh polled the Commission: Commissioner Van Vliet, yes; Commissioner Reeve, yes; Commissioner Malarkey, yes; Commissioner Bennett, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

REJECTIONS

Ms. Vandehey stated the Department recommends the Commission reject application #4570 from Willamette Industries and application #4864 from Georgia Pacific because the applicants submitted the applications over two years after their facility was substantially completed.

Willamette Industries does not agree with the Department's recommendation to reject application #4570. She added the tax credit statute does not allow staff to allow an exception to the deadline for filing an application. Staff is very supportive of the role this facility plays in lightening the load on our landfills; however, the merits of the facility or if the facility would have been otherwise eligible is not the question. The question is: "Was it complete to perform its purpose?"

Prior to their December 8, 1999 letter (shown with the Review Report) the applicant argued that the facility was not substantially complete until the lease was signed, regardless of whether the lessee was operating the facility. In that letter Willamette Industries also argues that the facility was not substantially complete until the dust filter system was installed. However, the fact that the dust filter was not installed until later did not prevent the facility from operating. The applicant mentions that the Toledo Platform Scale was essential for the material recovery facility to perform its function. The scales are used to calculate payments to suppliers. Ms. Vandehey stated this new argument did not change the Department recommendation, stressing that staff and Willamette Industries agree the facility was operating for its intended purpose before December 26, 1993. Staff does not consider that the dust filter and the scales prevented the facility from operating prior to their installation.

Commissioner Eden asked what were the overriding factors in making the determination about whether construction of the facility is substantially completed? When did it begin operating verses when the lease was signed? Counsel advised the Commission that the statute and the applicable rule require the Commission reject the application if they determine it was substantially complete. That determination involves determining whether or not there was any part of it that was essential to the function or operation that was missing. In the past, the Commission has taken the view that if a facility can be operated then essential components are not missing. This was the position the Department recommended the Commission continue to take. Counsel advised that ultimately it is up to the Commission how to interpret and apply their rule. Chair Eden asked staff if the Department followed the rule in asking for additional material in time. Ms. Vandehey affirmed that staff did not ask for the additional information within the 30 days set out in the rule.

Counsel interjected that it may be helpful for the Commission to understand that the two different deadlines function differently, and the remedies for not meeting a deadline are different. If the Department fails to act in a timely manner, the remedy is to get a writ ordering the Department to act. Counsel explained the Commission cannot grant all tax credits merely because the Department fails to act in a timely fashion as this would be inconsistent with the statute. The question about what to do when the applicant fails to provide the information is a different issue. Historically and legally, the Department has taken the position that if the applicant fails to act in a timely manner, the remedy is to reject the application.

Commissioner Bennett asked if the rules had changed between 1993 and the present. He also asked if there were benefits of one set of rules over the other. Staff indicated new rules went into effect on May 1, 1998, expanding the Department's deadline to request additional information to 60 days and reducing the applicant's deadline to provide the additional information to 60 days. However, the submittal deadline did not change. The fees increased with the May 1998 rules and applicants with applications in process could choose to apply under the May 1998 rule.

Commissioner Reeve asked Willamette Industries about what happened in September 1993 and how the facility was operated. Rece Bly of Miller Nash, LLP, appearing on behalf of Willamette Industries talked about the date the lease was signed and that all essential elements for the facility were not completed until after December 30, 1993. Commission Eden asked Mr. Bly to provide a discussion of the fact that the facility was operating in September 1993. Mr. Bly stated the law does not speak in terms of operating the facility. Mr. Bly also indicated that the filter system is needed for the safety of the forklift operators. It was designed into the facility for the safety of the people working in the facility and to keep the dust off the equipment. When asked if the forklifts were operating in the building in September 1993, Mr. Bly said, "There were forklifts and it wasn't the way it was suppose to be. It didn't comply with the way the thing had been designed. They were struggling to get it up and get it the way it was suppose to be and took them an extra couple three months to get it up and running. There were forklifts but it wasn't running the way it had to and if we hadn't done what we did OSHA or somebody else would have been smashing us for operating un-safely. This is an important thing this filter. Just because you can operate it in a substandard way doesn't mean you *lose* a tax credit."

Commissioner Bennett asked about the role of the scales and when billing began. Mr. Bly said the scales determine how much to pay suppliers. He said that from Willamette's perspective, billing began January 1, 1994, because that is when the lease first went into place.

Mr. Bly said, "...There seems to be some confusion on staff's part. And first of all let me tell you that staff is not unanimous on this. Last week the man handling this file, Mr. Bree, recommended that this be approved, as it should be. This facility should be certified and he so opined last week in a memorandum. So its important that the Commission be aware of that."

Commissioner Van Vliet reiterated that he had a conflict of interest but stated this facility is probably as close to a pollution control facility of any of the tax credits presented today. Because one of the people working on the review said it should have been approved would mean it would be very difficult to defend the rejection. Ms. Vandehey said she was not aware Mr. Bree had presented an opinion to Willamette Industries and that staff had not had an opportunity to discuss this. Commissioner Reeve asked if the Commissioners had a record of the memorandum or opinion from Mr. Bree? The Commissioners confirmed they had not seen the memorandum or opinion.

The Commission explored setting the application over until a later meeting. Mr. Bly emphatically disagreed since the Department had over four years to make the decision to approve the application. Director Marsh reminded the Commission that the Department had tried to schedule this review for other meetings but Willamette Industries has not been available to come to the table. Ms. Vandehey addressed the inability to make a decision to approve the tax credit since staff did not look at the individual elements of the claimed facility because of the timing issues. Staff brought the recommendation to reject the application based upon the timing issue and did not complete an accounting review. Chair Eden said she was torn on this because of the fact that the facility began operating in September of '93. She voiced concern over the ramifications for any other decisions that might come before the Commission on the issue of what is substantially complete. On the other hand, all facilities don't get up and running 100 percent, and of all the tax credits before the Commission at this meeting, this is the facility that in a merit system deserves it. She stated that the timing issue is an unfortunate one.

A discussion of the ability of the facility to bill ensued. Commissioner Reeve asked Mr. Bly if the business was able to bill when it was operating from September to December 1993? Mr. Bly said Willamette Industries was not able to bill and did not bill for this leasehold facility until January 1, 1994, because they did not have a lease in place. Counsel clarified the question as not whether Willamette Industries could bill but whether or not the lessee that was operating the facility was able to bill. Chair Eden asked if the lessee was paid? Mr. Bly restated that Willamette Industries is the applicant and the facility was not done in Willamette's mind and wasn't ready for any kind of billing to a tenant until January 1, 1994. Counsel stated the billing dialog had been constructive because what staff is considering is the functionality in what is essential for the operator of the facility to operate the facility. Commissioner Reeve stated he believed that the statutory definition of substantially complete is clear. He thought the application should be rejected on the basis that the facility was operating; therefore it was substantially complete.

Commissioner Reeve moved to reject application #4570. Chair Eden seconded the motion and Director Marsh polled the Commission: Commissioner Van Vliet, Abstained; Commissioner Malarkey, no; Commissioner Bennett, no, Commissioner Reeve, yes; Chair Eden, yes. The motion failed. As a result of the vote, Counsel said the application should be treated as a set over where the Department would be prepared to provide testimony or submit affidavits. This tax credit application will be included in the tax credit staff report for the February 10-11, 2000, EQC meeting. If there is a memo written by Bill Bree as referenced by Mr. Bly, the Commission would like to see it before February.

A motion was made by Commissioner Reeve to reject Georgia Pacific application #4864. Commissioner Van Vliet seconded the motion and Director Marsh Polled the Commission: Commissioner Van Vliet, yes; Commissioner Reeve; Commissioner Malarkey; Commissioner Bennett, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

Transfers

Commissioner Van Vliet moved to transfer the certificates listed in Attachment E and the Addendum of the staff report. Commissioner Bennett seconded the motion and Director Marsh polled the Commission: Commissioner Van Vliet, yes; Commissioner Malarkey, yes; Commissioner Bennett, yes; Commissioner Reeve, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

Action	App. No.	Applicant	Certified Cost	Percentage	Type	Value
Approve	4789	Willamette Industries, Inc.	\$1,045,564	100%	Air	\$522,782
Approve	4792	Willamette Industries, Inc.	\$71,523	100%	Air	\$30,816
Approve	4905	Willamette Industries, Inc.	\$91,098	100%	Water	\$45,549
Approve	4906	Willamette Industries, Inc.	\$35,904	100%	Water	\$17,952
Approve	4927	Willamette Industries, Inc.	\$1,155,228	100%	Air	\$577,614
Approve	4934	Willamette Industries, Inc.	\$1,398,042	100%	Air	\$699,021
Approve	4978	Willamette Industries, Inc.	\$1,423,208	100%	Air	\$711,604
Approve	4986	Willamette Industries, Inc.	\$402,848	100%	Air	\$201,424
Approve	5020	Willamette Industries, Inc.	\$542,210	100%	Water	\$271,105
Approve	5191	Russell Oil Company	\$23,320	100%	USTs	\$11,660
PULLED	5223	Cascade General, Inc.	\$1,935,351	100%	Water	\$967,676
Approve	5227	Willamette Industries, Inc.	\$118,175	100%	Air	\$59,087
Approve	5243	Arden, Inc.	\$201,782	100%	Air	\$100,891
Approve	5255	CO-GEN II, LLC	\$687,653	100%	Air	\$343,827
Approve	5256	CO-GEN Co., LLC	\$588,507	100%	Air	\$294,254
Approve	5274	Leroy & Lowell Kropf	\$81,742	100%	Air	\$40,871
Approve	5291	Truax Harris Energy LLC	\$194,027	89%	USTs	\$86,342
Approve	5292	Truax Harris Energy LLC	\$317,343	94%	USTs	\$149,151
Approve	5293	Nadim & Lama Yaqoub	\$87,767	88%	USTs	\$38,617
Approve	5294	Exxon of Woodburn LLC	\$277,277	93%	USTs	\$128,934
Approve	5305	John Tea	\$36,000	100%	Dry Clean	\$18,000
Approve	5306	Tomlin's Auto Service	\$37,697	100%	USTs	\$18,849
Approve	5307	Delbert Folk	\$68,195	99%	USTs	\$33,757
Approve	5323	Bob VanValin Enterprises, Inc.	\$67,089	100%	USTs	\$33,545
Approve	5324	Chan T. Him	\$35,000	100%	Dry Clean	\$17,500
Approve	5325	Larry A. Isom	\$5,500	100%	Field	\$2,750
Approve	5329	Bryce D. Cruickshank	\$115,724	92%	Field	\$53,233
Approve	5334	Larry M. and Mary Lou Neher	\$47,995	100%	Field	\$23,998
Approve	5337	Clough Oil Company	\$78,988	100%	USTs	\$39,494
Approve	5339	Jim R. Titus and Freda J. Titus	\$138,404	100%	USTs	\$69,202
Approve	5340	Clough Oil Company	\$26,019	100%	USTs	\$13,009

Approve	5341	Larry Craig	\$83,794	87%	USTs	\$36,450
Approve	5342	Ferrell's Fuel Network, Inc.	\$88,613	99%	USTs	\$43,863
Deny	4714	Portland General Electric	\$4,859	100%	Water	\$2,430
Deny	4845	Integrated Device Technology	\$801,096	100%	Air	\$400,548
SET	4570	Willamette Industries, Inc.	\$2,596,818	100%	Solid Waste	\$1,298,409
Reject	4800	Willamette Industries, Inc.	\$110,418	100%	Air	\$55,209
Reject	4864	Georgia-Pacific Corp.	\$538,859	100%	Air	\$269,430

C. Tidewater Barge Lines Tax Credit Applications

Larry Knudsen discussed the issue before the Commission as a choice of whether to issue a tax credit to Tidewater Barge as settlement of a pending Court of Appeals case. He advised the Commission that if they made that motion, he would ask that it be subject to the execution of a written formal settlement agreement between Tidewater and the EQC. The settlement needed to provide for the dismissal of the court case upon acceptance of the certificate by the Department of Revenue. He also advised the Commission to authorize the Director to sign the settlement agreement and certificate on their behalf.

Commissioner Van Vliet made a motion to accept the offer of settlement and Director Marsh be authorized to sign the settlement and certificate on the Commission's behalf. Commissioner Bennett seconded the motion and Director Marsh polled the Commission: Commissioner Bennett, yes; Commissioner Malarkey, yes; Commissioner Bennett, yes; Commissioner Reeve, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

B. Rule Adoption of Proposed Rules Establishing Review and Acceptance Criteria for New or Innovative Technologies and Materials for Application in the On-Site Program.

Stephanie Hallock, Interim Administrator for the On-Site Sewage Disposal Program, and Dennis Illingworth On-site program staff presented a summary of the staff report. Written testimony that had been submitted during the extension of public comment was reviewed. The Commission asked questions about the alternatives and the performance testing protocol. Commissioner Malarkey pointed out a spelling error in the proposed rules. Counsel recommended an implementation date of March 1, 2000.




A motion was made by Commissioner Van Vliet to adopt the proposed rule package as presented with the spelling correction and implementation date of March 1, 2000. Commissioner Malarkey seconded the motion and Director Marsh polled the Commission: Commissioner Bennett, yes; Commissioner Malarkey, yes; Commissioner Reeve, yes; Commissioner Van Vliet, yes; and Chair Eden, yes. The motion carried with five "yes" votes.

There being no further business, the meeting was adjourned at 11:30 a.m.

Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item H
July 14, 2000 Meeting

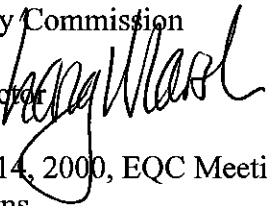
Title: Tax Credit Applications		
Summary: Staff recommends the following actions regarding tax credits:		
	<u>Certified Cost</u>	<u>Value</u>
Approve		
<i>Pollution Control Facility Tax Credit</i>		
Air (1 application)	\$44,925	\$22,463
Solid Waste (1 application)	\$128,030	\$64,015
USTs (5 applications)	\$799,025	\$374,955
Water (1 application)	\$47,270	\$23,635
<i>Pollution Control Facility Tax Credit (8 applications)</i>	<u>\$1,019,250</u>	<u>\$485,067</u>
 <i>Pollution Prevention Tax Credit</i>		
Perc (1 application)	\$25,530	\$12,765
<i>Pollution Prevention Tax Credit (1 application)</i>	<u>\$25,530</u>	<u>\$12,765</u>
 Approve (9 applications)	 <u>\$1,044,780</u>	 <u>\$497,832</u>
Approve issuance of tax credit certificates for the applications presented in Attachment B. Transfer Certificate as presented in Attachment C.		
		
Report Author	Division Administrator	Director

June 26, 2000

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

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 26, 2000
To: Environmental Quality Commission
From: Langdon Marsh, Director 
Subject: Agenda Item H, July 14, 2000, EQC Meeting
Tax Credit Applications

Statement of the Need for Action

This staff report presents the staff analysis of pollution control facility, and pollution prevention 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.
- A certificate presented for transfer is presented in Attachment C.

According to the Commission's direction, this letter calls attention to applications that may require background information not contained in the Review Reports, or applications where staff needs the Commission's policy direction.

The Staff Report includes a Draft Topic Discussion of the filing deadline at the request of the Commission.

Background APPROVALS: Attachment B

The applications presented for approval in Attachment B:

1. Meet the eligibility requirements for certificate issuance for the Pollution Control Facility Tax Credit and the Pollution Prevention Tax Credit programs.
2. Do not represent any Preliminary Applications for the Pollution Control Tax Credit Program.
3. Are organized in application number sequence.

Background TRANSFERS – Attachment C

When the Commission approves a certificate transfer they revoke the original certificate as of the date the facility was sold or exchanged. The approval also includes the reissue of the certificate to the new certificate holder. The actual remaining certificate value is subject to the verification by the Department of Revenue. The certificate is reissued under the same certificate number. It will show both the original conditions of issue and the new conditions of issue. This allows the Department of Revenue to easily track the certificates.

On June 7, 2000, Miller's Sanitary Service, Inc. requested the transfer of Certificate Number 4063 issued on December 11, 1998, from Miller's Sanitary Service, Inc. to USA Waste of Oregon, Inc. as presented in Attachment C of the Department's Staff Report. This is pursuant to ORS 315.304 as administered by the Department of Revenue.

Background TOPIC DISCUSSION -- Attachment D

The Commission asked the Department to provide guidelines on how staff determines that a pollution control tax credit application is filed in a timely manner. The draft guidelines are presented in Attachment D.

Conclusions

The recommendations for action on the attached applications are consistent with statutory provisions and administrative rules related to the pollution control facility and the pollution prevention 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 and transfer the certificate presented in Attachment C of the Staff Report.

Intended Follow-up Actions

Staff will notify applicants of the action taken by the Environmental Quality Commission. The Department will notify applicants 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. Transfer
- D. Topic Discussion: Deadline for Filing

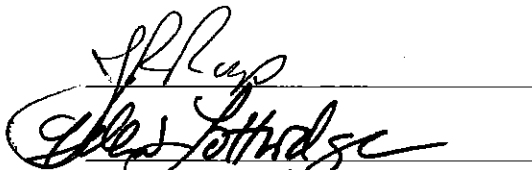
Reference Documents (available upon request)

- 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: June 26, 1999

Attachment A

Summary

App No.	Department Recommendation	Media	Applicant	Certified Cost	Percent Allocable	Value
5330	Approve	USTs	Guernsey	\$134,312	92%	\$61,784
5363	Approve	Solid	United Disposal	\$128,030	100%	\$64,015
5365	Approve	USTs	S.M.B. Property	\$125,652	86%	\$54,030
5401	Approve	USTs	Ivy's Tumalo Store	\$148,426	93%	\$69,018
5405	Approve	Air	Blount, Inc.	\$44,925	100%	\$22,463
5407	Approve	Perc	Arena Corporation	\$25,530	100%	\$12,765
5410	Approve	USTs	Everett E. Miles	\$148,426	93%	\$69,018
5411	Approve	Water	Package Containers,	\$47,270	100%	\$23,635
5412	Approve	USTs	Cain Petroleum, Inc.	\$242,209	100%	\$121,105

Attachment B

Approvals



Tax Credit Review Report

EQC 0007

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: **Retail Gasoline Station**
Taxpayer ID: **93-1187443**

The applicant's address is:

P O Box 1730
The Dalles OR 97058

Technical Information

The applicant installed pollution control equipment to meet EPA requirements for underground storage tanks.

Director's
Recommendation: **APPROVE**

Applicant **Guernsey Development, Inc.**
Application No. **5330**
Eligible Facility Cost **\$134,312**
Percentage Allocable **92%**
Useful Life **10 years**

Facility Identification

The certificate will identify the facility as:

**Two doublewall fiberglass/steel
underground storage tanks, doublewall
flexible plastic piping, spill containment
basins, automatic tank gauge system with
interstitial monitoring, sumps and
automatic shutoff valves.**

The applicant is the owner of **DEQ Facility ID
11704** located at:

Grand Central Travel Stop
Hwy 97 & Interstate 84
Rufus, OR 97050

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **installation** is to prevent, control or reduce a substantial quantity of air and water pollution.
- ORS 468.155 (1)(b)(A) The pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468A.005.
- ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of the baghouse which meet the air cleaning device definition in ORS 468A.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>	11/29/99
<i>Application Complete and Ready to Process (with extension)</i>	04/17/00
<i>Construction Started</i>	07/01/97
<i>Construction Completed</i>	12/05/97
<i>Facility Placed into Operation</i>	12/20/97

Facility Cost

	Claimed	\$134,805
Less Ineligible Costs – Portion of tank gauge system not used for pollution control (10%).		(\$493)
	Eligible	\$134,312

The department approved the applicant’s waiver of an independent accounting review because invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

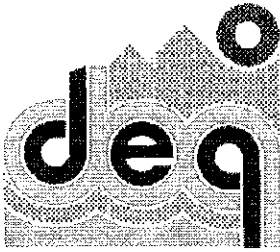
The facility cost exceeds \$50,000. According to ORS 468.190(1), the following factor was considered in determining the percentage of the facility cost allocable to pollution control.

The cost for non-corrosion protected portion of tank and/or piping system costs is \$10,312. Therefore, **8%** of the eligible facility cost is not allocable to pollution control leaving the remaining **92%** allocable.

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 0007

Director's
Recommendation: **APPROVE**

Applicant: **United Disposal Service, Inc.**
Application No.: **5363**
Facility Cost: **\$128,030**
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 collection and
recycling facility**
Taxpayer ID: **93-0625022**

The applicant's address is:

**2215 N. Front Street
Woodburn, OR 97071**

Facility Identification

The certificate will identify the facility as:

**2,360 Schaefer 64 gallon Compost
collection containers**

The applicant is the owner of the facility located
at:

**2215 N. Front Street
Woodburn, OR 97071**

Technical Information

These collection containers will be used solely to handle source separated yard debris from residential waste collection accounts in Marion County. These containers will be serviced by a dedicated collection truck and the source separated yard debris will be taken to a composting facility where it is converted into a product of real economic value.

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 solely for collecting source separated compostable yard debris.
- OAR 340-16-025(g)(B) **Replacement:** These new containers will be used for existing and expanded yard debris collection service where yard debris collection containers were not provided by the applicant. These new containers do **not** replace any previously certified equipment.

ORS 468.155 (1)(b)(D) These containers are used to collect source separated yard debris and are part of a **material recovery process** that 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>01/21/00</u>
<i>Application Substantially Complete</i>	<u>01/27/00</u>
<i>Construction Started</i>	<u>08/31/97</u>
<i>Construction Completed</i>	<u>05/22/98</u>
<i>Facility Placed into Operation</i>	<u>07/01/98</u>

Facility Cost

Facility Cost	<u>\$128,030</u>
Eligible Facility Cost	<u>\$128,030</u>

The facility cost exceeds \$50,000. Theodore R. Ahre, CPA provided certification of the cost of the claimed facility. The applicant also provided copies of the invoice and check for purchase of the collection containers.

Facility Cost Allocable to Pollution Control

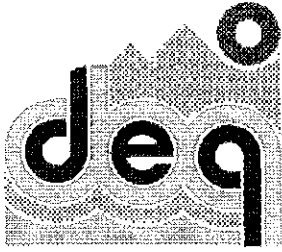
In accordance with ORS 468.190(1), since the facility cost exceeds \$50,000, the factors listed below were considered in determining the percentage of the facility cost allocable to pollution control. The percentage of the facility cost allocable to pollution control is **100%**.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	These containers are used to collect source separated yard debris that is subsequently processed into 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 5 years. The calculated return on investment for this truck is 0%. 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	All saving and cost were incorporated into the calculation of the return on investment.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors were considered..

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.

Reviewer: William R Bree



Tax Credit Review Report

EQC 0007

Pollution Control Facility: USTs

Final Certification

ORS 468.150 -- 468.190

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

Applicant Identification

Organized As: **Limited Liability Corporation**

Business: **Retail Gasoline Station**

Taxpayer ID: **93-1245864**

The applicant's address is:

**1111 Mohawk Blvd.
Springfield OR 97477**

Technical Information

The applicant installed pollution control equipment to meet EPA requirements for underground storage tanks.

Director's

Recommendation: **APPROVE**

Applicant **SMB Property Holdings, LLC**

Application No. **5365**

Eligible Facility Cost **\$125,652**

Percentage Allocable **86%**

Useful Life **10 years**

Facility Identification

The certificate will identify the facility as:

Two doublewall fiberglass/steel underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system with overflow alarm, line leak detectors, monitoring wells, sumps, oil/water separator, automatic shutoff valves and Stage II vapor recovery piping.

The applicant is the owner of DEQ Facility ID **11750** located at:

**Green Acres Chevron Service Station
1033 Green Acres Road
Eugene, OR 97408**

Eligibility

- ORS 468.155 (1)(a) The **principal purpose** of this **installation** is to prevent, control or reduce a substantial quantity of air and water pollution.
- ORS 468.155 (1)(b)(A) The pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468A.005.
- ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of the baghouse which meet the air cleaning device definition in ORS 468A.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>	01/26/00
<i>Application Complete and Ready to Process</i>	05/24/00
<i>Construction Started</i>	08/01/97
<i>Construction Completed</i>	01/26/98
<i>Facility Placed into Operation</i>	01/26/98

Facility Cost

	Claimed	\$126,364
Less Ineligible Costs – Portion of tank gauge system not used for pollution control (10%).		(\$712)
	Eligible	\$125,652

The department approved the applicant's waiver of an independent accounting review because invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

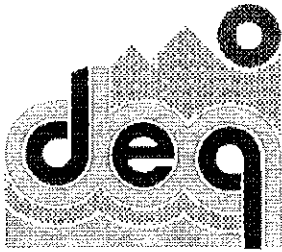
The facility cost exceeds \$50,000. According to ORS 468.190(1), the following factor was considered in determining the percentage of the facility cost allocable to pollution control.

The cost for non-corrosion protected portion of tank and/or piping system costs is \$17,437. Therefore, **14%** of the eligible facility cost is not allocable to pollution control leaving the remaining **86%** allocable.

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 0007

Director's
Recommendation: **APPROVE**

Applicant **Ivy's Tumalo Store**
Application No. **5401**
Eligible Facility Cost **\$148,426**
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: **a Joint Venture**

Business: **Retail Gas station and Store**

Taxpayer ID: **545-44-2194**

The applicant's address is:

64683 Cook Ave.

Bend OR 97701

Facility Identification

The certificate will identify the facility as:

Three doublewall fiberglass/steel underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, turbine leak detectors, overfill alarm, sumps and automatic shutoff valves.

The applicant is the owner of **DEQ Facility ID 7453** located at:

64683 Cook Ave.

Bend OR 97701

Technical Information

The applicant installed pollution control equipment to meet EPA requirements for underground storage tanks.

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.

ORS 468.155 (1)(b)(A) The pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468A.005.

ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of the baghouse which meet the air cleaning device definition in ORS 468A.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>03/24/00</u>
<i>Application Complete and Ready to Process</i>	<u>05/22/00</u>
<i>Construction Started</i>	<u>12/01/98</u>
<i>Construction Completed</i>	<u>04/01/99</u>
<i>Facility Placed into Operation</i>	<u>04/01/99</u>

Facility Cost

	Claimed	\$99,123
Less Ineligible Costs -- Portion of tank gauge system not used for pollution control (10%).		(\$720)
	Eligible	<u>\$98,403</u>

The department approved the applicant's waiver of an independent accounting review because invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

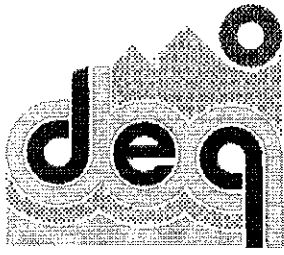
The facility cost exceeds \$50,000. According to ORS 468.190(1), the following factor was considered in determining the percentage of the facility cost allocable to pollution control.

The cost for non-corrosion protected portion of tank and/or piping system costs is \$12,910. Therefore, 13% of the eligible facility cost is not allocable to pollution control leaving the remaining 87% allocable.

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 0007

Director's
Recommendation: **APPROVE**

Applicant **Blount, Inc.**
Application No. **5405**
Facility Cost **\$44,925**
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

Organization: **C corporation**
Business: **Manufacturer of chainsaw
metal products.**
Taxpayer ID: **63-0593908**

The applicant's address is:

**P.O. Box 22127
Portland, OR 97269-2127**

Facility Identification

The certificate will identify the facility as:

A KCH Hedron Scrubber

The applicant is the owner of the facility located at:

**4909 SE International Way
Milwaukie, OR 97222**

Technical Information

The claimed facility consists of a KCH Hedron extended pack bed scrubber, Model #Hedron HV3-12 Serial #20170 with a KCH NH33 fan Serial # 20170, and one duct transition added to an existing duct exhaust. It is used to scrub hydrochloric acid (HCl) fumes from the electrochemical milling process.

Previously, a portion of the exhaust was scrubbed with a 2-stage chevron blade mist eliminator and the balance was exhausted with no control, emitting an estimated 340 pounds per year of HCl. The estimated reduction in emissions is 58% based on a scrubber efficiency of 90%, or a 10% improvement in the previous scrubbed exhaust and a 90% improvement in the previously unscrubbed portion.

Waste disposal methods have not changed. Wastewater is treated before being discharged to the POTW. Solid wastes are shipped to Arlington.

The system is considered the best available technology for this application.

Eligibility

ORS 468.155 (1)(a)(B) The sole purpose of this installation of equipment is to control a substantial quantity of air pollution.

OAR 340-016-0070 (2)(m) The wet scrubber replaced a previously existing facility installed in 1978 and a pollution control facility certificate was **not issued**.

ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of a wet scrubber which meets the air cleaning device definition in ORS 468A.005.

Timeliness of Application

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

<i>Application Received</i>	4/10/00
<i>Additional Information Requested</i>	5/16/00
<i>Additional Information Received</i>	5/18/00
<i>Application Substantially Complete</i>	5/25/00
<i>Construction Started</i>	10/29/99
<i>Construction Completed</i>	10/31/99
<i>Facility Placed into Operation</i>	10/31/99

Facility Cost

Claimed Cost	\$ 44,925
Eligible Cost	\$ 44,925

An independent accounting review was not required because the facility cost does not exceed \$50,000. Copies of invoices were provided that substantiated the claimed facility cost.

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%.

Other Facilities Certified to Applicant at Location

App.No.	Description of Facility	Date of Issue
532	PLATING WASTE CHEMICAL RECOVERY AND REUSE SYSTEM.	7/19/74
1698	AN ELECTROSTATIC POWDER COATING LINE.	9/14/84
1699	FABCO LOW MICRON SEPARATOR MODEL 10, SCRUBBER, LOCATED ON THE WASTE TREATMENT BUILDING.	8/10/84
1700	THIS SYSTEM IS A MODERIZATION OF AN EXISTING HEAVY METAL PRETREATMENT SYSTEM.	11/2/84
4124	FILTRATION SYSTEM	1/29/94
4950	Chrome plating exhaust and scrubber system, Model KCH Spectra-U10000 chemical mist eliminator.	6/11/98

Compliance

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

ACDP, No. 03-2624, issued 08-01-98

NPDES, No. 101162, issued 11-05-93

Storm Water, No. 12002, issued 6-30-97

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

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT
POLLUTION PREVENTION PILOT PROGRAM

1. Applicant

Arena Corp.
6120 Churchill Downs
West Linn, OR 97068

The applicant owns and operates a clothes cleaning shop located 6120 Churchill Downs West Linn, Oregon.

Application was made for tax credit for an air pollution prevention facility.

2. Description of Facility

The claimed facility is a new multiprocess wet cleaning system which was installed as a replacement for approximately 60% of the cleaning capacity of the existing perc dry-cleaning machine. The wet cleaning system reduces the emissions of perc by cleaning the clothes with water and detergents instead of dry-cleaning solvent.

Claimed Facility Cost: \$ 25,530

3. Procedural Requirements

The facility is governed by ORS 468A.095 through 468A.098, and by OAR Chapter 340, Division 16.

The pollution prevention facility met all regulatory deadlines in that:

Installation of the facility was substantially completed on December 28, 1999. The application for final certification was received by the Department on April 18, 2000. The application was found to be complete on May 26, 2000, within one year of installation of the facility.

4. Evaluation of Application

Rationale For Eligibility

- (1) The pollution prevention facility is eligible because a multiprocess wet cleaning system is a recognized alternative to perc dry-cleaning and it was installed as a replacement for part of the capacity of an existing perc machine. Also, the new process is not subject to 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 entire facility qualifies as a small area source since perc use is less than 140 gallons per year

The pollution prevention facility was installed between January 1, 1996 and December 31, 1999.

The facility does not qualify for a pollution control tax credit under ORS 468.165 and 468.170.

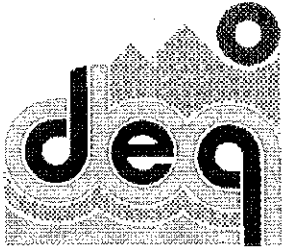
- (2) The facility installed a multiprocess wet cleaning system as a replacement for part of the capacity of the existing perc dry-cleaning machine.
- (3) The facility is registered with the EPA under the Clean Air Act Title III National Emissions Standards for Hazardous Air Pollutants.

5. Summation

- a. The 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 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 \$ 25,530 be issued for the facility claimed in Tax Credit Application No. 5407.



Tax Credit Review Report

EQC 0007

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: **93-0771776**

The applicant's address is:

2175 Highway 101
Florence OR 97439

Technical Information

The applicant installed pollution control equipment to meet EPA requirements for underground storage tanks.

Eligibility

ORS 468.155 (1)(a) The **principal purpose** of this **installation** is to prevent, control or reduce a substantial quantity of air and water pollution.

Director's
Recommendation: **APPROVE**

Applicant **Everett E. Miles**
Application No. **5410**
Eligible Facility Cost **\$148,426**
Percentage Allocable **93%**
Useful Life **10 years**

Facility Identification

The certificate will identify the facility as:

Two doublewall fiberglass/steel underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, turbine leak detectors, overflow alarm, sumps, monitoring wells, automatic shutoff valves and Stage II vapor recovery piping.

The applicant is the owner of **DEQ Facility ID 11793** located at:

Miles Texaco
2185 Highway 101
Florence, OR 97439

- ORS 468.155 (1)(b)(A) The pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468A.005.
- ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of the baghouse which meet the air cleaning device definition in ORS 468A.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>04/27/00</u>
	<i>Application Complete & Ready to Process</i>	<u>05/30/00</u>
	<i>Construction Started</i>	<u>02/01/98</u>
	<i>Construction Completed</i>	<u>05/01/98</u>
	<i>Facility Placed into Operation</i>	<u>05/01/98</u>

Facility Cost

	Claimed	\$148,977
Less Ineligible Costs – Portion of tank gauge system not used for pollution control (10%).		(\$551)
	Eligible	<u>\$148,426</u>

The department approved the applicant's waiver of an independent accounting review because invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

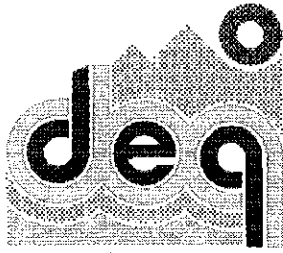
The facility cost exceeds \$50,000. According to ORS 468.190(1), the following factor was considered in determining the percentage of the facility cost allocable to pollution control.

The cost for non-corrosion protected portion of tank and/or piping system costs is \$9,836. Therefore, 7% of the eligible facility cost is not allocable to pollution control leaving the remaining 93% allocable.

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 0007

Pollution Control Facility: Water Final Certification

ORS 468.150 -- 468.190

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

Applicant Identification

Organized as: C corporation

Business: **paper converting production
plant**

Taxpayer ID: 93-0351499

The applicant's address is:

**777 N.E. 4th Avenue
Canby, OR 97013**

Director's Recommendation: **APPROVE**
Applicant: **Package Containers, Inc.**
Application No.: **5411**
Facility Cost: **\$47,270**
Percent Allocable: **100%**
Useful Life: **10 years**

Facility Identification

The certificate will identify the facility as:

Beckart Batch Treatment System

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

**777 N.E. 4th Avenue
Canby, OR 97013**

Technical Information

The claimed facility consists of a new 300-gallon batch filter press used to treat wastewater from the paper production plant. The system was provided and installed by Beckart Environmental, Inc. It is sized to treat 115 gallons per day of glue pot water and 40 gallons per day of ink wash water. The system separates water-based waste into two disposable waste products: a clean water stream and a dry cake of solid waste.

Prior to the installation, the wastewater was held in containers until the solids settled, then the water was discharged into the Canby POTW. However, the city of Canby water treatment staff was concerned with possible interference of Ultra Violet disinfection, caused by the pass through of dyes received from the discharge and requires the applicant to treat their wastewater. Since the installation of the new system, the city has seen no detectable color changes in the influent or effluent waste streams. The average pH is now 7.25, BOD levels have dropped 83%, TDS levels have dropped 90%, TSS levels are non-detectable, COD levels have dropped 98.5%, and all metal levels have been reduced.

Eligibility

- ORS 468.155 (1)(a)(B) The **principal purpose** of this **new equipment** is to comply with DEQ requirements to **prevent** water pollution. The requirement is imposed by the applicants Industrial Wastewater Discharge Permit No. 003 with the City of Canby. The City of Canby's Industrial Pretreatment Program is mandated by the EPA. Metal discharges (arsenic, cadmium, chromium, copper, cyanide, lead, nickel, zinc, and phenol) are limited, and the discharge pH must be more than 6 and less than 10.
- ORS 468.155 (1)(b) The control is accomplished by the elimination of industrial waste and the use of 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).

<i>Application Received</i>	<u>4/27/00</u>
<i>Application Substantially Complete</i>	<u>5/25/00</u>
<i>Construction Started</i>	<u>9/1/99</u>
<i>Construction Completed</i>	<u>10/22/99</u>
<i>Facility Placed into Operation</i>	<u>10/22/99</u>

Facility Cost

Claimed Facility Cost	<u>\$ 47,270</u>
Eligible Facility Cost	<u>\$ 47,270</u>

The claimed facility cost does not exceed \$50,000. Copies of invoices were provided to substantiate the claimed facility cost.

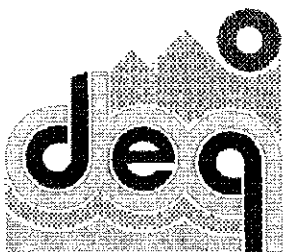
Facility Cost Allocable to Pollution Control

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, discharge fees were not considered. The percentage of the facility cost allocable to pollution control is **100%**.

Compliance

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. The following DEQ permits have been issued to facility: Industrial Wastewater Discharge Permit No. 003 with the City of Canby, issued December 31, 1991.

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 0007

Pollution Control Facility: USTs
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized As: **C Corporation**
Business: **Retail Gas Station**
Taxpayer ID: **93-0132695**

The applicant's address is:

2624 Pacific Ave.
Forest Grove OR 97116

Facility Identification

The certificate will identify the facility as:

Two doublewall fiberglass/steel underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system with overflow alarm, line/turbine leak detectors, sumps, automatic shutoff valves and Stage II vapor recovery.

The applicant is the owner of **DEQ Facility ID 11852** located at:

Oregon City Chevron
19055 Beaver Creek Rd.
Oregon City, OR 97045

Technical Information

The applicant installed pollution control equipment to meet EPA requirements for underground storage tanks.

Eligibility

ORS 468.155 (1)(a) The **principal purpose** of this **installation** is to prevent, control or reduce a substantial quantity of air and water pollution.

Director's
Recommendation: **APPROVE**

Applicant **Cain Petroleum Inc.**
Application No. **5412**
Eligible Facility Cost **\$241,609**
Percentage Allocable **95%**
Useful Life **10 years**

- ORS 468.155 (1)(b)(A) The pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468A.005.
- ORS 468.155 (1)(b)(B) The control is accomplished by the elimination of air pollution and the use of the baghouse which meet the air cleaning device definition in ORS 468A.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>	05/05/00
	<i>Application Complete and Ready to Process</i>	05/30/00
	<i>Construction Started</i>	01/20/98
	<i>Construction Completed</i>	05/18/98
	<i>Facility Placed into Operation</i>	05/18/98

Facility Cost

	Claimed	\$242,209
Less Ineligible Costs – Portion of tank gauge system not used for pollution control (10%).		(\$600)
	Eligible	\$241,609

The facility cost was greater than \$50,000 but less than \$500,000. Therefore, Tim C. Wagner, a certified public accountant, performed an accounting review according to Department guidelines on behalf of the Applicant.

Facility Cost Allocable to Pollution Control

The facility cost exceeds \$50,000. According to ORS 468.190(1), the following factor was considered in determining the percentage of the facility cost allocable to pollution control.

The cost for non-corrosion protected portion of tank and/or piping system costs is \$11,907. Therefore, 5% of the eligible facility cost is not allocable to pollution control leaving the remaining 95% allocable.

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

Attachment C

Transfer



WASTE MANAGEMENT

7227 NE 55th Avenue
Portland, OR 97218
(503) 331-2221
(503) 331-2219 Fax

June 7, 2000

Ms. Maggie Vanderhey
Tax Credit Coordinator
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

**Re: Transfer of Miller's Sanitary Service, Inc. Pollution Control Facility
Certificate, No. 4063**

Dear Ms. Vanderhey:

This letter is a request to transfer Pollution Control Facility Certificate No. 4063 from Miller's Sanitary Service, Inc. to USA Waste of Oregon, Inc. The new owner is USA Waste of Oregon, Inc., 7227 NE 55th Avenue, Portland, OR 97218, (503) 331-2221, Taxpayer Identification No: 930612655.

I have enclosed a copy of the Pollution Control Facility Certificate for Miller's Sanitary Service, Inc. as Attachment A. A Copy of the Articles of Merger and Plan of Merger is Attachment B. I was an officer in the former Miller's Sanitary Service, Inc. The transfer of ownership was effective March 24, 2000.

If you have any additional information, please let me know. Otherwise, please send me a copy of the transferred certificate when it is completed. Thank you very much.

Very truly yours,

Jonathan M. Argin
Vice-President, Northwest Region

Enclosures

STATE OF OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY POLLUTION CONTROL FACILITY CERTIFICATE	Certificate No: 4063 Date of Issue: 12/11/1998 Application No: 5078
---	---

ISSUED TO: Miller's Sanitary Service, Inc. 5150 SW Alger Avenue Beaverton, OR 97005	LOCATION OF POLLUTION CONTROL FACILITY: 5150 SW Alger Avenue Beaverton, OR 97005
ATTENTION: Thomas Miller, President	

Operating as the owner of the facility. A C corporation.

DESCRIPTION OF POLLUTION CONTROL FACILITY: **One doublewall fiberglass lined steel aboveground tank (with two compartments) with overfill prevention and interstitial leak detection equipment.**

TYPE OF POLLUTION CONTROL FACILITY: USTs

DATE FACILITY COMPLETED: 10/06/1997 PLACED INTO OPERATION: 09/30/1997

ACTUAL COST OF POLLUTION CONTROL FACILITY: **\$42,742.00**

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: **100%**

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed: Carol Whipple (Carol Whipple, Chair)

Approved by the Environmental Quality Commission on 12/11/1998.



Phone: (503) 988-2200
Fax: (503) 378-4381
Secretary of State
Corporation Division
265 Capital St. NE, Suite 151
Salem, OR 97310-1327

Articles of Merger
For official use only

Check the appropriate box below:

- BUSINESS/PROFESSIONAL/NONPROFIT CORPORATION
FOR PARENT AND 90% OWNED SUBSIDIARY WITHOUT SHAREHOLDER APPROVAL

FILED

MAR 31 2000

OREGON SECRETARY OF STATE

Registry Number: 095115-10

Attach Additional Sheet if Necessary
Please Type or Print Legibly in Black Ink

BUSINESS/PROFESSIONAL/NONPROFIT CORPORATION ONLY

1) NAMES OF THE CORPORATIONS PROPOSING TO MERGE

A.
B.

2) NAME OF THE SURVIVING CORPORATION

Check here if there is a name change in this plan of merger.

3) A COPY OF THE MERGER PLAN IS ATTACHED.

4) CHECK THE APPROPRIATE STATEMENTS FOR CORPORATION A AND CORPORATIONS B BELOW.

Corporation A

- Shareholder/membership approval was not required. The plan was approved by a sufficient vote of the board of directors.
Shareholder/membership approval was required. The vote was as follows:

If Corporation A is a business/professional corporation:

Table with 4 columns: Class or series of shares, Number of votes entitled to be cast, Number of votes cast FOR, Number of votes cast AGAINST

If Corporation A is a nonprofit corporation:

Table with 5 columns: Class(es) entitled to vote, Number of members entitled to vote, Number of votes entitled to be cast, Number of votes cast FOR, Number of votes cast AGAINST

Corporation B

- Shareholder/membership approval was not required. The plan was approved by a sufficient vote of the board of directors.
Shareholder/membership approval was required. The membership vote was as follows:

If Corporation B is a business/professional corporation:

Table with 4 columns: Class or series of shares, Number of votes entitled to be cast, Number of votes cast FOR, Number of votes cast AGAINST

If Corporation B is a nonprofit corporation:

Table with 5 columns: Class(es) entitled to vote, Number of members entitled to vote, Number of votes entitled to be cast, Number of votes cast FOR, Number of votes cast AGAINST

FOR PARENT AND 90% OWNED SUBSIDIARY WITHOUT SHAREHOLDER APPROVAL

6) NAME OF PARENT CORPORATION USA Waste of Oregon, Inc.

Oregon Registry Number 095115-10

6) NAME OF SUBSIDIARY CORPORATION Miller's Sanitary Service, Inc.

Oregon Registry Number 089419-16

7) NAME OF SURVIVING CORPORATION USA Waste of Oregon, Inc.

8) COPY OF PLAN

A copy of the plan of merger setting forth the manner and basis of converting shares of the subsidiary into shares, obligations, or other securities of the parent corporation or any other corporation or into cash or other property is attached.

9) CHECK THE APPROPRIATE BOX

- A copy of the plan of merger or summary was mailed to each shareholder of record of the subsidiary corporation on or before 19___.
The mailing of a copy of the plan or summary was waived by all outstanding shares.

10) EXECUTION

Printed Name

Robert G. Simpson

Signature of Robert G. Simpson

Title

Vice President

11) CONTACT NAME

Nancy Pedersen

DAYTIME PHONE NUMBER

(713) 226-1146

CR117 (Rev. 8/06)

Fees section with handwritten number 15033126 and instructions for fee payment.

Attachment D

Topic Discussion

**DRAFT TOPIC
DISCUSSION:
Deadline for Filing**

This guidance document expresses the Department's interpretation of statute.

- Audience** This guidance is intended for:
- Applicants filing a pollution control facility tax credit application close to the two-year filing deadline; and
 - Reviewers of applications filed close to the two-year filing deadline.

ORS 468.165(6)

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.

Purpose of Discussion This guidance is intended to help potential applicants identify the period of time they have to file a pollution control facility tax credit application. It is also intended to clarify how the Department determines if an applicant has filed their application in a timely manner and it identifies documents that may be required to conclude that an application was filed in a timely manner.

Problem The exact date when a facility is substantially completed is frequently in debate. About 22% of the applications over \$500,000 are submitted within several weeks of the two-year deadline. Efforts to amend the law to use a more identifiable date have not been successful and attempts to clarify the filing deadline in rule have been limited by statute.

WARNING The Department will recommend that the Environmental Quality Commission reject certification of a facility for pollution control tax credit purposes 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."

Do not File Before The law provides that the application cannot be filed before the construction is substantially completed and the facility is placed in service.

Oregon Administrative Rule defines "substantial completion" but does not define "placed in service." The Department relies on the commonly understood meaning of the phrase.

Substantial Completion

OAR340-016-0010 (11)

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. "

Placed in Service

The Internal Revenue Service (IRS) defines "placed in service" as the date that an asset's owner may begin its depreciation. "The IRS considers an asset 'placed in service' when it is in a condition or state of readiness and availability for its assigned function; it is not essential that the asset be put into actual use." (Bureau of National Affairs)

Do not File After The law provides that the application must be filed within two years after construction of the facility is substantially completed.

NOTE The "Placed into Service" date above is not the same as the "Placed into Operation" date as it appears on the application and the Review Report. The former is associated with the "Do not File Before" portion of ORS 468.165(6) and the latter is associated with the "Do not File After" portion of ORS 468.165(6).

**All
Essential
Elements**

To understand the phrase "*all elements of the claimed facility which are essential to perform its purpose,*" as used in the definition of substantial completion, the interpretation of the following terms are necessary.

Facility The term "facility" as it is used in the definition of "substantial completion" does not refer to the plant site, the entire construction project or the business endeavor. It refers to pollution control facility as defined in ORS 468.155.

Purpose The term "purpose" as it is used in the definition of "substantial completion" means either the principal or sole pollution control purpose as defined in ORS 468.155 not the purpose of the business endeavor or the plant site.

Discussion

Accountants frequently interpret the date of "substantial completion" as synonymous with the definition of "placed in service" because they note the similarities between the two definitions. This interpretation is not consistent with statute and rule.

The pollution control facility tax credit laws align the filing deadline with "construction completed." For this reason, the department places more emphasis on the construction contractor's interpretation of "substantially complete" than on the accounting interpretation.

Construction contractors consider that a project is complete when the owner and contractor agree that all elements of the original scope of work have been completed. The scope of work generally defines the terms that must be met before the contractor turns over the project to the owner. The date of production start-up is beyond the point that a contractor typically considers a project is complete. Any production performance issues are generally handled separately under warranty agreements.

**Events After
Substantial
Completion**

The Department considers that the following activities happen after the date of substantial completion:

- The start-up period;
- Additional time needed to address production performance issues; and
- Maintenance.

If the timing of the application submission is questionable then the Department will require conclusive dated evidence that the filing deadline is within the law. The Department will recommend that the Environmental Quality Commission reject certification of the facility if any of the following events took place more than two years before the applicant submitted the application.

- The contractor turns over the facility to the owner.
- The contractor signs-off on the project.
- The final contract payment has been made.
- Production or operation has begun.
- The utilities were being fully utilized.
- Material related to the claimed facility was being received, processed, and sold.
- The asset was placed on the books.

It is the applicant's responsibility to provide conclusive evidence that the application was submitted in a timely manner. However, the Department may ask to review documents dating the events listed above. The Department may also ask to review other documents such as the:

- Start-up date used on permits and licenses; or
- Proof of when related equipment became operational;

**Processing
Note**

Tax credit applications and the checks are processed through the Department of Environmental Quality's Business Office. The Business Office date stamps the application when they post the payment. This can be the same day or the following business day. The Department

recommends that the applicant send the application by return receipt if the application is filed close to the two-year deadline. If the applicant hand-delivers the application, the Department recommends that the applicant ask for a receipt from the cashier.

The reviewer will use the date stamp as the "received date" on the final Review Report. If the date stamp adversely affects the application by being several days beyond the two-year filing deadline then the reviewer will use the postal date stamp on the envelope or the cashiers receipt to consider if the application was filed in a timely manner according to the law. The reviewer will report any variances under the Timeliness of Application in the Review Report.

Please avoid filing an application close to the end of the two-year deadline. If it is unavoidable, please provide conclusive evidence that the date of substantial completion is within two years of the submittal date.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

FINAL DRAFT

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

In the Matter of Permit No. ORQ 000 009 431
Umatilla Chemical Agent Disposal Facility

Case No.

**ORDER DENYING REQUEST FOR PERMIT
REVOCATION**

BACKGROUND FINDINGS

1. On February 10, 1997, the Environmental Quality Commission issued FINDINGS AND CONCLUSIONS OF THE COMMISSION AND ORDER (“Commission Order”) directing issuance of a Hazardous Waste Storage and Treatment Permit to the United States Army (Army) for construction and operation of incinerators to destroy chemical weapons stored at the Umatilla Chemical Depot (the facility is known as the Umatilla Chemical Agent Disposal Facility UMCDF).

2. The Commission’s February 10 order was based upon certain statutory findings the Commission was required to make before issuing such a permit. Commission Order, Findings 67-86.

3. G.A.S.P., Sierra Club, and other concerned organizations and individuals opposed to use of incineration for chemical weapons destruction filed a petition for review of the Commission’s order in Multnomah County Circuit Court (PETITION FOR REVIEW, Case No. 9708-06159, *G.A.S.P. et al. v. Environmental Quality Commission et al.*).

///
///
///
///

1 4. On December 14, 1998, the Petitioners (through Counsel) sent a letter to the
2 Commission and the Department requesting a "Contested Case Hearing and Other Relief". The
3 Department denied the clearly stated request for a contested case hearing, but did not at the time
4 interpret the remainder of the letter as a request for revocation or reconsideration of the UMCDF
5 Permit. During the final hearing before the Multnomah County Circuit Court on June 1, 1999,
6 the Commission, through counsel, agreed to treat the December 14, 1998 letter from the
7 Petitioners as a Request for Permit Revocation governed by 40 CFR 270.41 as incorporated by
8 reference through OAR 340-100-0002, 340-105-0041 and OAR Division 106.

9 5. A public comment period on the Revocation Request was held open from October
10 18 through December 17, 1999. On November 19, 1999, the Commission held a special
11 worksession related to UMCDF which included oral testimony from the Petitioners in support of
12 their Revocation Request. There were a total of four written comments submitted during the
13 public comment period. A full copy of all comments received during the public comment period
14 was sent by the Department to the Commission on January 25, 2000. A written transcript of the
15 testimony provided at the November 19, 1999 worksession was sent to the Commission on
16 February 1, 2000.

17 6. In addition to the comments received during the public comment period, the
18 Department reviewed over 120 documents that were submitted during the legal proceedings for
19 Case No. 9708-01659 ("exhibits"). Full copies of the exhibits, and selected motions and
20 correspondence from the legal proceedings, were provided to the Commission on November 3,
21 1999. This information was also sent to the Petitioners and to the UMCDF Information
22 Repositories for reference and public review.

23 7. A public comment period related specifically to the UMCDF carbon filter system
24 (the efficacy of which was challenged by Petitioners) was held from July 19 through September
25 20, 1999. On August 18, 1999, the Commission held a special worksession that included
26 comments and presentations concerning the UMCDF carbon filter system. On November 19,

1 1999, the Commission accepted the Department's recommendation that the carbon filter system
2 be retained in the UMCDF design.

3 8. The Commission held a hearing in this matter on May 18, 2000 at which oral
4 testimony regarding the Revocation Request was presented by Petitioners, Department Staff, and
5 the Permittee. The Commission also allowed submission by Petitioners of a Briefing Paper
6 dated May 16, 2000. A complete index of documents reviewed by the Commission as part of the
7 administrative record for this proceeding is attached to this Order as Exhibit A.

8 **FINDINGS REGARDING LEGAL STANDARDS**
9 **FOR PERMIT REVOCATION**

10 9. The Commission may revoke a hazardous waste facility permit pursuant to ORS
11 466.170 upon a finding that the permittee has violated a provision of the hazardous waste
12 statutes, rules, or a material condition of the permit.

13 10. The Commission may modify a hazardous waste facility permit upon a finding
14 that any of the following causes set forth in 40 CFR 270.41 (incorporated by reference through
15 OAR 340-100-0001 et seq.) exist:

- 16 A. Material and substantial alterations or additions to the permitted facility or
17 activity occurring after permit issuance. *See* 40 CFR 270.41(a)(1);
- 18 B. New information which was not available at the time of permit issuance
19 and would have justified different permit conditions. *See* 40 CFR
20 270.41(a)(2);
- 21 C. New statutory, regulatory, or judicially mandated standards. *See* 40 CFR
22 270.41(a)(3);
- 23 D. "Acts of God" or uncontrollable circumstances warranting revised
24 compliance schedules. *See* 40 CFR 270.41(a)(4).
- 25
26

EXHIBIT A
INDEX TO THE ADMINISTRATIVE RECORD

to
Environmental Quality Commission
“Order Denying Request for Permit Revocation”
in the Matter of
Permit No. ORQ 000 009 431
Umatilla Chemical Agent Disposal Facility

July 14, 2000

This Exhibit includes a listing of specific documents in the Administrative Record related to the Request for Revocation of the Hazardous Waste Storage and Treatment Permit (Permit No. ORQ 000 009 431) for the Umatilla Chemical Agent Disposal Facility.

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
1	99-2191 (C3-E)	"Selected Excerpts from the EPA Response to Comments to the Proposed HWC MACT Rule, Volume 1 Standards, Taken from the EPA web site," submitted by OCPR (labeled as "Attachment 3" to Comment C-3).	Unknown	
2	Not assigned	Letter to the Centers for Disease Control and Prevention from U.S. Army Program Manager for Chemical Demilitarization.	Unknown	Included in Attachment K to Revocation Request Staff Report
3	Not assigned	Letter to the Utah Citizens Advisory Commission from Centers for Disease Control and Prevention.	Unknown	Included in Attachment K to Revocation Request Staff Report
4	Not assigned (Exh. 55)	"Drinking Water Criteria Document for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (Final Draft, EPA 600/X-84-194-1)," by the U.S. Environmental Protection Agency, Environmental Criteria and Assessment Office.	3/1/85	
5	Not assigned (Exh. 74.301)	"A New Theory of Dioxin Formation in Municipal Solid Waste Combustion," by Roger D. Griffin.	11/1/86	
6	Not assigned (Exh. 54)	"Toxicological Profile for 2,3,7,8-Tetrachloridibenzo-p-Dioxin," by the Syracuse Research Corporation for ATSDR (U.S. Public Health Service) and EPA.	6/1/89	

¹ The DEQ Chemical Demilitarization Program maintains a database of documents related to the Umatilla Chemical Agent Disposal Facility. Most documents are assigned a record number for tracking purposes. Individual "Exhibits" submitted during the course of G.A.S.P., et al., v. EQC, et al., (Case No. 9708-06159, Oregon Circuit Court) were not assigned record numbers at the time of submittal—only the document the Exhibit was attached to was assigned a number. Some Exhibits do have Administrative Record Numbers because the document had been previously received. The comments from G.A.S.P. et al., included "Exhibits" with numbering that continued from previous legal briefs. Because these Exhibits were not actually part of the August 1997 lawsuit or revocation request, the Exhibit number has been preceded by a "C" to indicate that the Exhibit was received in the context of a comment period.

² Notes in this column indicate whether a particular document was included in the Revocation Request Staff Report (Item No. 00-0627).

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
7	Not assigned (Exh. 74.316)	"Prevention of PCDD Formation in MSW Incinerator by Inhibition of Catalytic Activity of Fly Ash Produced," by Naikadi K.P. and F.W. Karasek.	7/1/89	
8	Not assigned (Exh. 74.302)	"Effect of Sulfur Dioxide on the Formation Mechanism of Polychlorinated Dibenzodioxin and Dibenzofuran in Municipal Waste Combustors," by Brian K. Gullett.	6/1/92	
9	Not assigned (Exh. 74.314)	"PCDD and PCDF Formation From Hydrocarbon Combustion in the Presence of Hydrogen Chloride," by R. De Fre and T. Rymen.	7/1/92	
10	Not assigned (Exh. 74.303)	"Combustion Dioxin Suppression in Municipal Solid Waste Incineration with Sulphur Additives," by Ralf L. Lindbauer, Friedrich Wurst and Theodor Prey.	10/1/92	
11	Not assigned (Exh. 74.313)	"Formation of Polychlorinated Dibenzofurans by Chlorination and de Novo Reactions with FeCl ₃ in Petroleum Refining Processes," by Adrian Beard, K.P. Nalkwadi and F.W. Karasek.	3/3/93	
12	1573 (Exh. 35)	"Health Assessment Document for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds Volume III of III (External Review Draft)," U.S. Environmental Protection Agency.	8/1/94	
13	Not assigned (Exh. 28.1)	"Thinking of Biology - Science, environmental risk assessment, and the frame problem," by Kristin S. Shrader-Frechette.	9/1/94	
14	Not assigned (Exh. 56)	"Remedial Activities at Uncontrolled Hazardous Waste Sites in the Zone of Regions VI, VII, VIII." (from the "Final Times Beach Site Multimedia Risk Assessment - Volume I"), by the U.S. Environmental Protection Agency.	3/28/95	
15	Not assigned (Exh. 74.315)	"Mechanisms of Formation and Destruction of Polychlorinated Dibenzop-dioxins and Dibenzofurans in Heterogeneous Systems," by Ruud Addink and K. Olie.	6/1/95	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
16	Not assigned (Exh. 74.309)	"The Relationship Between Chlorine in Waste Streams and Dioxin Emissions from Waste Combustor Stacks (CRTD 36)," by H. Gregor Rigo, A.J. Chandler, and W.S. Lanier.	10/20/95	
17	Not assigned (Exh. 74.305)	"Dioxin Reduction by Sulfur Component Addition," by Hiroshi Ogawa, Norihiko Orita, Mitsuhiro Horaguchi, Takumi Suzuki, Mitsuhiro Okada and Shirzuo Yasuda.	1/1/96	
18	Not assigned (Exh. 74.318)	"Effects of Copper Contamination on Dioxin Emissions from CFC Incineration," by G.W. Lee, J.V. Ryan, R.E. Hall, et al.	1/1/96	
19	98-1391 (Exh. 29.1)	Resolution of the CTUIR Board of Trustees, Donald Sampson, Chairman.	1/17/96	
20	98-1355 (Exh. 57)	"Review of Systemization of Tooele Chemical Agent Disposal Facility," National Research Council.	3/1/96	
21	1856 (Exh. 58)	"Interim Status Assessment for the Chemical Demilitarization Program," Department of Defense.	4/15/96	
22	Not assigned (Exh. 74.324)	"Catalyst Development for the Destruction of Volatile Organic Compounds in the Flue Gas of Municipal Waste Incinerators," by H. Dropsch, J. Stohr and J. Furrer.	5/1/96	
23	Not assigned (Exh. 74.322)	"Comparison of Dry Sorbent Injection of Sodium Bicarbonate Lime and Carbon and their Control of Dioxins/Furans, Mercury, Chlorides and Sulfur Dioxide," by John Maziuk, Jr.	5/1/96	
24	Not assigned (Exh. 74.312)	"Dioxin/Furan Formation and Control in Waste Combustors," by K. Raghunathan and Brian K. Gullett.	5/1/96	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
25	Not assigned (Exh. 74.307)	"Effects of Facility Contamination on Dioxin Emissions," by K. Raghunathan.	5/1/96	
26	Not assigned (Exh. 74.317/319)	"Reduction of Dioxins by Combustion Control and Prevention of Reformation (Control of the Denovo Reaction)," by William Prescott.	5/1/96	
27	Not assigned (Exh. 74.325)	"Rotary Kiln Incinerator at Bayer AG in Germany Sets New Performance Standards for Air Emissions," by Dr. Hans Piechura and Dr. Peter K. Zeeb.	5/1/96	
28	Not assigned (Exh. 74.321)	"A Survey of Post-Combustion PCDD/PCDF Control Technologies," by B. Siret and K. Gilman.	5/11/96	
29	Not assigned (Exh. 60)	"Information Paper" regarding dioxin emissions from the DUN, LTC John Ontiveros, U.S. Army.	5/21/96	
30	Not Assigned (Exh. 26)	Affidavit of John Houston Miller.	6/3/96	
31	99-1723 (Exh. 30)	Declaration of James J. Cudahy.	7/15/96	Included in Attachment U to Revocation Request Staff Report
32	99-1728 (Exh. 49)	Deposition of Robert Bruce Perry (CWWG, et al. v. U.S. Army, et al.; Case No. 96-CV-0425C; TOCDF).	7/16/96	
33	99-1728 (Exh. 59)	Deposition of Robert Bruce Perry (CWWG, et al. v. U.S. Army, et al.; Case No. 96-CV-0425C; TOCDF).	7/16/96	
34	99-1724 (Exh. 23)	Deposition of John K. Cluff (CWWG, et al. v. U.S. Army, et al.; Case No. 96-CV-0425C; TOCDF).	7/17/96	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
35	2479 (Exh. 51)	"Long-term Health Effects Associated with Sub-Clinical Exposure to GB and Mustard," by Dennis M. Perrotta, Ph.D., CIC, Chair.	7/18/96	
36	99-1724 (Exh. 24)	Deposition of John K. Cluff (CWWG, et al. v. U.S. Army, et al.; Case No. 96-CV-0425C; TOCDF).	7/18/96	
37	99-1725 (Exh. 36)	Cross-examination of John K. Cluff (CWWG, et al. v. U.S. Army, et al.; Case No. 2:96-CV-0425C; TOCDF).	7/25/96	
38	99-1726 (Exh. 64)	Excerpts from the testimony of Army expert Gary Boyd of Science Applications International Corporation (CWWG, et al. v. U.S. Army, et al.; Case No. 96-CV-0425C; TOCDF).	7/29/96	
39	98-0741	U.S. District Court for the District of Utah (Central Division), Civil No. 2:96-CV-425C, denial of Plaintiffs' motion for a preliminary injunction.	8/13/96	Included in Attachment S to Revocation Request Staff Report
40	1830 (Exh. 27.5)	"Umatilla Chemical Agent Disposal Facility Phase 1 Quantitative Risk Assessment," Science Applications International Corporation.	9/1/96	
41	Not assigned	"Perspectives on the Umatilla Quantitative Risk Assessment Results," Science Applications International Corporation.	9/1/96	Included in Attachment M to Revocation Request Staff Report
42	Not assigned (Exh. 46)	Excerpts from the Journals of Gary Millar (author unknown).	9/9/96	
43	99-1723 (Exh. 30)	Declarations of James J. Cudahy.	10/24/96	Included in Attachment U to Revocation Request Staff Report

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
44	1977 (Exh. 27.3)	Table 1 - Comparison of Potential PICS, Recommended PICS, and Proposed Emission Rates, by PRC Environmental Management.	11/5/96	
45	98-1391 (Exh. 29.2)	"Lines Drawn in the Sand: A Review of Challenges, Opportunities, and Options for Chemical Weapons Disposal," by Donald Sampson, Armand Minthorn, and J.R. Wilkinson.	11/14/96	
46	2887	"Transcript of Proceedings," Meeting of the Environmental Quality Commission, November 15, 1996.	11/15/96	
47	2351	"Transcript of Proceedings," Meeting of the Environmental Quality Commission, November 22, 1996.	11/22/96	
48	98-0742	U.S. Court of Appeals for the Tenth Circuit, denial of Appellants' motion for stay pending appeal and grant of motion to expedite appeal.	12/6/96	Included in Attachment S to Revocation Request Staff Report
49	40 (Exh. 66)	Attachment A, Appendix 3 - PAS Carbon Filter Unit and Emission to the Carbon Filters--Permit Conditions, Oregon Department of Environmental Quality.	12/28/96	
50	2447 (Exh. 72.1)	Department of Defense's "Status Assessment for the Chemical Demilitarization Program."	1/1/97	
51	98-0727 (Exh. 50)	"Review of Acute Human-Toxicity Estimates for Selected Chemical Warfare Agents," National Research Council	1/1/97	
52	Not assigned (Exh. 27.4)	"Fundamentals of Risk Analysis and Risk Management," Vlasta Molak, editor.	1/1/97	
53	2377 & 2388	"Pre-Trial Burn Risk Assessment for the Proposed Umatilla Chemical Demilitarization Facility," prepared by Ecology and Environment, Inc., for the Oregon Department of Environmental Quality, Volumes 1 and 2.	2/1/97	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
54	98-1455	"Permit for the Storage and Treatment of Hazardous Waste," Umatilla Chemical Agent Disposal Facility, Permit No. ORQ 000 009 431, February, 1997 (as modified).	2/97	
55	Not assigned (Exh. 45)	"Fact Sheet - EPA Special Report on Endocrine Disruption," by the U.S. Environmental Protection Agency.	2/1/97	
56	99-1723 (Exh. 30)	Declaration of James J. Cudahy.	2/4/97	Included in Attachment U to Revocation Request Staff Report
57	99-1723 (Exh. 30)	Professional Qualifications of James J. Cudahy.	2/4/97	Included in Attachment U to Revocation Request Staff Report
58	40 (Exh. 67)	Appendix 3 - Commission Response, Environmental Quality Commission.	2/7/97	
59	98-1458	"Findings and Conclusions of the Commission and Order," In the Matter of the Application of the United States Army for a Permit to Construct and Operate a Chemical Weapons Demilitarization Facility at the Umatilla Chemical Depot, February 10, 1997.	2/10/97	
60	98-1243 (Exh. 43)	Examination of Timothy Thomas (CWWG, et al. v. U.S. Army, et al.; Case No. 2:96-CV-0425C; TOCDF), Transcript of Preliminary Injunction Hearing.	3/3/97	
61	98-1242 (Exh. 44.1)	Examination of Dennis Downs, Scott Anderson, and Martin Gray; Utah DEQ Solid and Hazardous Waste Control Board; Hearing on TOCDF Permit Modification; Transcript of Proceedings.	3/18/97	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
62	98-1242 (Exh. 44.2)	Examination of Deborah Ng and Donald Smith; Utah DEQ Solid and Hazardous Waste Control Board; Hearing on TOCDF Permit Modification; Transcript of Proceedings.	3/19/97	
63	98-1242 (Exh. 42)	Examination of Deborah Ng; Utah DEQ Solid and Hazardous Waste Control Board; Hearing on TOCDF Permit Modification; Transcript of Proceedings.	3/19/97	
64	98-1242 (Exh. 47)	Testimony of Dr. Brent L. Finley; in the matter of "The Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications" in a hearing before the Utah Solid and Hazardous Waste Control Board, Volume III of Transcript.	3/20/97	Excerpt (pp. 836-887) included in Attachment U to Revocation Request Staff Report
65	98-1242 (Exh. 47)	Examination of Mr. Timothy Thomas; Utah DEQ Solid and Hazardous Waste Control Board; Hearing on TOCDF Permit Modification; Transcript of Proceedings.	3/20/97	
66	98-0743	U.S. District Court for the District of Utah (Central Division), Civil No. 2:96-CV-425C, denial of Plaintiffs' second motion for a preliminary injunction.	3/24/97	Included in Attachment S to Revocation Request Staff Report
67	Not assigned (Exh. 37.2)	Executive Order: Protection of Children From Environmental Health Risks and Safety Risks, The White House.	4/21/97	
68	98-0744	U.S. Court of Appeals for the Tenth Circuit (No. 96-4166), affirmation of Judgment of Utah District Court's ruling on August 13, 1996.	4/22/97	Included in Attachment S to Revocation Request Staff Report
69	98-1242	Utah Solid and Hazardous Waste Control Board Order, denial of Petitioner's First and Second Requests for Agency Action.	7/22/97	Included in Attachment S to Revocation Request Staff Report

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
70	98-0027 (Exh. 48)	"Annual Status Report on the Disposal of Chemical Weapons and Materiel for Fiscal Year 1997," Department of Defense.	9/30/97	
71	Not assigned (Exh. 65)	"Public Health Assessment for US Army Umatilla Depot Activity - Public Health Service Agency for Toxic Substance and Disease Registry," by the U.S. Department of Health and Human Services.	9/30/97	
72	Not assigned (Exh. 38)	"Final Screening Risk Assessment Resource Conservation and Recovery Act Part B Pine Bluff Chemical Agent Disposal Facility," by the United States Army Center for Health Promotion and Preventive Medicine.	10/8/97	
73	98-0745	U.S. District Court for the District of Utah (Central Division), Civil No. 2:96-CV-425C, grant of Defendant's motion for summary judgment on Count 10.	10/14/97	Included in Attachment S to Revocation Request Staff Report
74	Not assigned (Exh. 52)	"105th Congress Report - Gulf War Veteran's Illnesses: VA, DOD Continue to Resist Strong Evidence Linking Toxic Causes to Chronic Health Effects," by the Committee on Government Reform and Oversight (House of Representatives).	11/7/97	
75	99-1723 (Exh. 30)	Declaration of James J. Cudahy.	12/1/97	Included in Attachment U to Revocation Request Staff Report
76	99-1727 (Exh. 25)	Deposition of Timothy W. Thomas, for the U.S. District Court for the District of Utah, CWWG, et al., Plaintiffs, vs. U.S. Department of Army, et al.; Defendants, Case No. 2:96CV-0425C.	2/5/98	Excerpts (pp. 19-34, pp. 134-161, and pp. 203-215) included in Attachment U to Revocation Request Staff Report
77	99-1723 (Exh. 30)	Deposition of James Cudahy (CWWG, et al. v. U.S. Army, et al.; Case No. 2:96-CV-0425C; TOCDF).	2/16/98	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
78	Not assigned (Exh. 40.3)	"Critique of Chemical Weapons Incineration Risk Assessment," by Peter deFur, Ph.D.	3/1/98	
79	Not assigned (Exh. 40.5)	"Health Effects of Low-level Exposure to Nerve Agent," by Jerry Buccafusco, Ph.D.	3/1/98	
80	Not assigned (Exh. 40)	"Public Health and Chemical Weapons Incineration," by the Kentucky Environmental Foundation.	3/1/98	
81	Not assigned (Exh. 40.1)	"Public Health Effects of Chemical Weapons Incineration," by Richard Clapp, Ph.D.	3/1/98	
82	Not assigned (Exh. 40.6)	"Synthetic Chemicals as Endocrine Disruptors," by Peter deFur, Ph.D., and Carolyn Raffensperger, M.A., J.D.	3/1/98	
83	Not assigned (Exh. 40.2)	"Toxic Exposures and Chronic Illnesses," by Howard Urovitz, Ph.D.	3/1/98	
84	Not assigned (Exh. 40.4)	"Toxicology of Chemical Agents," by Robert Ginsburg, Ph.D.	3/1/98	
85	Not assigned (Exh. 32)	"TOCDF Unusual Occurrence Report: Metal Parts Furnace Feed Rate Exceedance," by Michael J. Rowe, Timothy Thomas, and Harold Oliver.	4/2/98	
86	99-1722 (Exh. 33 & 34)	Deposition of Richard Holmes, for the U.S. District Court for the District of Utah, CWWG, et al., Plaintiffs, vs. U.S. Department of Army, et al.; Defendants, Case No. 2:96CV-0425C.	4/14/98	Excerpts (pp. 170-175) included in Attachment U to Revocation Request Staff Report

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
87	Not assigned (Exh. 74.306/308)	"Dioxin Emissions from Full Scale Hazardous Waste Combustion Units Handling Variable Chlorine Feed Compositions," by J.D. Wilson, C.N. Park and D.I. Townsend.	5/11/98	
88	Not assigned (Exh. 74.304)	"Effect of Sulfur in Reducing PCDD/PCDF Formation," by K. Raghunathan and Brian K. Gullett.	5/11/98	
89	Not assigned (Exh. 74.31)	"Evaluation of Carbon Injection for Controlling PCDD/PCDF Emissions at WTI's Commercial Hazardous Waste Incineration Facility," by Douglas R. Roeck and Alfred Sigg.	5/11/98	
90	Not assigned (Exh. 74.32)	"Inhibition Effect of Calcium Compound Fed to Furnace on PCDD/PCDF from Incineration Plant," by S. Matsui, T. Iwasaki and T. Noto.	5/11/98	
91	Not assigned (Exh. 74.311)	"Mechanisms for Formation and Options for Control of Emissions of PCDD'S/PCDF'S from Incineration," by D.I. Townsend, J.D. Wilson and C.N. Park.	5/11/98	
92	Not assigned (Exh. 74.323)	"Reduction of Dioxin/Furan Emissions from an Incineration Plant by Means of an Activated Carbon Filter," by G. Steinhaus and F. Dirks.	5/11/98	
93	Not assigned (Exh. 28.2)	Curriculum Vitae of Trygve P. Steen.	6/1/98	
94	Not assigned (Exh. 62)	Table titled "TOCDF Hazardous Waste Off-Site Disposal Activities," from the Utah DEQ.	(undated, possibly 6/98.)	
95	Not Assigned	"Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities," Peer Review Draft, U.S. Environmental Protection Agency, July, 1998 (EPA 530-D-98-001A, B & C).	7/1/98	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
96	Not assigned (Exh. 63)	"Pilot Testing of Neutralization/Biotreatment of Mustard Agent at Aberdeen Proving Ground, Maryland - Final Environmental Impact Statement," by the U.S. Army Program Manager for Chemical Demilitarization (PMCD).	7/1/98	
97	Not assigned (Exh. 37.1)	"1997 Declaration of the Environmental Leaders of the Eight on Children's Environmental Health," Office of Children's Protection.	7/27/98	
98	Not assigned (Exh. 31)	Affidavit of Pat Costner (Senior Scientist, Greenpeace)	7/27/98	
99	Not assigned (Exh. 61)	EG&G Memo - "Discontinuing op. Of BRA at the Tooele Facility," by Tom Kurkky & Debbie Sweeting.	7/28/98	
100	Not assigned (Exh. 41)	"Nerve gas danger underestimated, study says," by James Long, The Oregonian	7/29/98	
101	Not assigned (Exh. 39)	Affidavit of Dr. Peter deFur	7/31/98	
102	Not assigned (Exh. 27.2)	"A Listing of the Compounds that PRC claims should be included in the modeling analysis," by Lisa Brenner and Thomas Stibolt.	8/16/98	
103	Not assigned (Exh. 27.1)	"Review of the inhalation modeling compounds and standards used in the RA for human health effects," by Lisa Brenner and Thomas Stibolt.	8/17/98	
104	Not assigned (Exh. 27.6)	"Technical Aspects of the Model and the Air Quality Impact Analysis," by Thomas Stibolt and Lisa Brenner.	8/17/98	
105	98-0584	"Decision Being Pursued to Remove the Dunnage Incinerator (DUN) from the UMCDF Scope," Letter from the U.S. Army Program Manager for Chemical Demilitarization to the Oregon Department of Environmental Quality.	8/18/98	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
106	Not assigned (Exh. 27)	Affidavit of Thomas Bodley Stibolt Jr. and Lisa (Elizabeth) P. Brenner	8/19/98	
107	Not assigned (Exh. 29)	James R. Wilkinson's Affidavit	8/19/98	
108	98-1244	Court of Appeals of Utah (Case No. 971313-CA). Declined to disturb the Order of the USHW Board of July 22, 1997	8/20/98	Included in Attachment S to Revocation Request Staff Report
109	98-1275	"Petitioners' Memorandum Supporting Cross Motion for Summary Judgment," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	8/20/98	
110	Not assigned (Exh. 28)	Trygve P. Steen's Affidavit	8/20/98	
111	99-0066 (Exh. 71.1)	"Risk Assessment of the Pollution Abatement Filter System for the Umatilla Chemical Agent Disposal Facility," Mitretek Technical Report.	9/1/98	
112	Not assigned (Exh. 53)	"Chemical Weapons: DOD Does Not Have a Strategy to Address Low-Level Exposures," by the U.S. General Accounting Office.	9/1/98	
113	98-0655	"Review of [National Research Council's] Review of Acute Human-Toxicity Estimates for Selected Chemical Warfare Agents," Memorandum from Ecology and Environment to Oregon Department of Environmental Quality.	9/11/98	Included in Attachment K to Revocation Request Staff Report
114	Not assigned	Letter to the U.S. Army Program Manager for Chemical Demilitarization from Centers for Disease Control and Prevention.	10/7/98	Included in Attachment K to Revocation Request Staff Report

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
115	Not assigned	Letter to the Alabama Department of Environmental Management from the U.S. Army Program Manager for Chemical Demilitarization.	10/16/98	Included in Attachment K to Revocation Request Staff Report
116	98-1285	"Petitioners' Additional Documentary Evidence," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	11/10/98	
117	98-1247	"Request for Contested Case Hearing and Other Relief," Letter from Stuart A. Sugarman and Richard E. Condit (on behalf of G.A.S.P., et al.).	12/14/98	Included in Attachment A to Revocation Request Staff Report
118	98-1419	"Petitioners' Motion for Relief from an Order of Court," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	12/28/98	
119	00-0188	"Tooele Chemical Agent Disposal Facility: Update on National Research Council Recommendations," National Research Council.	1999	
120	99-0546 (Exh. 68)	Agenda Environmental Quality Commission Meeting (EQC) January 29, 1999.	1/1/99	
121	99-0903	U.S. District Court for the District of Columbia [Misc. Action No. 98-156 (AER)], denial of Plaintiff's motion to compel production of documents.	1/19/99	Included in Attachment S to Revocation Request Staff Report
122	99-1752	"Petitioners' Reply to Opposition to Motion for Relief," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	1/19/99	
123	Not Assigned	"Background Document on Gulf War-Related Research," by Syracuse Research Corporation for U.S. Department of Health and Human Services Centers for Disease Control and Prevention.	2/1/99	Included in Attachment K to Revocation Request Staff Report

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
124	99-0264	Denial of "Request for Contested Case Hearing," Letter from Langdon Marsh, Director, Department of Environmental Quality.	2/4/99	Included in Attachment B to Revocation Request Staff Report
125	99-2207 (C-80)	Letter to the U.S. Army from Richard W. Collins, Director, Waste Management Administration, Maryland Department of the Environment.	2/22/99	
126	99-0402 (Exh. 71)	"Comments on EQC Order Clarifying Permit Decision," by Stuart Sugarman and Richard Condit.	3/15/99	
127	99-0426 (Exh. 72)	"Supplement to March 15, 1999 Comments," by Stuart Sugarman and Richard Condit.	3/18/99	
128	99-1751	"First Supplemental Petition for Review," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	4/5/99	
129	99-0704	"Petitioners' Opposition to Respondents' Supplemental Motion for Summary Judgment," G.A.S.P., et al., v. EQC, et al., Multnomah Circuit Court (Case No. 9708-06159).	4/12/99	
130	Not assigned (Exh. 74)	Affidavit of Dr. Lisa P. Brenner & Dr. Thomas Stibolt with "Analysis of Kristina Iisa's Report Concerning the Emission of Dioxin and the Use of PAS Carbon Filters."	4/12/99	
131	Not assigned (Exh. 74.1)	Appendix 1 - "Iisa Report References With Quotes from the References," (attached to Exhibit #74), Dr. Lisa P. Brenner and Dr. Thomas Stibolt.	4/12/99	
132	Not assigned (Exh. 74.2)	Appendix II to Exhibit 74 - "Summary of the events found in the record," by Dr. Lisa P. Brenner and Dr. Thomas Stibolt.	4/12/99	
133	Not assigned (Exh. 74.3)	Appendix III to Exhibit 74 - "Copies of the References from Kristina Iisa's Dioxin Report to the EQC," by Dr. Lisa P. Brenner and Dr. Thomas Stibolt.	4/12/99	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
134	Not assigned (Exh. 73)	"Petitioner's Attorney's Affidavit Supporting Memorandum Opposing Supplemental Motion for Summary Judgment," submitted by Stuart Sugarman.	4/12/99	
135	00-0582	"A Report on the September 15, 1999 Industrial Accident at the Umatilla Chemical Agent Disposal Facility," by Oregon Department of Environmental Quality, Oregon Emergency Management, Oregon Occupational Safety and Health Administration, and the Oregon Health Division.	4/20/99	Included in Attachment W to Revocation Request Staff Report
136	99-1344	"Authority to Modify Hazardous Waste Facility Permits," Memorandum from Larry H. Edelman, Oregon Department of Justice to Carol Whipple, Chair, Environmental Quality Commission..	8/4/99	Included in Attachment C to Revocation Request Staff Report
137	99-2204 (C-77)	Letter from EG&G (Jackson Maddox) to the Department of the Army related to a confirmed agent reading in the Toxic Maintenance Area at the Tooele facility.	8/6/99	
138	99-2145	"Minutes of the Two Hundred and Seventy-Eighth Meeting of the Environmental Quality Commission, August 18, 1999," Environmental Quality Commission.	8/18/99	
139	99-2190 (C-3D)	"Deposition of Martin Hopkins In the Matter of United States Department of the Army Pine Bluff Arsenal," submitted by OCPR (labeled as "Attachment 2" to Comment C-3).	9/21/99	
140	99-1640	"Follow-up to August 18, 1999 Environmental Quality Commission Meeting," Letter from the Chair of the Environmental Quality Commission to the Assistant Secretary of the Army and the U.S. Army Program Manager for Chemical Demilitarization.	9/24/99	Included in Attachment Q to Revocation Request Staff Report
141	99-2206 (C-79)	"Assembled Chemical Weapons Assessment Program, Supplemental Report to Congress," Department of Defense.	9/30/99	
142	99-2203 (C-76)	Memorandum: "DAAMS Analysis and UOR #99-06-04-A1," by Sam Guello and Fred Burton, of EG&G.	10/15/99	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
143	99-2273 (C-1)	Letter, transmitted via e-mail from Bill Fujii, Oregon Water Resources Department.	10/21/99	
144	99-1815	"Carbon Filter System Pollution Abatement System (PFS) at the Umatilla Chemical Agent Disposal Facility (UMCDF)," Staff Report related to Agenda Item G, EQC Meeting, November 18-19, 1999.	11/1/99	
145	99-1906	"Documentation Related to Case No. 9708-06159," G.A.S.P., et al., v. Environmental Quality Commission, et al.," Volume I, August, 1997 to June, 1999.	11/1/99	
146	99-1907	"Documentation Related to Case No. 9708-06159," G.A.S.P., et al., v. Environmental Quality Commission, et al.," Volume II, August, 1997 to June, 1999.	11/1/99	
147	99-2276	"Minutes of the Two Hundred and Eightieth Meeting of the Environmental Quality Commission, November 18-19, 1999."	11/18/99	
148	00-0181	"Transcript of Proceedings, Public Comment on a Request to Revoke the Umatilla Chemical Weapons Depot Permits," before the Environmental Quality Commission.	11/19/99	
149	00-0376	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 1.	11/22/99	
150	00-0377	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 2.	11/23/99	
151	99-2189 (C-3C)	"Information from Ecology and Environment's Web Site," submitted by OCPR (labeled as "Attachment 1" to Comment C-3).	12/99	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
152	99-2205 (C-78)	"Issue and Directed Actions with Fact Sheet" (Issue # 95-104) from Army's "Programmatic Lessons Learned" Program.	12/6/99	
153	99-2187 (C-3A)	Abstract of "Air-Quality Dispersion Modeling in Complex Terrain near the Umatilla Chemical Agent Disposal Facility," by Dr. Halstead Harrison, University of Washington.	12/15/99	
154	99-2186 (C-3)	Transmittal letter of "Comments on the Request for Revocation of Permits," Submitted by Oregon Clearinghouse for Pollution Reduction.	12/16/99	Included in Attachment F to Revocation Request Staff Report
155	99-2188 (C-3B)	"Comments on the Request for Revocation of Permits," from Lisa P. Brenner, Ph.D. and Thomas B. Stibolt, M.D., Oregon Clearinghouse for Pollution Reduction (OCPR).	12/16/99	Included in Attachment F to Revocation Request Staff Report
156	99-2202 (C-75)	Affidavit of Gary E. Harris.	12/16/99	
157	99-2193 (C-2)	Facsimile Transmission (one page), from Nathan and Allison Butz, and Andrew Butz.	12/17/99	
158	99-2201 (C-5)	"Comments of G.A.S.P., et al., In Support Of Their Request To Suspend And Revoke Permits For The Umatilla Chemical Demilitarization Facility," submitted by Richard E. Condit, Esq. and Stuart Sugarman, Counsel for the Commentors (G.A.S.P., et al.).	12/17/99	Included in Attachment E to Revocation Request Staff Report
159	99-2272	Letter from the U.S. Army Program Manager for Chemical Demilitarization to the Chair of the Environmental Quality Commission (response to EQC letter of September 24, 1999).	12/17/99	Included in Attachment Q to Revocation Request Staff Report
160	99-2200 (C-4)	Transmittal letter of Comments, from Richard E. Condit, Esq. and Stuart Sugarman, Counsel for the Commentors (G.A.S.P., et al.).	12/18/99	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
161	00-0435	"Evaluation of Demonstration Test Results of Alternative Technologies for Demilitarization of Assembled Chemical Weapons: A Supplemental Review," National Research Council.	2000	Included in Attachment T to Revocation Request Staff Report
162	00-0119	"Air Quality Dispersion Modeling in Complex Terrain near the Umatilla Chemical Agent Disposal Facility," Dr. Halstead Harrison, University of Washington.	January, 2000	
163	Not Assigned	"Management Actions Needed to Answer Basic Research Questions," Government Accounting Office, January, 2000.	1/1/00	Included in Attachment K to Revocation Request Staff Report
164	00-0010	"'WPUFF' modeling report submitted by Dr. Halstead Harrison," Memorandum from Wayne C. Thomas to Langdon Marsh, Department of Environmental Quality.	1/24/00	
165	00-0378	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 3.	2/2/00	
166	00-0379	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 4.	2/3/00	
167	00-0380	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 5.	2/4/00	
168	00-0381	"Transcript of the Deposition of Gary Harris," In the Matter of the Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications, before the State of Utah Solid and Hazardous Waste Control Board, Volume 6.	2/5/00	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
169	00-0391	"Technical Review of 'Air Quality Dispersion Modeling in Complex Terrain near the Umatilla Chemical Agent Disposal Facility'" Innovative Emergency Management, Inc.	3/20/00	
170	00-0900	U.S. District Court for the District of Utah (Central Division), Civil No. 2:96-CV-425C, "Findings of Fact and Conclusions of Law," granting judgment for the defendants on all claims against them brought by the plaintiffs.	4/14/00	Included in Attachment S to Revocation Request Staff Report
171	00-0627	Staff Report for Permit Revocation Request Umatilla Chemical Agent Disposal Facility, Oregon Department of Environmental Quality <i>for</i> the Environmental Quality Commission.	4/17/00	
172	00-0733	Reply to the [IEM] Technical Review of "Air-Quality Dispersion Modeling in Complex Terrain near the Umatilla Chemical Agent Disposal Facility," by Dr. Halstead Harrison, University of Washington.	4/27/00	
173	00-0650	"Authority to Modify Hazardous Waste Facility Permits; Standard for Commission Decision," Memorandum from Larry H. Edelman, Oregon Department of Justice to Melinda Eden, Chair, Environmental Quality Commission.	5/1/00	
174	00-0919	"Briefing Paper Prepared for the Environmental Quality Commission: A Response to the April 17, 2000 Memorandum of the Department of Environmental Quality," from Richard E. Condit, Esq., on behalf of GASP, Oregon Wildlife Federation, Sierra Club, and Concerned Individuals Living Near UMCDF.	5/16/00	
175	00-0918	Transmittal letter of "Briefing Paper Prepared for the Environmental Quality Commission: A Response to the April 17, 2000 Memorandum of the Department of Environmental Quality," from Richard E. Condit, Esq., on behalf of GASP, Oregon Wildlife Federation, Sierra Club, and Concerned Individuals Living Near UMCDF.	5/17/00	

EXHIBIT A

to Environmental Quality Commission "Order Denying Request for Permit Revocation"
in the Matter of Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility

INDEX TO THE ADMINISTRATIVE RECORD

Admin. Record No.	DEQ Item No. ¹	Document Description	Date of Document	Additional Comments ²
176	00-0690	"Correction Pages to Umatilla Staff Report for the May 18, 2000 Meeting," Memorandum from Sue Oliver, Department of Environmental Quality, to Environmental Quality Commission and other Interested Parties, transmitting correction to page 57 of Revocation Request Staff Report.	5/18/00	
177	00-0942	"Transcript of Proceedings," Meeting of the Environmental Quality Commission, May 18, 2000 (videotape is also available).	5/18/00	



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Eastern Region
Hermiston Office
256 E Hurlburt
Hermiston, OR 97838
Phone: (541) 567-8297
FAX: (541) 567-4741
TTY: (503) 229-6993

July 12, 2000

Mr. James Bacon
Program Manager for Chemical Demilitarization (PMCD)
ATTN: SFAE-CD-Z, Building E4585
Corner of Hoadley and Parrish Roads, Edgewood Area
Aberdeen Proving Ground, Maryland 21010-5401

Re: May 8, 2000 Chemical Agent Release at TOCDF
DEQ Item No. 00-0965(52.09)

Dear Mr. Bacon:

The Oregon Department of Environmental Quality (Department) has reviewed four reports that have been produced to date in the aftermath of the GB nerve agent release from the common stack at the Tooele Chemical Agent Disposal Facility (TOCDF) on May 8-9, 2000. The Department has reviewed the recent reports by the Centers for Disease Control, the Utah DEQ, EG&G Defense Materials, Inc., and the Army Safety Center. Each of these individual reports highlights serious shortcomings in the ability of personnel at TOCDF to safely operate the incineration facility. Although the Department is confident that the Army and EG&G will respond to the concerns, conclusions, and recommendations contained in each report (and that the Utah DEQ will review the responses for adequacy prior to allowing the re-start of the Deactivation Furnace System at TOCDF), we have reviewed these reports from the viewpoint of what could be learned and applied to the Umatilla Chemical Agent Disposal Facility (UMCDF).

The Department has identified several issues that could affect operations at UMCDF (and other baseline incineration sites):

- The apparent failure of the Programmatic Lessons Learned (PLL) program, and the statement in the report by EG&G that "...there is no documented evidence that the lessons learned from either the Chemical Demilitarization Operations Manual or the Programmatic Lessons Learned have been implemented at TOCDF."
- The problems with excessive false alarms from the Automatic Continuous Agent Monitoring System (ACAMS). The excessive number of previous false alarms clearly affected the response of the TOCDF Control Room staff and the staff in the Emergency Operations Center during the events of May 8-9. There is also a concern with the

Army's interpretation of analytical results from the Depot Area Agent Monitoring Systems (DAAMS) (see Attachment A of the CDC report).

- The apparent failure of the Army's training program for TOCDF personnel. We noted that all of the operators (and the shift supervisor and manager) involved in the May 8 incident were "fully trained" in accordance with all requirements. Clearly, those requirements are inadequate, since no one in the Control Room that evening seemed to have a full understanding of the interrelationships between the various systems, nor seemed to grasp the significance of the data coming from many individual operational parameters.

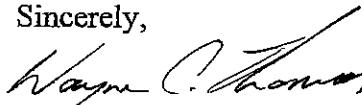
The Department is very concerned that the integration of all operations at a demilitarization facility, to include standard operating procedures, lessons learned, and roles and responsibilities of supervisors and operators, is not fully developed. A facility of this complexity requires a responsible party to be able to grasp the "big picture" perspective to ensure that changes in one area are not detrimental to another and thereby affect the entire system. It is unclear who performs this function at Umatilla and we believe this is not a function the operations contractor should perform.

The fundamental question the Army must answer is "who is responsible for the integration of all operations at UMCDF and what assurances do the citizens of Oregon have that the lessons learned from this event (and any previous events) will be applied to Umatilla?". Our confidence in the future operation of the Umatilla has been shaken based upon the findings presented in the four investigation reports.

Enclosed is a copy of a matrix of the recommendations and concerns (noted in the various reports) that the Department has prepared for a presentation to the Oregon Environmental Quality Commission on July 14, 2000. The Department requires that PMCD submit a response by September 11, 2000 identifying how each of the recommendations/concerns listed in the matrix apply to Umatilla and the actions that will be taken to implement them. A timeline for the actions and who is responsible should also be provided.

We expect and are confident that you will be able to address our concerns so that we may continue to move forward to the successful completion of the project and the nation's mission of eliminating the chemical weapons stockpile.

Sincerely,



Wayne C. Thomas
Administrator
Chemical Demilitarization Program

Enclosure

CF Environmental Quality Commission Members
Langdon Marsh, Director, Oregon DEQ
Armand Minthorn, Confederated Tribes of Umatilla Indian Reservation
LTC Thomas F. Woloszyn, Commander, UMCD
Stephen C. DePew, PMCSD, Umatilla
Loren Sharp, Raytheon Demilitarization Company, Umatilla
Stephanie Hallock, Office of the Governor, State of Oregon
Catherine Massimino, EPA Region 10
Martin Gray, Utah Division of Solid and Hazardous Waste
Oregon Chemical Demilitarization Citizens Advisory Commission
Umatilla County Commission
Morrow County Court

**SUMMARY OF RECOMMENDATIONS/CONCERNS FROM INVESTIGATIVE REPORTS
RELATED TO THE CHEMICAL AGENT RELEASE AT THE
TOOELE CHEMICAL AGENT DISPOSAL FACILITY ON MAY 8-9, 2000**

(Prepared by Oregon Department of Environmental Quality)

SUBJECT OF RECOMMENDATION/CONCERNS	CDC	UTAH DEQ	EG&G	ARMY SAFETY
<p>USE OF "NON-NORMAL" PROCEDURES: Review the process for developing and implementing a "non-normal" procedure to assure that procedures contain the essential elements, to include a complete and accurate hazards analysis. Assure that procedures are not applied to operations beyond the original intent or the scope of the supporting hazard analysis.</p>	X	X	X	X
<p>STANDARD OPERATING PROCEDURES (SOPS): The form/organization of SOPs used in the Control Room should be reassessed to assure critical information is presented in a readily accessible timely manner. Reassess the process by which procedures are reviewed/approved, with specific attention to the sequence in which changes are approved/incorporated. Transfer information from the Operational Management Memorandum (OMM) program into the appropriate, related SOPs and do not allow the use of the OMM program for procedural direction of operations. Review and revise all SOPs.</p>		X	X	X

¹ "Technical Investigation Report: Release of GB at the Tooele Chemical Agent Disposal Facility (TOCDF) on May 8-9, 2000," Centers for Disease Control, June 2000.

² "Investigation Report On The Agent Release From The Common Incinerator Stack On May 8 And 9, 2000 At The Tooele Chemical Agent Demilitarization Facility," Utah Department Of Environmental Quality, June 16, 2000.

³ "EG&G Investigation into the Chemical Agent Discharge at the Tooele Chemical Agent Disposal Facility," EG&G Defense Materials, Inc., released June 22, 2000.

⁴ "Informal 15-6 Investigation of the Tooele Chemical Agent Disposal Facility (TOCDF) Common Stack Release 8-8 May 2000," Deputy Director of Army Safety, released July 5, 2000.

SUBJECT OF RECOMMENDATION/CONCERNS	CDC ¹	UTAH DEQ ²	EPC&G ³	ARMY SAFETY ⁴
<p>STANDARD OPERATING PROCEDURES (SOPS):</p> <p>Review the temporary change procedure to ensure it is responsive to operator's need. Common and routine temporary changes should be incorporated in to an operating procedure. Provide contingency procedures to assist shift management and operators in recovery of the plant from frequently experienced or probable plant upset conditions, to include the loss of key plant/system components and events.</p>			X	X
<p>DOCUMENT CONTROL:</p> <p>All drawings required by the Control Room Operators should be "controlled" drawings. Improve the rigor and function of the Document Control System.</p>			X	X
<p>TRAINING ISSUE (Need for simulator):</p> <p>Procure and install a DFS furnace and PAS system training simulator to ensure the on site capability to conduct comprehensive site specific DFS furnace and PAS systems training. Provide the necessary troubleshooting skills by training all furnace operators in the proper techniques for furnace recovery.</p>		X	X	X
<p>TRAINING ISSUES:</p> <p>Improve the current training program to evaluate shift operators' level of knowledge of plant equipment, systems and their interrelated function; formalize the structure of on-shift training; and periodically review the experience level of each team and reassign staff if necessary to ensure each shift is equally qualified. Ensure all line managers are current in the training and qualification certifications. Provide training opportunities to operators besides on-the-job training.</p>		X	X	X
<p>MANAGEMENT ISSUES:</p> <p>Review the Lessons Learned from this event with all shift operations personnel and line management and provide special training for all operations personnel on new and revised procedures developed as a result of corrective action related to this event. Augment current management oversight programs by increasing the participation of responsible line and functional managers for operation of the Chemical Agent Disposal Facility. Include unannounced monitoring visits to the plant and control room.</p>			X	

SUBJECT OF RECOMMENDATION/CONCERNS	CDC	UTAH DEQ	EG&G	ARMY SAFETY
<p>MECHANICAL/DESIGN ISSUE (chute cleaning): The procedure for clearing jams in the chutes regularly causes difficulties for incinerator operators. Prepare a comprehensive and detailed Standard Operating Procedure for ECR Feed Chute Cleanout and gate malfunction and jam correction, to include procedures for restoration of the ECR, DFS and PAS systems to normal operating conditions.</p>			X	X
<p>MECHANICAL/DESIGN ISSUE (chute jamming): Modify the DFS furnace feed chute to eliminate the need to clean out the chute manually.</p>		X	X	
<p>MECHANICAL/DESIGN ISSUE (flow measurement): Identify and install a more robust method of ensuring that the DFS flue gas rate is measured for minimum draft, or alternatively, acquire a redundant means of measuring flow.</p>			X	X
<p>MECHANICAL/DESIGN ISSUE (Burner management): Evaluate the Burner Management System design, to allow a relight of the furnace if temperature and flow are in accordance with National Fire Protection Association Standards. Modify the response of the control system so that an operator action is required in order to configure the DFS to initiate system purge. (EG&G also recommends eliminating the Plant Shift Manager's authority to make temporary changes that compromise plant protective features.)</p>			X	X
<p>MECHANICAL/DESIGN ISSUES (Operator display): Provide a method for the control Room Operator to be able to monitor the furnace and its associated pollution abatement system as a single system so that flow and pressure excursions can be more readily identified and corrected. Provide a lighted and interactive furnace system schematic on a large display that shows major components and control status. Provide the Operator a display of the flow, but also of the individual input parameters to the flow indicator (i.e., temperature/pressure).</p>		X	X	X

SUBJECT OF RECOMMENDATION/CONCERNS	CDC	UTAH DEQ	EG&G	ARMY SAFETY
<p>MECHANICAL/DESIGN ISSUE (Afterburner Isolation): Incorporate the existing Engineering Change Proposal to install an isolation system that would allow the Afterburner to be remotely isolate from the kiln during upset conditions (This has already been incorporated at Umatilla, Pine Bluff, and Anniston facilities.)</p>			X	X
<p>MECHANICAL/DESIGN ISSUE (Scrubber tower operation): Modify the Scrubber Tower Clean Liquor recirculation system to make sure sump levels can be maintained without excessive operator intervention. Ensure, by procedure, that clean liquor and quench brine flow is established whenever the ID fan or emergency ID fan is running. This was addressed in a Programmatic Lessons Learned (PLL) issue paper (96-662), which identified the issue of ensuring that the clean liquor pump was operating when the ID fan is operating.</p>			X	X
<p>PROGRAMMATIC LESSONS LEARNED PROGRAM: Track correction progress on corrective action determined as a result of event investigations by using the Deficiency Reporting (DR) racking system. Have existing PLL staff review the PLL and CDOM and provide input to the DR system to track review and/or implementation of applicable finding.</p>			X	
<p>AGENT MONITORING (Eliminate excessive false alarms) Conduct a study, locate, or develop and provide a chemical munitions agent sensing and alarm system that will experience significantly fewer false positives and be just as sensitive to detecting agent concentrations.</p>	X		X	
<p>AGENT MONITORING (Eliminate effects of moisture) The dilution tube in the common stack and duct ACAMS/DAAMS sample probes should be positioned a uniform distance from the distal end of the sample probe. The entire length of Stack/PAS duct sampling probes should be tested at least weekly to verify agent transfer capability. Modify the ACAMS alarm and sensing system so that caustic moisture carry over does not impair or delay its proper and timely function.</p>	X		X	X

SUBJECT OF RECOMMENDATION/CONCERNS	CDC ¹	UTAH DEQ ²	EG&G ³	ARMY SAFETY
<p>AGENT MONITORING (Analysis of DAAMS tubes)</p> <p>The DAAMS tubes monitoring the perimeter were not pulled and analyzed immediately upon confirmation by the DAAMS tubes in the furnace duct and the stack that there had been a release. Procedures should be established to assure that B tubes from DAAMS perimeter monitoring stations are retained for later analysis if the results of the "A" tube indicate a peak within the agent gate, but at less than the instrument's Limit of Quantification (LOQ).</p>	X	X	X	X
<p>AGENT MONITORING (Implementation of Contingency Plans)</p> <p>All stack and duct ACAMS alarms should be considered valid until proven otherwise. The decision making process associated with the <i>Contingency Procedure for Agent Detected in the Stack</i> needs to be evaluated to ensure that the correct procedures are implemented during an agent release. The Deseret Chemical Depot Emergency Operations Center failed to notify off-post communities until four hours after the first release.</p>	X	X		

Received
JUL 11 2000

OFFICE OF THE DIRECTOR

State of Oregon

Department of Environmental Quality **Memorandum**

DEQ Item No. 00-0958 (92.01)

DATE: July 10, 2000

TO: Environmental Quality Commission
Langdon Marsh, Director
Larry Edelman, Department of Justice
Larry Knudsen, Department of Justice

FROM: Wayne C. Thomas *WCT*
for Program Administrator
Chemical Demilitarization Program

SUBJECT: Transmittal of Investigation Reports from the May 8, 2000 nerve agent release from the Tooele Chemical Agent Disposal Facility (TOCDF) (Related to Agenda Item J, EQC meeting on July 14, 2000)

Enclosed is a copy of each of the four investigation reports from the May 8 agent release incident at TOCDF. The Utah DEQ, Centers for Disease Control, EG&G (the Army's TOCDF contractor) and the Army Safety Center each produced a separate report on the incident. The Utah DEQ and the Army's reports both included voluminous attachments. Most of the Attachments to those two reports are not included here, although there were a few that we included that might assist you in looking at the material. If you see an Attachment listed that we did not include, please let us know and we will get them to you.

All of these reports have been posted in Adobe Acrobat file format (including all of the Attachments) on the Utah DEQ's web site. The direct link to the page with all of the reports is <http://www.deq.state.ut.us/eqshw/CDS/CurrentEventsCDS.htm>. Sometimes the direct link won't work, in which case go to www.deq.state.ut.us and then select <Land> then <Division of Solid and Hazardous Waste> then <Hazardous Waste Branch> then <Chemical Demilitarization Section> then scroll down to near the bottom until you see the section on "Comments and Public Involvement" and click on <CDS Current Events and Other Information>.

The Department is reviewing all of the reports and will present a brief update for you at the meeting in Tillamook this Friday. If you have any questions please contact me at 541-567-8297, ext. 22.

Memorandum to EQC

July 10, 2000

Page 2

Enclosures:

- "Technical Investigation Report: Release of GB at the Tooele Chemical Agent Disposal Facility (TOCDF) on May 8-9, 2000," Centers for Disease Control, June 2000.
- "Investigation Report On The Agent Release From The Common Incinerator Stack On May 8 And 9, 2000 At The Tooele Chemical Agent Demilitarization Facility," Utah Department Of Environmental Quality, June 16, 2000 (without most attachments).
- "EG&G Investigation into the Chemical Agent Discharge at the Tooele Chemical Agent Disposal Facility," EG&G Defense Materials, Inc., released June 22, 2000.
- "Informal 15-6 Investigation of the Tooele Chemical Agent Disposal Facility (TOCDF) Common Stack Release 8-8 May 2000," Deputy Director of Army Safety, released July 5, 2000 (without most attachments).



00-0939

Technical Investigation Report

**Release of GB at the Tooele Chemical
Agent Disposal Facility (TOCDF) on
May 8-9, 2000**



**Prepared by:
Department of Health and Human Services
Centers for Disease Control and Prevention**

June 2000

**National Center for Environmental Health
4770 Buford Highway, N.E.
Atlanta, Georgia 30341**

CDC

Centers for Disease Control
and Prevention

CHEMICAL DEVELOPMENT CENTER

Table of Contents

List of Acronyms	3
Executive Summary	4
Introduction	6
Objectives of the CDC Investigation	6
Summary of Events	7
Agent Air Monitoring Systems (TOCDF)	8
Perimeter Network Air Monitoring System	12
Evaluation of Potential Impact on Public Health	13
Medical Clinic	14
Emergency Operations Center (EOC) notification	15
Contingency Procedures	15
Conclusions	16
Recommendations	17
Figure 1	19
Figure 2	20
Attachment A	21
Attachment B	Error! Bookmark not defined.
Attachment C	30

List of Acronyms

ACAMS	Automatic Continuous Air Monitoring System®
AFB	Afterburner
ASC	Allowable Stack Concentration
CAMDS	Chemical Agent Munitions Disposal System
CDC	Centers for Disease Control and Prevention
ChE	Cholinesterase
CRO	Control Room Operator
DAAMS	Depot Area Air Monitoring System
DFS	Deactivation Furnace System
DPE	Demilitarization Protective Ensemble
ECR	Explosive Containment Room
ECV	Explosive Containment Vestibule
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
FPD	Flame Photometric Detector
GB	Sarin; isopropyl methylphosphonofluoridate
GC	Gas Chromatograph or Gas Chromatography
GPL	General Population Limit
LOQ	Limit of Quantification
MDL	Minimum Detection Limit
MGLC	Maximum Ground Level Concentration
MS	Mass Spectrometry or Mass Spectral
PAS	Pollution Abatement System
PDARS	Process Data Acquisition and Recording System
QL	Quality Laboratory
QP	Quality Plant
RT	Retention Time
SCRO	Supervisor Control Room Operator
TOCDF	Tooele Chemical Agent Disposal Facility
TWA	Time-Weighted Average [concentration]
USCHPPM	U.S. Army Center Center for Health Promotion and Preventive Medicine
VX	O-ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate

Release of GB at the Tooele Chemical Agent Disposal Facility, Tooele, Utah

Executive Summary

The Department of Health and Human Services (DHHS) is directed by Congress to provide public health oversight of Department of Defense's chemical weapons disposal facilities. This responsibility has been delegated to the Centers for Disease Control and Prevention (CDC), which is an agency within the DHHS. In response to the release of GB (sarin) at the Tooele Chemical Agent Disposal Facility (TOCDF), CDC dispatched a team to conduct an independent evaluation of this release. This investigation focused on the air monitoring systems and the potential public health impact of the release.

From 11:26 pm on May 8, 2000 to 12:56 am on May 9, 2000, GB was released from the common stack during a bi-phasic incident at TOCDF. The peak concentration was approximately 3.6 times the allowable stack concentration. No munitions or bulk agent were being processed at the time of the release. The source of agent in this incident included a liquid GB agent strainer sock placed on the deactivation furnace system gate. The release occurred during a maintenance procedure conducted under abnormal incinerator conditions. This event does not reflect the efficiency of the deactivation furnace system with its associated pollution abatement system under normal operating conditions.

The Automatic Continuous Air Monitoring System® (ACAMS) for the common stack functioned as designed, alerting personnel of the release. However, control room personnel incorrectly assumed that no agent source existed in the deactivation furnace system. This incorrect assumption resulted in continuation of their attempts to purge and re-light the after-burners even after the second stack ACAMS went into alarm. Because the two involved ACAMS have different types of chromatographic columns, the simultaneous alarms were essentially a confirmation of presence of GB. Control room personnel discounted or misunderstood this information. The contingency procedure implemented during the event incorrectly utilized the protocol that assumed presence of agent was not probable.

Review of the biweekly TOCDF ACAMS quality control report indicated that all ACAMS stations at TOCDF were operating well within established quality control limits. However, the deactivation furnace system duct ACAMS provided inconsistent data compared with that observed at the common stack. This inconsistency is believed to have resulted from contamination in the duct sample probe.

The perimeter Depot Area Air Monitoring System (DAAMS) stations were operational at the time of the incident. The GB results of the DAAMS tubes were all below the administratively established reporting limit of 20% of the general population limit. However, perimeter station 905 showed a small, but discernable, chromatographic response at the retention time for GB. Careful evaluation of the meteorological data at the time the incident does not support a relationship between the release at the common stack and the response observed at station 905. However, analytical data from the DAAMS analysis cannot confirm or deny the presence of GB in this sample.

The Emergency Operation Center was informed and reportedly conducted dispersion modeling of the incident. However, the Emergency Operation Center delayed informing Tooele County of the release for approximately 4 hours.

CDC used information gathered from the investigation and the SCREEN3 Environmental Protection Agency's (EPA)-approved dispersion model to evaluate potential human health consequences of this release. Worst-case assumptions were used in the model to predict the maximum possible public health impact of the release. The maximum peak release concentration was assumed constant for the entire 30-minute release, although monitoring data indicated that this peak concentration existed for 6 minutes or less. Even with this most conservative approach, the calculated potential exposures for workers and the general population were less than 1% of the established occupational exposure limit or the general population limit for GB, respectively. Based on this modeling data and current toxicologic data on GB, no short-term or long-term adverse health effects are expected for TOCDF workers or the surrounding population.

This report presents fifteen recommendations to help reduce the probability of similar events, improve the performance and utility of the monitoring system, and improve overall event-related communications (see the Recommendations section of this report).

Introduction

The Department of Health and Human Services (DHHS) is directed by Congress to provide public health oversight of Department of Defense's chemical weapons disposal facilities. This responsibility has been delegated to CDC, which is an agency within the DHHS. In this capacity, CDC was notified on May 9, 2000 about the release of the chemical agent GB on May 8, 2000 at the Tooele Chemical Agent Disposal Facility (TOCDF). CDC dispatched a team to begin an independent investigation of the incident. The CDC investigation focused on the air monitoring systems and the potential public health impact of the release.

Objectives of the CDC Investigation

Operational events. The CDC representatives observed the collection of engineering and other data for the development of a chronology of plant and personnel operational events before, during, and after the release of chemical agent. CDC participated in discussions with engineering staff to develop a basic functional understanding of these chronological events to determine the impact on plant operations, and how these events resulted in the release of chemical agent outside engineering controls.

Air monitoring. The CDC representatives reviewed the operational status of both in-plant and perimeter air monitoring systems before, during, and after the release. The monitoring data, quality control data, and appropriateness of responses and activities of monitoring personnel were evaluated. The overall accuracy and validity of the monitoring data were carefully determined. The documentation, interpretation, and utilization of the monitoring results were examined.

Compatibility of monitoring results and operational activities. CDC representatives compared the air monitoring data and operational events to evaluate the chronological, spatial, and operational compatibility and consistency of these data.

Evaluation of potential impact on public health. CDC representatives utilized the air monitoring data, the operational data, and meteorologic data in conjunction with an Environmental Protection Agency (EPA)-approved dispersion model to define the agent plume to evaluate the potential exposure to workers and the general public. Worst-case scenarios were developed to yield a most conservative result.

Documentation, interpretation, and reporting. Once all data were consolidated, CDC evaluated the data and presented their findings in this independently generated report. This report will include recommendations to help reduce probability of reoccurrence of similar incidents, improve the performance and utility of the monitoring system, and improve overall event-related communications.

Summary of Events

On May 8, 2000, the day shift at the TOCDF was processing M56 rockets in the deactivation furnace system (DFS).¹ At approximately 4:00 pm (1600 hours) the DFS lower tipping gate failed to close properly, and munitions/agent processing was terminated. At 8:10 pm (2010 hours), staff began a demilitarization protective ensemble (DPE) entry to repair the DFS lower tipping gate and to water wash the DFS feed chute. After several problems during the entry, the DPE entrants completed cleaning the tripping gate and the wash-down of the feed chute at approximately 9:30 pm (2130 hours). Before leaving the explosive containment room (ECR), the DPE entrants cleaned the liquid agent strainer and placed the used strainer sock with its GB agent-saturated debris on top of the DFS sliding gate. Approximately one pound of strainer waste was placed on the DFS sliding gate. This waste is currently believed to be the major source of agent involved in the release, although the ECR was highly contaminated with GB from processing earlier during the day, and vapors were drawn from the ECR into the DFS during the incident contributed as a source of agent. During this maintenance operation, temperatures, flow rates, and pressures in the DFS and pollution abatement system (PAS)² varied greatly. At 10:02 pm (2202 hours) the Kurz® exhaust gas flow meter in the DFS PAS failed, causing a loss of system purge and an automatic shut-down (lock-out) of burners in both the DFS kiln and the DFS afterburner (AFB). High airflow rates through the PAS resulted in scrubber fluid being drawn through the air flow meter into the demister. This transfer of fluid through the meter is the probable cause of its failure. During initial attempts to re-light these burners, at 11:26 pm (23:26 hours), the Automatic Continuous Air Monitoring System® (ACAMS) station PAS 701C³ (common stack) went into alarm at 0.67 allowable stack concentration (ASC)⁴. At 11:28 pm (23:28 hours) ACAMS station PAS 701A (common stack) went into alarm at 1.57 ASC, and at 11:41 pm (23:41 hours) ACAMS station PAS 702 (DFS

¹ The primary components of the DFS are a rotary kiln, a cyclone, and an afterburner connected to a pollution abatement system (PAS). The function of the DFS is to incinerate drained rockets, landmines, and energetics removed from projectiles. These objects are incinerated in the kiln with the products of combustion flowing to the afterburner where the gases are thermally treated. Afterburner exhaust gases then flow to the DFS PAS where they are further processed. The metal parts and other noncombustibles that discharge from the kiln are further thermally treated in the heated discharge conveyor.

² Each of four furnaces systems at TOCDF has a PAS to cool and chemically treat the exhaust gases before they are released to the atmosphere. Each PAS consists of a quench tower, a venturi scrubber, packed bed scrubber tower, demister, exhaust blower, emergency exhaust blower, various recirculation and transfer pumps, and associated piping and instrumentation. All four PASs discharge exhaust gases to one common stack.

³ Agent monitoring on the common stack consist of "near-real-time" monitoring by three ACAMS stations (PAS 701A, PAS 701B and PAS 701C) and confirmational monitoring by a DAAMS station associated with each of the three ACAMS stations. Two of the ACAMS stations, with their associated DAAMS stations, are monitoring the common stack at all times. The analytical cycles of the two ACAMS are staggered to ensure continuous sampling of the common stack. When possible these two ACAMS will have dissimilar chromatographic columns to provide dual column confirmation of analyte response. The ducts from the PAS of the four incinerators are each monitored by a ACAMS and DAAMS. Station PAS 702 is on the DFS PAS duct.

⁴ The ASC is a ceiling value that serves as a source emission limit, and not as a health standard. It is used for monitoring the furnace ducts and common stack. The ASC provides an early indication of an upset condition. Modeling of worst-case credible event and conditions at each installation must confirm that the general population limit (GPL) monitoring level is not exceeded at the installation boundary as a consequence of releases at the ASC. The ASC value for GB is 0.0003 mg/m³. The terminology 0.67 ASC means 0.67 times the numerical value of the ASC (0.0003 mg/m³).

duct) went into alarm at 1.45 ASC. During a second attempt to re-light these burners, at 12:28 am (00:28 hours, May 9, 2000) ACAMS station PAS 702 went into alarm at 0.87 ASC. At 12:29 am (00:29 hours) ACAMS station PAS 701B went into alarm at 0.39 ASC; and at 12:30 am (00:30 hours) ACAMS station PAS 701C went into alarm at 0.56 ASC.

A DFS control room operator (CRO) was on duty at the time of the incident. Although he had completed all required training and was fully certified to be a DFS control room operator, he was relatively inexperienced in operating the DFS under non-normal maintenance conditions. However, this control room operator was being assisted by a second control room operator who had more experience in operating the DFS in non-normal conditions. Believing that the kiln was free of hazardous material, the Supervisor Control Room Operator (SCRO) decided that this was an opportune time for on-the-job-training and allowed the relatively inexperienced control room operator to continue to work to bring the DFS back to normal operating conditions. At 11:26 pm (23:26 hours) when PAS 701C alarmed at 0.67 ASC the control room supervisors responded to the alarm, but because they believed the DFS was free of agent, they allowed the DFS recovery efforts to continue. When PAS 701A alarmed 2 minutes later, the control room staff still did not believe that the DFS could be the source of agent because the DFS duct ACAMS (PAS 702) was not in alarm. Their goal continued to be to purge the DFS system and re-light at least one of the AFB burners to maintain the AFB temperature above 1000 degrees. However, after PAS 702 went into alarm at 11:41 pm (23:41 hours) the SCRO directed the DFS CRO to bottle-up (or isolate) the DFS/DFS PAS at 11:44 pm (23:44 hours).

Although the Depot Area Air Monitoring System (DAAMS) tubes confirmation analyses had not been completed by the laboratory, the SCRO directed the DFS CRO to purge the DFS and re-light the AFB at 12:23 am (00:23 hours, May 9). The control room staff apparently continued to believe that no agent was present in the DFS. However, when at 12:28 am (00:28 hours), the PAS 702 went into alarm, followed by PAS 701B at 12:29 am (00:29 hours) and PAS 701C at 12:30 am (00:30 hours), the SCRO directed the DFS CRO to again bottle-up the DFS PAS at 12:32 am (00:32 hours).

In summary, because of inadequate DFS temperatures, loss of kiln and AFB flame, and decreased residence times through the DFS and PAS due to abnormally high airflow rates, a small amount of GB agent escaped destruction and was released through the common stack. This release occurred during a non-normal maintenance procedure under incinerator conditions, which do not reflect normal operations.

Agent Air Monitoring Systems (TOCDF)

Agent Monitoring Time Line:

The following time-line delineates the ACAMS alarms that occurred during the release of GB.

May 8, 2000	11:26 pm (23:26)	PAS 701C alarms at 0.63 ASC
	11:28 pm (23:28)	PAS 701A alarms at 1.57 ASC
	11:40 pm (23:40)	PAS 701A peaks at 3.39 ASC
	11:41 pm (23:41)	PAS 701C peaks at 3.63 ASC

(Agent Monitoring Time-Line, continued)

	11:41 pm (23:41)	PAS 702 alarms/peaks at 1.45 ASC
	11:51 pm (23:51)	PAS 701A clears alarm
	11:53 pm (23:53)	PAS 701C clears alarm
May 9, 2000	12:08 am (00:08)	PAS 702 clears alarm
	12:28 am (00:28)	PAS 701B alarms at 0.39 ASC
	12:29 am (00:29)	PAS 702 alarms at 0.87 ASC
	12:29 am (00:29)	PAS 701C alarms at 0.56 ASC
	12:31 am (00:31)	PAS 701B peaks at 0.74 ASC
	12:32 am (00:32)	PAS 701C peaks at 0.81 ASC
	12:32 am (00:32)	PAS 702 peaks at 1.07 ASC
	12:38 am (00:38)	PAS 701C clears alarm
	12:40 am (00:40)	PAS 701B clears alarm
	12:56 am (00:56)	PAS 702 clears alarm

Automatic Continuous Air Monitoring System (ACAMS) Overview:

ACAMS stations on the common stack (PAS 701-A, B, and C) functioned as designed in detecting the presence of chemical agent GB in the stack exhaust and alerting the workers (see Figure 1). ACAMS station on the DFS duct (PAS 702) also detected GB, but at a lower level than expected based on the concentrations seen by common stack ACAMS (see discussion in Quality Control). Careful review of data from ACAMS monitoring the ECR, the Explosive Containment Vestibule (ECV), and other areas involved in the incident show results consistent with known plant munitions and maintenance operations. During the incident, monitoring personnel within the plant responded timely and appropriately.

Review of the strip charts containing the ACAMS chromatograms from PAS 701 A, B, and C and PAS 702 showed that the chromatography (i.e., responses observed during the incident) were identical to the responses seen during quality control challenging with known GB agent. The chromatographic peaks were well defined and centered in the retention time window for GB. All Monitoring Branch personnel interviewed during this investigation were fully confident that the PAS 701 and PAS 702 ACAMS detected GB. Careful review of these same strip charts also showed the occurrence of background peaks, possibly caused by various products of incomplete combustion, whose appearance coincided with documented upset conditions in the DFS and/or the DFS PAS.

A review of ACAMS monitoring data for ECR B shows a relationship between AFB and the GB concentration in the ECR B. That is, as the AFB pressure became more negative, drawing additional GB-contaminated air from ECR B into the DFS kiln, a rapidly decreased concentration in the ECR B was observed. These data support the assumption that the contaminated ECR contributed as a source of agent involved in the release. Additionally, a dramatic increase in the ECR GB concentrations from non-detected to approximately 80 times the time-weighted average (TWA)⁵ value coincided with the reported time of the DPE entry into this room. All this air monitoring information supports the reported timeline of events.

⁵ The TWA is the airborne concentration to which unprotected workers may be repeatedly exposed for 8 hours per day, 5 days per week, for a working lifetime without adverse health effects. This monitoring level is operationally treated as a ceiling value for the purpose of masking workers at demilitarization facilities. In 1988, CDC recommended a worker control limit for GB at 0.0001 milligrams per cubic meter air (mg/m³) averaged over 8 hours. In the demilitarization program, this numeric control limit has been called a TWA. In this instance, 80 times

During the investigation, TOCDF staff indicated they had experienced excessive numbers of false positives during the period before the incident. A review of the TOCDF ACAMS common stack alarm report for April and May 2000 showed 37 alarms among the three stack ACAMS (PAS 701 A, B, C). Of these 37 alarms, four were involved in the incident, 22 were alarms associated with waste-feed cut-off tests within the plant, and 10 alarms occurred because of an interference (none were confirmed with DAAMS tubes). The remaining alarm was a non-confirmed unknown source. All 10 alarms associated with the interference involved only a single ACAMS and exhibited an abnormal chromatographic peak. In the case of the incident, both ACAMS monitoring the common stack went into alarm and exhibited a well-formed chromatographic peak in the retention time window for GB. Because the two involved ACAMS have different types of columns, the simultaneous alarms were essentially a confirmation of presence of GB. Therefore, control room personnel should not have discounted this information. During April and May, the only times when two ACAMS simultaneously alarmed (other than actual incident) was during the performance of waste-feed cut-off tests. All other false-positive alarms during this time frame involved only one of the two ACAMS monitoring the stack.

The problem with false-positive alarms related to waste-feed cut-off tests reportedly are related primarily to liquid incinerator #2. Initial indications suggest possible fuel-rich conditions during the test may yield products incomplete combustion. The source of this problem is under investigation by TOCDF monitoring personnel. Solving this problem would substantially reduce the number of false-positive alarms.

Depot Area Air Monitoring Systems (DAAMS) Confirmation Overview:

DAAMS analyses confirmed the presence of GB in the common stack and the DFS duct. Qualitatively, all available DAAMS flame photometric detector (FPD) and mass spectral (MS) data are consistent with the identification of GB. Quantitatively, DAAMS results are consistent with ACAMS concentrations detected in the common stack. Laboratory personnel followed established laboratory operating procedures, and all laboratory analytical instrumentation were operating well within established quality control limits.

Quality Control (QC):

ACAMS:

A careful review of the biweekly quality control data, which covered the period before, during, and after the event, indicated that ACAMS involved were operating within established quality control parameters. A review of the "ACAMS Weekly/Daily Operational Log" for each of the ACAMS at stations PAS 701 A, B, and C showed that all three instruments demonstrated consistent recoveries of quality control challenges of 90% or greater during the 24-hour period centered around the time of the incident. In accordance with established quality control procedure, these ACAMS are challenged every 4 hours with a known quantity of GB agent. Also, during this timeframe, the PAS 702 ACAMS demonstrated recoveries of 90%-105%. This

the TWA means 80 times the numerical value of the TWA, not the actual average over 8 hours, because the value is treated as a ceiling value. It may be described elsewhere in the document in the format such as "80 TWA."

ACAMS is challenged every 24 hours according to established quality control procedures. The criterion for acceptable quality control challenges is 100% +/- 25%.

A review of the data in the Instrument Log Books for the sample dilution-control units on the three PAS 701 ACAMS and the DFS duct (PAS 702) ACAMS showed that all of these units have been operating well within the +/- 25% criterion since the April 1, 2000.

A review of ACAMS data generated during the event showed an inconsistency between the results obtained from the ACAMS on the common stack (701 A, B, and C) and the ACAMS on the DFS duct (PAS 702). Because the DFS duct feeds directly into the common stack, a predictable correlation between PAS 702 and PAS 701 would be expected. Because of dilution effects in the common stack from other incinerators, the concentrations at PAS 702 would be expected to be greater than those observed at PAS 701. Also, because PAS 702 is upstream from PAS 701, one would expect PAS 702 to go into alarm before, or at least concurrently with, PAS 701. However, in this incident the opposite was observed in both cases.

Recognizing that routine quality control challenges only evaluate agent transfer efficiencies through heated transfer tubes that extend 50 to 70% of the probe length, CDC representatives requested that the PAS 701 and 702 ACAMS probes be removed and challenged from the distal end. Results showed low and inconsistent transfer efficiency for PAS 702. The initial probe challenges from the distal tip were 24% and 57%. After washing the sample tube with deionized water, no (0%) transfer efficiency was noted. Flushing the PAS 702 probe again with deionized water, followed by air-drying, resolved the transfer efficiency problem (efficiency improved to 118%). The "when, where, and what" characteristics of the contaminant(s) causing the apparent low agent transfer efficiency are unknown. However, a plausible cause presented by TOCDF monitoring personnel is the development of water condensation in the probe, which impairs agent transfer. ACAMS chromatographic data observed on PAS 702 during the event could be consistent with possible absorption and desorption of agent in the PAS 702 sample probe. Data from distal-end evaluations of the PAS 701 A, B, and C probes demonstrated acceptable agent transfer efficiencies (75%-105%). Because of the apparent problem with the PAS 702 sample probe, the quantitative data from PAS 701 A, B, and C were used to conduct the risk assessment.

Follow-up evaluations of agent transfer from the end of the probe on May 17, 2000, showed 90% of higher transfer for common stack PAS 701 A, B, and C and metal parts furnace PAS 703. However, the distal end agent transfer check for Liquid Incinerator PAS 704 failed with a 55% transfer. Following rinsing with deionized water, the transfer efficiency increased to 80%.

DAAMS:

The DAAMS tubes are used to conduct more refined chromatography to confirm whether an ACAMS alarm is actually GB agent or an interference. A review of quality control data from the stations DAAMS PAS 701 A, B, and C and DAAMS PAS 702 stations (quality plant [QP])⁶, and

⁶ A QP is a quality control sample that has been spiked with a known volume and concentration of dilute chemical agent and exposed to the plant atmosphere or sample matrix.

the quality control data from the laboratory instrumentation (quality laboratory – QL)⁷, indicated that these systems were functional and operating properly. That is, these quality control parameters indicated that the DAAMS data generated during the release were valid. QL samples were run before and after the actual field samples related to the release to ensure that the gas chromatographs/mass spectrometer (GC/MS) and GC/FPD were operating properly and were in control. The recoveries of the QL samples analyzed in conjunction with the first and second stack alarms were 82% and 74%, respectively, which are within the established criterion of 100%+/-35%. The retention times for GB in the field samples were consistent with the agent GB in standards and quality control samples. The ion ratios observed in the MS analyses of these same field samples were well within the established range.

Personnel Qualification and Performance:

Interviews, observations of work, and available documentation, indicated that the monitoring and analytical staff appeared to be well qualified and proficient at their jobs.

Perimeter Network Air Monitoring System

Eleven perimeter-monitoring stations are located at various points around the perimeter of Deseret Chemical Depot (Figure 2). The perimeter stations use DAAMS tubes to collect air samples over 12-hour sampling periods at a flow rate of approximately 0.5 liters per minute. The sampling is accomplished with two tubes that are aspirated simultaneously at each station. After sampling, the DAAMS tubes are analyzed at the Chemical Agent Munitions Demilitarization System (CAMDS), which is located near TOCDF. Perimeter DAAMS tubes sampled air continuously through the event from 6:00 pm (1800 hours) on May 8, 2000 to 6:00 am (0600 hours) on May 9, 2000. This time frame brackets the times of the two-phase stack release. One DAAMS tube from station #905 showed a discernible chromatographic peak at the expected retention time of GB. Calculated as GB, the observed response equated to a mass of GB of 0.03 nanograms (ng). Over the 12-hour sample period, this quantity of GB would equate to approximately 3% of the general population limit (GPL)⁸ for GB (technically, the GPL is calculated over 72 hours). However, the meteorologic data from the time of the incident indicates that station 905 was not within the calculated plume area. A careful review of chromatographic data from downwind perimeter stations 906, 907, and 910 showed no discernable peaks at the retention time for GB.

The second DAAMS tube from perimeter station 905, which could have been utilized for confirmatory analysis, was desorbed (or cleaned) according to existing policy, which essentially states that chromatographic responses equivalent to less than the “reporting limit” (0.2 GPL)⁹ will not be evaluated. Because of the frequency of these low-level responses, i.e., those less than

⁷ A QL is a quality control sample that has been spiked with a known volume and concentration of dilute chemical agent and may be aspirated long enough to remove residual solvent. QL samples are used to verify calibration status of the DAAMS gas chromatographs.

⁸ The GPL is defined as a 72-hour time-weighted average concentration for indefinite unprotected exposure (24-hours/day, 7-day/week for a 70-year lifetime) of the general population without adverse health effects. In 1988 CDC recommended a general population Control Limit for GB at 0.000003 milligrams per cubic meter air (mg/m³) averaged over 72 hours. In the demilitarization program, this Control Limit has been called a GPL.

⁹ The terminology 0.2 GPL means 0.2 times the numerical GPL value (0.000003 mg/m³).

the reporting limit, CDC staff reviewed perimeter monitoring data for GB agent from April 1, 2000 to May 17, 2000. The detailed analysis and conclusions can be found in Attachment A.

Gas chromatograph calibration checks for each of the three instruments were analyzed at the beginning of each analytical block of perimeter DAAMS samples. These checks verify retention time, sensitivity, and the calibration curve. A careful review of quality control data for May 7-10, 2000 indicated that QL samples and QP were not necessarily run on every instrument for every day. Regarding the samples directly related to the time of the event, the field samples were analyzed on gas chromatographs #1 and #2; however, the QL and QP samples related to this time frame were analyzed on gas chromatograph #3. Quality control samples did not bracket these field samples. See Attachment B for chronological sequence of analyses.

Evaluation of Potential Impact on Public Health

GB is a volatile chemical warfare agent, which makes it primarily an inhalation hazard. It is toxicologically related to organophosphate insecticides, which produce adverse effects on the nervous system by inhibiting cholinesterase (ChE) enzyme activity. The route of exposure of GB can include the eyes, respiratory tract, and skin. One of the earliest sign of exposure to GB is miosis or constriction of the pupil of the eye. Following release into the environment, GB is rapidly dispersed as discussed below. According to Kingery and Allen, nerve agents in the atmosphere are degraded by photolysis and/or radical oxidation.¹⁰ Nerve agents that may be absorbed into water or soil will degrade through hydrolysis. The rate of degradation will depend on the temperature and pH of the media.

The Department of the Army initially reported to CDC that the amount of agent released was approximately 18 milligrams GB. As late as June 15, 2000, the Army has reported that based on refinement of its original calculations, the amount of agent involved during the event ranged between 20 and 35 milligrams. CDC did not use the original 18-milligram value or the revised values for our risk assessment. Instead, CDC's dispersion modeling assumed the highest concentration ACAMS cycle (3.63 ASC) was continually present for a 30-minute period, which is approximately equal to the duration of the two-phase event. Using this assumption, the total agent release for CDC's worst-case model and exposure analysis would be equivalent to 46 mg over the entire release. CDC believes this to be a substantial over-estimation of the actual release amount; and therefore, very conservative for the examination of human health implications.

CDC used information gathered from the investigation and the SCREEN3 EPA-approved dispersion model to evaluate potential human health consequences of this release. The SCREEN3 model is used for many New Source Review (NSR) and other air permitting applications. The SCREEN3 model is based on steady-state Gaussian plume algorithms. SCREEN3 is applicable for estimating ambient impacts from point, area, and volume sources out to a distance of about 50 kilometers. The SCREEN3 model is conservative; if no impact is

¹⁰ Kingery AF, Allen HE. The Environmental Fate of Organophosphorous Nerve Agents: A Review. *Toxicol Environ Chem* 47:155-184 (1995).

predicted from this screening model, additional enhanced investigations using more refined models are considered unnecessary.¹¹

As discussed, worst-case assumptions were used in the model to predict the maximum possible public health impact of the release---that is, the maximum release concentration was assumed constant for the entire 30-minute release, although monitoring data indicate this peak concentration actually existed for approximately 6 minutes or less. (See Attachment C for more detail.) Based upon the results of this modeling and a 30-minute duration of the release, the model predicted the maximum possible exposure to GB at ground level was less than 1/10 of 1% of the exposure one would receive if exposed to the GPL for 72 hours. See Figure 2 for a diagram of the estimated plume direction.

To evaluate the maximum possible impact on the health of workers at TOCDF during the GB release, the model was again run using worst-case parameters. Although local meteorologic data indicated that downwash conditions (wind speed and direction conditions that result in rapid movement of stack gases to ground level near the plant) probably would not have occurred during the release, the downwash option was used to ensure worst case scenario. Even with this most conservative approach, estimated maximum agent concentrations were well below the established 8-hour TWA occupational exposure limits for GB. Considering potential exposure for the entire release period, the maximum possible exposure was less than 1% of the TWA. In actuality, TOCDF workers masked early during the release; consequently exposure would have been far less than the amount used for this analysis.

Medical Clinic

An exposed worker is defined as a person who potentially exhibits clinical signs and symptoms of nerve agent intoxication and/or has a red blood cell ChE depression. This ChE depression may result from nerve agent exposure. CDC is not aware of any clinical signs and symptoms reported by the workers involved with this event. Because no evaluations of TOCDF personnel ChE levels were performed directly in connection with this GB release, CDC requested the medical clinic to provide records from routinely collected ChE samples during this time frame in which the worker's ChE depression exceeded 10% of his/her baseline. Normally, a person with a depression of 25% or greater is removed from the work area and given weekly ChE evaluations. Such a person is not allowed to return to work until his/her ChE value returns to at least 80% of his/her baseline value.

During the medical clinic's normal medical surveillance, blood samples for ChE levels were drawn on May 8, 9, 10, 11, 12, and 13. These specimens were processed during several laboratory runs. Laboratory run 505 (collected May 7, 8, and 9) included 42 specimens with 17 specimens being the first or second baseline specimen, and none exceeded the 10% depression point. In addition, 13 of these samples were tested by U.S. Army Center for Health Promotion and Preventive Medicine (USCHPPM) and met its quality control standards. Laboratory run 506 consists of 26 specimens with 8 specimens being the first or second baseline specimen. None of

¹¹ Environmental Protection Agency. Requirements for Preparation, Adoption, and Submittal of State Implementation Plans (Guideline on Air Quality Models), 40 CFR, Part 51. Federal Register, 65 (78), April 21, 2000.

these samples exceeded the 10% depression point and 8 samples were tested by the USCHPPM. Laboratory run 507 consisted of 42 samples, and 3 of these samples exceeded the 10% depression value (i.e., 10%, 11%, and 13%). Twenty of these samples were quality control tested by USCHPPM. The highest percent depression was noted in a control room operator who should not have had any exposure because the control room is equipped with positive pressure/carbon filtration ventilation system. Review of the medical records indicated none of these persons exhibited any symptoms and all denied any pesticide exposures away from work. On May 23 and 24, blood samples were drawn from these three individuals for follow-up ChE determinations. ChE results from these follow-up samples indicated that the apparent depressions recovered to 3%, 5%, and 6%, respectively. There is no evidence to indicate that these ChE depressions resulted from nerve agent exposure and were most likely random occurrences.

Emergency Operations Center (EOC) notification

According to the EOC Free Form Log, the EOC was notified by the TOCDF control room in a timely manner at 11:29 pm (23:29 hours) on May 8, 2000, that the PAS 701C was in alarm at 0.63 ASC, and PAS 701A was in alarm at 1.57 ASC. This information correlates with the agent monitoring time line obtained from the Process Data Acquisition and Recording System (PDARS). However, the monitoring team determination that *agent was probable* was not recorded in the Free Form log. At 2:14 am (02:14 hours), the EOC was informed that the PAS 702 DAAMS was non-confirmed. This non-confirmation was later found to be incorrect because of a DAAMS tube mix-up as discussed in the Quality Control section of this report. The EOC reportedly conducted dispersion modeling using D2PC at the time of the incident. The results of this modeling reportedly indicated no significant impact. However, a copy of this modeling was not saved, nor was the time of the modeling documented in the EOC Free Form Log. The earliest D2PC dispersion modeling record had a time listed of 1:44 am (01:44 hours) on May 9, 2000. Records were available for several additional D2PC runs that were conducted later during the morning of 5/9/00.

The Memorandum of Understanding between the Deseret Chemical Depot and Tooele County for Information Exchange states that "notification shall be made at the earliest possible opportunity, even if an event is only suspected..." However, according to the Free Form Log, Tooele County was notified of the release at 3:34 am (03:34 hours), which represented approximately a four-hour delay. The release was classified as a limited area event.

Contingency Procedures

The *Contingency Procedure for Agent Detected in the Stack* (EG 040.A01, Revision 2) was reviewed. These contingency procedures include *Immediate Actions* (Section II), *Follow-up Actions to be Taken if Agent is Probable* (Section III), and *Follow-up Actions to be Taken if Agent is Not Probable* (Section IV). According to the Contingency Procedure, the Monitoring Response Team reports on whether *there is* or *there is not* a probability of agent. During the release, the monitoring team made the determination that agent was probable. However, this information apparently was discounted or misunderstood by the control room, and the procedure outlined in the *Follow-up Actions to be Taken if Agent is Not Probable* apparently was followed.

The course of decisions, such as unmasking the site following the clearing of the ACAMS, may have been different if the probable agent release protocol was followed. However, the guidance in the *probable agent* protocol is unclear regarding the unmasking of the site. Several actions would have been taken if the probable agent procedures were followed.

Conclusions

1. A careful evaluation of the extent and circumstances of the release at TOCDF indicates that the quantity of GB released would be rapidly dispersed into a plume having a low concentration.
2. Based upon modeling data and current toxicologic data on GB, no short-term or long-term adverse health or medical effects on the TOCDF workers or the surrounding population would be expected.
3. The stack ACAMS (PAS 701 A,B,C) were operating in control and provided valid data detecting and quantifying the release of GB. Operational personnel were alerted in a timely manner of the release.
4. The DFS duct PAS 702 ACAMS did not provide valid data during the event because of poor transfer line efficiency. The source of the poor agent transfer has not been identified. This failure of the DFS PAS 702 contributed to the initial erroneous assumption by control room personnel that no agent source was present in the DFS.
5. Initially, the control room personnel incorrectly assumed that no agent source existed in the DFS system. This incorrect assumption resulted in continuation of their attempts to purge and re-light at least one of the AFB burners even after the second stack ACAMS (PAS 701A) went into alarm. Because the two involved ACAMS have different types of columns, the simultaneous alarms were essentially a confirmation of presence of GB. Control room personnel apparently discounted or misunderstood this information.
6. The contingency procedure implemented during the event incorrectly utilized the protocol that assumed presence of agent was not probable. The follow-up actions as described in the *probable agent release* protocol were not taken.
7. Thirty-seven alarms occurred during April and May 2000. Four were true alarms related to the incident, and 22 were false alarms related to waste-feed cut-off testing. Eleven additional false positive-alarms of unknown origin occurred during this period. The frequency of false-positive alarms may have contributed to the control room operations' initial erroneous assumption that no agent was present in the DFS during the event.
8. Perimeter-monitoring samples collected during the time of the release at station #905 indicated a chromatographic peak consistent with the agent GB. The quantity of compound observed when calculated as GB was equivalent to 0.03 nanogram of agent. However, the meteorologic data collected during the time of the event does not support a relationship between the release at the common stack and the observed response at station

#905. The B DAAMS tube was discarded, and additional analysis was not possible to confirm or deny the presence of GB.

9. Analyses of quality control samples did not bracket the analyses of field DAAMS perimeter samples. The laboratory analyzed quality control samples for the day of the incident on a different gas chromatograph from that used for the actual field samples.
10. The release occurred during a “non-normal” maintenance procedure under abnormal incinerator conditions after DFS processing had been suspended. This event does not reflect the efficiency of the DFS with its associated PAS under normal operating conditions.
11. Communications between the Control Room and the Emergency Operation Center were timely, and the Emergency Operation Center was updated throughout the incident. However, the Emergency Operation Center delayed informing Tooele County for approximately four hours, which appears inconsistent with the agreement to notify the County “at the earliest possible opportunity, even if an event is only suspected.”

Recommendations

1. The process for implementing a “non-normal” procedure should be carefully reviewed to ensure it does not exceed the capabilities of the facility or personnel. An evaluation of the non-normal procedure should ensure that it can be conducted safely and without incident.
2. When stack or duct ACAMS alarms are activated, only the most highly qualified personnel available should be controlling the plant operations. When any agent-related alarm has been activated, any type of on-the-job training is inappropriate.
3. All stack and duct ACAMS alarms should be considered as agent until valid operational data or DAAMS confirmation show otherwise. Assumption of no agent source should be made only after a thorough investigation.
4. The decision making process associated with the *Contingency Procedure for Agent Detected in the Stack* needs to be carefully evaluated to ensure that the correct procedures are implemented during an agent release. The Contingency Procedure document should be carefully evaluated to ensure that all information is appropriate and complete.
5. TOCDF should continue and intensify its investigations to identify and eliminate the source of the false stack alarms.
6. The dilution tube in the common stack and duct ACAMS/DAAMS sample probes should be positioned a uniform distance from the distal end of the sample probe. Optimal distance should be determined through careful evaluation of challenge and other quality control data.

7. The ACAMS and DAAMS sample probes for the common stack and all furnace ducts should be challenged from the distal end on a weekly basis. This testing should be continued until adequate data to confirm that moving the end of the dilution tube to a uniform distance near the distal end resolves questions associated with agent transfer.
8. The reasons for the unintentional switching of PAS 702 and 704 DAAMS tubes need to be carefully evaluated. Procedures to prevent reoccurrence of this event should be implemented.
9. Following this event, the perimeter DAAMS tubes were not pulled until the end of the 12-hour aspiration time at approximately 6:00 am (06:00 hours) on May 9, 2000. After a confirmed release from the facility, the perimeter DAAMS tubes should be pulled and analyzed as soon as practical.
10. Low-level perimeter DAAMS data with discernable chromatographic peaks within agent gates, even data below the reporting limit (0.2 GPL), need to be evaluated. The B tubes associated with these low-level responses need to be retained for confirmational analyses.
11. Current quality control procedures related to analysis of perimeter DAAMS samples should be reviewed for possible improvements.
12. TOCDF should conduct an engineering evaluation of the location and operation of the Kurz® flow meter wherever used. Additionally, an evaluation of systems to isolate the DFS kiln from the remainder of the incinerator system should be undertaken. The DFS feed chute and related gates should be evaluated for proper function. Components of the DFS, including the PAS, should be systematically examined to ensure proper functioning before resuming operations.
13. The EOC should review procedures to ensure that Tooele County is informed in a timely manner of potential and confirmed agent releases. The notification process for other organizations with potential involvement following a release should be reviewed through the Chemical Stockpile Emergency Preparedness Program (CSEPP).
14. The EOC should review its basic procedures for documentation to ensure that it can accurately and comprehensively recreate the sequence of events and its justification for actions.
15. For informational purposes, the procedures for calculating the quantity of agent released should be standardized and readily available.

Figure 1

Figure 1: Common Stack & DFS Duct ACAMS Response

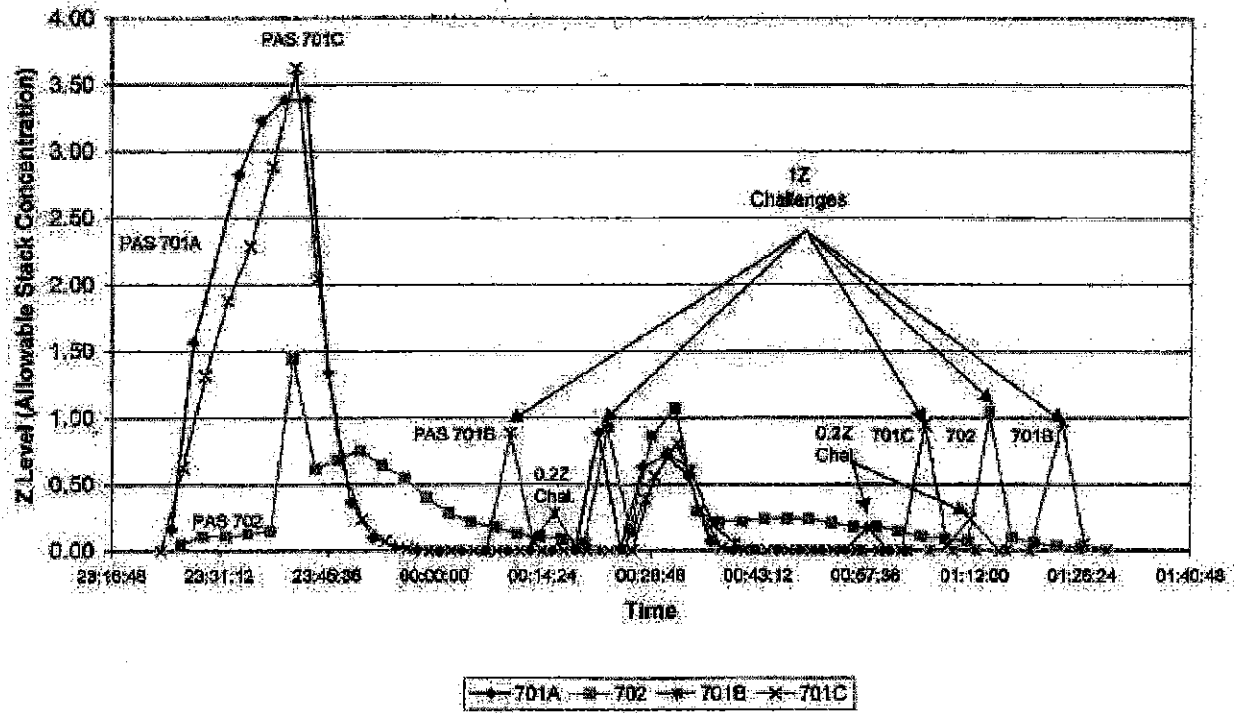
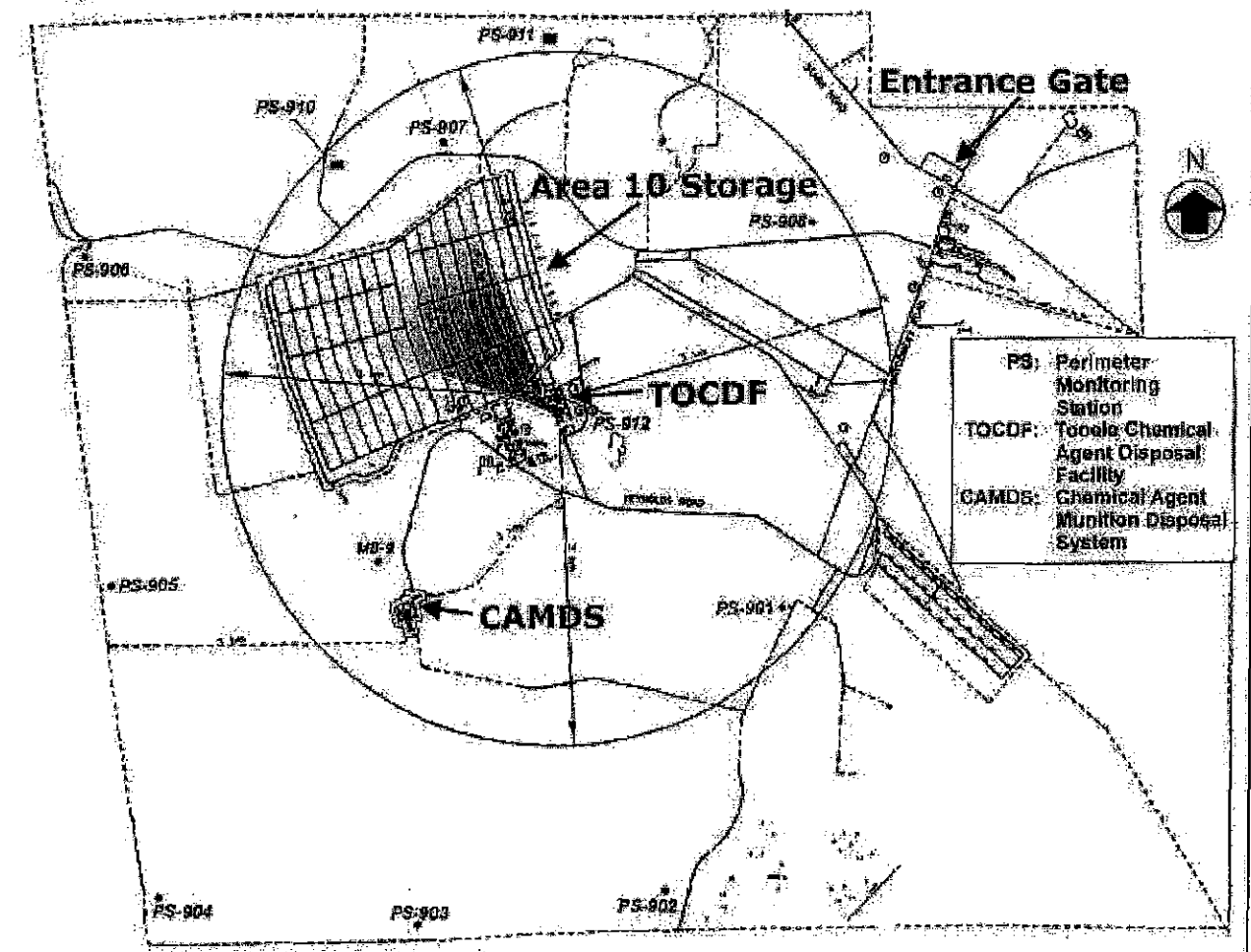


Figure 2

Figure 2 Estimated Stack Release Plume



Attachment A

Review of Perimeter Monitoring Data for GB Agent April 1, 2000 to May 17, 2000

Background:

Between 11:26 pm (2326 hours) on May 8, 2000 and 12:56 am (0056 hours) on May 9, 2000, GB was released from the common stack of the TOCDF. This release of GB agent occurred during maintenance on the slide and tipping gates associated with the feed chute to the DFS. The agent was detected by the ACAMS on the common stack and the ACAMS on the DFS duct, and confirmation was conducted by analysis of DAAMS tubes from the common stack. In the evaluation of analytical data collected during the incident, a low-level response at the retention time of GB was observed on the gas chromatogram from the analysis of the "A" DAAMS tube from perimeter Station 905. Because the level of this response equated to a concentration less than the administratively set "reportable limit" of 0.2 GPL, the co-collected "B" DAAMS tube was not analyzed or retained for possible future analyses. Calculated as GB agent, the observed response equated to a found mass of 0.03 nanograms. Assuming an average sampling rate of 0.50 liters per minute and calculated over a 12-hour sampling period, this quantity is equivalent to approximately 0.03 GPL. Considering a worst-case scenario by using 30 minutes as the sampling period, which is approximately the length of the release, this quantity would equate to approximately 0.7 GPL over the 30 minutes. (Note: The GPL is normally calculated over a 72-hour sampling period; the above calculations over 12 hours and 30 minutes are presented for perspective only). To investigate possible relations between this "response" at Station 905 and the release of GB from the common stack, an in-depth review of perimeter monitoring and meteorologic data for the Deseret Chemical Depot for April 1, 2000 to May 17, 2000 was conducted.

Outline of Review:

1. "STC/MEC Sequence Summary Reports" with their related GC chromatograms for April 1, 2000 to May 17, 2000 were obtained from CAMDS laboratory.
2. Each GC chromatogram was carefully reviewed to identify "discernible peak" (response) at the expected retention time (RT) of GB. A "discernible peak" is defined as a chromatographic response whose estimated signal to noise ratio (S:N) is 3:1 or greater. Quality control data were reviewed to evaluate the consistency of recovery, RT, and chromatography.
3. Meteorologic data from the 12 meteorologic stations at Deseret Chemical Depot were obtained and carefully studied. Wind data collected at an elevation of 15 meters at Station 9 were used in the evaluation of relationships between TOCDF, CAMDS, or Area 10 and perimeter stations exhibiting "discernible peaks." Station 9 data were used because this

station is centrally located between CAMDS, TOCDF and the Area 10, and its data best represent the average or general meteorologic conditions for the entire Depot.

Summary of Findings and Conclusions:

1. A discernible peak at the expected RT of GB was observed 33 times in the perimeter monitoring data for the study period. Several S:N ratios were greater than 10:1, with some approaching 30:1 (Table 1).
2. With the available analytical data at the time of this review one *cannot confirm or deny the presence of GB on the 33 DAAMS tubes whose analyses produced the discernible peaks observed in the perimeter-monitoring data*. Analytically, the discernible peaks in the analyses of the perimeter monitoring samples are *not dissimilar* from the peaks observed in the analyses of GB spiked QP or QL samples analyzed in the same analytical run.
3. Relationship(s) *cannot* be demonstrated between the release of GB from the common stack and the occurrence of a “discernible peak” at the RT of GB from the analysis of the “A” DAAMS tube from Station 905.
4. During April 1, 2000 to May 17, 2000, the data exhibit two, somewhat ill-defined, clusters of discernible peaks. One cluster started with the sampling period of 6:00 am to 6:00 pm (0600 to 1800 hours) on April 3, 2000 and ended with the sampling period of 6:00 am to 6:00 pm (0600 to 1800 hours) on April 5, 2000. Six discernible peaks were observed during this approximately 48-hour period. The second “cluster” started with the sampling period of 6:00 am to 6:00 pm (0600 to 1800 hours) on May 7, 2000 and ended with the sampling period of 6:00 pm to 6:00 am (1800 to 0600 hours) on May 9, 2000. Eight discernible peaks were observed during this approximately 60-hour period. Also, 4 of the 8 discernible peaks observed in the second “cluster” occurred during the 6:00 am to 6:00 pm (0600 to 1800 hours) sampling period on May 7, 2000, which was approximately 30 to 36 hours before the agent release incident. A careful evaluation of the meteorological data for April 4 and May 7, 8, and 9 *could not* demonstrate any relationship between the occurrence of the discernible peaks at the RT of GB; the direction and speed of the winds at Meteorologic Station 9; and the locations of the perimeter-monitoring stations, TOCDF, CAMDS, or Area 10.
5. General evaluation of the meteorologic data supports the position that the compound(s) causing the discernible peaks at the RT of GB in the perimeter monitoring *is not GB*.
6. With the exception of two peaks observed on April 4, 2000, all discernible peaks represented a found-mass for GB well below the “reportable limit” of 0.2 GPL, when calculated over a 12-hour sampling period and an average sample flow of 0.5 liters per minute. Two peaks observed on April 4, 2000 (Station 912 with an area count of 1153 and Station 903 with an area count of 1344), could represent levels approximately at the 0.2 GPL. These two samples were analyzed on the same day and the same GC as the sample from Station 904 where a discernible peak with an area count of 842 was equal to a found mass of 0.15 ng and a 0.14 GPL. Based on these data, the area count of 1153 for Station 912 is approximately equivalent to 0.19 GPL and the area count of 1344 for Station 903 is equivalent to 0.22 GPL.

Based on the fact that an 1.0 GPL QP sample analyzed with the samples from Stations 912 and 903 gave an area count of 5601, one would estimate an area count of 1153 (Station 912 data) would be equivalent to a 0.21 GPL, and an area count of 1344 (Station 903 data) would be equal to a 0.24 GPL. (Note: The accuracy of these estimates is uncertain because the low quantity of agent found and the values are not calculated from an established calibration curve.)

7. No apparent relationship was identified between the occurrence of the discernible peaks and the GC instrument used in the analysis. Of the 33 perimeter-monitoring samples that showed discernible peaks at the RT of GB, 11 samples were analyzed on gas chromatograph #1, 12 samples were analyzed on gas chromatograph #2, and 10 samples were analyzed on gas chromatograph #3.
8. There does not appear to be a relationship between the occurrence of the discernible peaks and the specific sampling period. Of the 33 discernible peaks, 14 occur during the 6 am to 6 pm (0600 to 1800 hours) sampling period, and 19 occur during the 6 pm to 6 am (1800 to 0600 hours) sampling period.
9. All quality control data were not available in the data set. Several "out of control" QP and/or QL were observed. On at least two occasions, both the QP and QL were "out of control;" there is no indication of corrective actions being taken and the data from the field sample is reported as valid. Review of the available QC data indicated that the "observed RT" for GB was not consistent with the "Exp. RT" for GB. Apparently, the "Exp. RT" value in the computer file is not updated with the latest quality control data.
10. A limited number of VX analyses were included in the data set. At least three of these showed discernible peaks at the RT of GB.
11. A background compound is present in most perimeter monitoring samples. Its response level ranges from non-detected (ND) to the equivalent of 4 to 5 GPL if it were GB. In several perimeter monitoring samples, high quantities of this compound made observing low-level response at the RT of GB difficult. (Note: During the latter half of April, the laboratory had a problem with this background compound interfering with the analysis of VX on gas chromatograph #2. Apparently, the laboratory made some changes to correct or improve this problem.)
12. Meteorological data from Station 9 (MS-9) were used because this station is centrally located between CAMDS, TOCDF, and Area 10. This station is located in an open area and provided data at the 2-meter, 15-meter, and 30-meter elevations. A review of meteorologic data from the 12 stations showed a wide variation in wind speed and direction, with Station 9 tending to be close to the mean of all stations. Comparison of the data taken at 2 meters, 15 meters, and 30 meters showed minimal variation in wind direction associated with height. The 15 meter data were chosen for the evaluation of the discernible peaks.

Comments:

The Army can administratively establish "reporting limits" or "action limits or levels" for an analytical process; however, the "LOQ" or "MDL" cannot be administratively set for an analytical process or method. The "LOQ" is a statistically defined operational characteristic of an analytical method. A "discernible peak," that is, a peak or response with a S:N ratio of 3:1 or greater at the RT of the analyte of interest, *cannot* be administratively defined as a "non-detected." To do so would be of questionable scientific validity. The compound(s) causing the responses observed at the RT of GB in the perimeter monitoring data may, or may not, be GB. However, without valid analytical data or other technically defensible information to confirm the identity of the compound(s), or at least confirm that they are not of GB origin, the current problem(s) of how to programmatically respond to these chromatographic responses will continue.

Attachment A, Table 1Summary of Low Level Responses in Perimeter Monitoring Data
March 31, 2000 to May 17, 2000

Date	Station ID	GC Inst.	Start/End Times	Area Counts	Mass Found (ng)	Comments
3/31	905	GC-2	0600/1800	----- ⁽¹⁾	-----	Discernible Peak: S:N >4:1
3/31	901	GC-2	0600/1800	-----	-----	Discernible Peak: S:N >3:1
4/1	904	GC-3	1800/0600	-----	-----	Small Peak: S:N = 3:1
4/2	912	GC-2	0600/1800	132	0.06	Discernible Peak: S:N > 10:1
4/3	905	GC-3	1800/0600	-----	-----	Small Peak: S:N = 3:1
4/3	911	GC-1	0600/1800	209	(0.03) ⁽²⁾	“VX Run” with Discernible Peak at RT of GB: S:N >10:1
4/4	910	GC-1	1800/0600	240	(0.04)	“VX Run” with Discernible Peak at RT of GB: S:N >20:1
4/4	912	GC-1	1800/0600	1153	(0.21)	“VX Run” with Discernible Peak at RT of GB: S:N >30:1
4/4	904	GC-1	1800/0600	842	0.15	Discernible Peak: S:N >30:1
4/4	903	GC-1	1800/0600	1344	(0.24)	Discernible Peak: S:N >30:1
4/5	903	GC-1	0600/1800	-----	-----	Discernible Peak: S:N >5:1
4/9	908	GC-1	0600/1800	320	0.07	Discernible Peak: S:N >10:1
4/11	905	GC-3	1800/0600	-----	-----	Small Peak: S:N = 3:1
4/14	906	GC-3	1800/0600	-----	-----	Discernible Peak: S:N >5:1
4/15	907	GC-1	1800/0600	-----	-----	Very Small Peak: S:N = 3:1
4/15	907	GC-2	0600/1800	-----	-----	Small Peak: S:N = 3:1
4/22	906	GC-1	1800/0600	-----	-----	Discernible Peak: S:N >6:1
4/23	910	GC-2	1800/0600	-----	-----	Small Peak: S:N = 3:1
4/25	906	GC-1	1800/0600	217	0.05	Discernible Peak: S:N >20:1

Attachment A Table 1: (Continued)

Date	Station ID	GC Inst.	Start/End Times	Area Counts	Mass Found (ng)	Comments
4/29	906	GC-3	1800/0600	-----	-----	Small Peak: S:N = 4:1
5/5	903	GC-2	1800/0600	-----	-----	Small Peak: S:N = 3:1
5/7	901	GC-3	0600/1800	155	0.04	Discernible Peak: S:N >10:1
5/7	905	GC-3	0600/1800	533	0.12	Discernible Peak: S:N >20:1
5/7	908	GC-3	0600/1800	202	0.05	Discernible Peak: S:N >10:1
5/7	912	GC-1	0600/1800	296	0.04	Discernible Peak: S:N >5:1
5/8	902	GC-2	0600/1800	127	0.04	Discernible Peak: S:N > 5:1
5/8	904	GC-2	0600/1800	-----	-----	Small Peak: S:N = 3:1
5/8	905	GC-2	1800/0600	201	0.05	Discernible Peak: S:N can not be estimated due to high background peak
5/9⁽³⁾	905	GC-2	1800/0600	83	0.03	Discernible Peak: S:N >5:1
5/10	906	GC-3	1800/0600	395	0.05	Discernible Peak: S:N >20:1
5/15	910	GC-2	1800/0600	122	0.05	Discernible Peak: S:N >5:1
5/16	904	GC-2	0600/1800	77	0.03	Discernible Peak: S:N = 4:1
5/17	907	GC-3	1800/0600	614	0.15	Discernible Peak: S:N >20:1

Notes: (1) "Area Counts" and "Mass Found" values shown as "-----" were not provided in the data set from the CAMDS laboratory. Because the "Area Counts" for these discernible peaks were apparently not integrated at the time of analysis, "Mass Found" values cannot be calculated or even estimated for these samples.

(2) "Mass Found" values shown in () were not provided in the data set from CAMDS but were calculated using recovery data from QP and QL samples analyzed on the same day and on the same GC instrument as the perimeter samples. These "Mass Found" values should only be considered as estimate values.

(3) The sampling period of this perimeter-monitoring sample coincided with the release of 18 to 20 mg of GB agent from the common stack from 2300 hours on May 8 and 0100 hours on May 9.

Attachment B

Chronological order of analysis

Analytical Date: 7 May 2000 GC #1

Analytical Time	Station ID	Aspiration Date	Aspiration Time
1339	CalChk 1261390		
1347	901	7-May-00	1800/0600
1352	902	7-May-00	1800/0600
1355	903	7-May-00	1800/0600
1403	904	7-May-00	1800/0600
1408	905	7-May-00	1800/0600
1412	906	7-May-00	1800/0600
1416	QP906	7-May-00	1800/0600
1420	QL906	7-May-00	1800/0600
1424	907	7-May-00	1800/0600
1428	908	7-May-00	1800/0600

Analytical Date: 8 May 2000 GC #1

1345	CalChk 1291193		
1353	910	7-May-00	0600/1800
1357	911	7-May-00	0600/1800
1401	912	7-May-00	0600/1800
1405	910	8-May-00	1800/0600
1410	911	8-May-00	1800/0600
1414	912	8-May-00	1800/0600

Analytical Date: 9 May 2000 GC #1

702	CalChk 1291194		
708	906	9-May-00	1800/0600
712	907	9-May-00	1800/0600
716	908	9-May-00	1800/0600
719	906	8-May-00	0600/1800
724	907	8-May-00	0600/1800
727	908	8-May-00	0600/1800

Chronological order of analysis

Analytical Date: 8 May 2000

GC #2

Analytical Time	Station ID	Aspiration Date	Aspiration Time
1420	CalChk 1291196	8-May-00	1800/0600
1425	901	8-May-00	1800/0600
1429	902	8-May-00	1800/0600
1433	GL 902	8-May-00	1800/0600
1437	903	8-May-00	1800/0600
1441	904	8-May-00	1800/0600
1445	905	8-May-00	1800/0600
1448	906	8-May-00	1800/0600
1453	907	8-May-00	1800/0600
1456	908	8-May-00	1800/0600

Analytical Date: 9 May 2000

GC #2

1325	CalChk 1301245		
1336	901	8-May-00	0600/1800
1340	902	8-May-00	0600/1800
1344	903	8-May-00	0600/1800
1347	904	8-May-00	0600/1800
1351	905	8-May-00	0600/1800
1355	910	8-May-00	0600/1800
1359	911	8-May-00	0600/1800
1405	912	8-May-00	0600/1800
1410	CalChk 1301242		
1416	901	9-May-00	1800/0600
1421	902	9-May-00	1800/0600
1424	903	9-May-00	1800/0600
1428	904	9-May-00	1800/0600
1433	905	9-May-00	1800/0600
1437	910	9-May-00	1800/0600
1441	911	9-May-00	1800/0600
1444	912	9-May-00	1800/0600

Analytical Date: 10 May 2000

GC #2

1446	CalChk 1311188		
1451	910	9-May-00	0600/1800
1455	911	9-May-00	0600/1800
1459	912	9-May-00	0600/1800
1503	910	10-May-00	1800/0600
1510	911	10-May-00	1800/0600
1515	912	10-May-00	1800/0600

Chronological order of analysis

Analytical Date: 7 May 2000

GC #3

Analytical Time	Station ID	Aspiration Date	Aspiration Time
1143	CalChk 1251391		
1256	910	6-May-00	0500/1800
1259	911	6-May-00	0500/1800
1304	912	6-May-00	0500/1800
1309	910	7-May-00	1800/0500
1314	911	7-May-00	1800/0500
1318	912	7-May-00	1800/0500
1324	CalChk 1251070		
1331	901	6-May-00	0500/1800
1335	902	6-May-00	0500/1800
1340	903	6-May-00	0500/1800
1345	904	6-May-00	0500/1800
1350	905	6-May-00	0500/1800
1357	906	6-May-00	0500/1800
1401	QP905	6-May-00	0500/1800
1405	QL906	6-May-00	0500/1800
1408	907	6-May-00	0500/1800
1413	908	6-May-00	0500/1800

Analytical Date: 8 May 2000

GC #3

1249	CalChk 1281058		
1255	901	7-May-00	0500/1800
1259	902	7-May-00	0500/1800
1304	903	7-May-00	0500/1800
1308	904	7-May-00	0500/1800
1314	906	7-May-00	0500/1800
1319	QP906	7-May-00	0500/1800
1324	QL906	7-May-00	0500/1800
1328	906	7-May-00	0500/1800
1334	907	7-May-00	0500/1800
1339	908	7-May-00	0500/1800

Chronological order of analysis

Analytical Date: 9 May 2000

GC #3

1310 CalChk 1301241

1321	QP902	8-May-00	0600/1800
1325	QL902	8-May-00	0600/1800
1345	QP902	9-May-00	1800/0600
1349	QL902	9-May-00	1800/0600

Analytical Date: 10 May 2000

GC #3

1306 CalChk 1311187

1313	901	9-May-00	0600/1800
1317	902	9-May-00	0600/1800
1320	QP902	9-May-00	0600/1800
1324	QL902	9-May-00	0600/1800
1332	903	9-May-00	0600/1800
1335	904	9-May-00	0600/1800
1339	905	9-May-00	0600/1800
1343	906	9-May-00	0600/1800
1346	907	9-May-00	0600/1800
1354	908	9-May-00	0600/1800

1405 CalChk 1311190

1409	901	10-May-00	1800/0600
1420	902	10-May-00	1800/0600
1425	QP902	10-May-00	1800/0600
1429	QL902	10-May-00	1800/0600
1434	903	10-May-00	1800/0600
1438	904	10-May-00	1800/0600
1442	905	10-May-00	1800/0600
1446	906	10-May-00	1800/0600
1451	907	10-May-00	1800/0600
1456	908	10-May-00	1800/0600

Attachment C

Detailed Review of Modeling Parameters, TOCDF Release on May 8, 2000

The EPA SCREEN3 model (version dated 96043) was used to examine the downwind concentration potential exposure levels for the approximate 30-minute duration agent GB release from the TOCDF incinerator stack.

The following information was used to run the SCREEN model:

1. Full array meteorology was used to identify worst-case air dispersion conditions.
2. The model was run under the rural option, without fumigation.
3. Stack gas temperature was 388.7 degrees Kelvin (K).
4. Measured ambient air temperature was 285.4 degrees K.
5. Stack gas flow rate was 49,826 ACFM (average flow rate over duration of release event, adjusted for stack gas temperature).
6. Actual stack and local building dimensions were used to run the model.

For the modeling, the duration of the stack release was considered to be 30 minutes. To yield the most conservative (highest possible) results, the model was run using the highest reported 3-minute stack release rate of 3.63 ASC for the entire 30 minutes to examine the possible acute or short-term exposure impacts. The average concentration over the approximate 30-minute release was actually about half the concentration used for this analysis. One ASC is equivalent to 0.0003 milligram of agent GB per cubic meter (mg/m^3) of exhaust gas emitted from the stack.

The results of the peak-release model run showed the maximum ground level concentration (MGLC) of agent GB to be $1.3 \times 10^{-7} \text{ mg}/\text{m}^3$ at a distance of 391 meters downwind from the stack. The 72-hour General Population Level (GPL) for GB is $3.0 \times 10^{-6} \text{ (mg}/\text{m}^3)$. This concentration is a very low level of agent that is considered by CDC to be safe for exposure to the general public for a 72-hour exposure period. This stack release resulted in a maximum ground level (MGLC) concentration that was less than 1/10 of that standard GPL concentration, and it lasted for a relatively brief duration. Considering the actual duration of the release, if a member of the public had been at the MGLC location for the entire event, he/she would have had an exposure that was under 1/10 of 1% of safe exposure for the general public. Based upon the results of this model and the observation that the general public lives considerably farther from the emission source than 391 meters, where ground level concentrations would be lower than the MGLC, CDC believes this event poses no adverse impacts to worker or public health.

To examine the potential impact on worker health from this release, the 3-minute peak agent level was used in the SCREEN3 model with the downwash option selected. Although actual

meteorologic conditions did not suggest downwash conditions over the duration of the release, downwash conditions would result in the highest levels of agent concentration occurring fairly close to the plant where workers could be located. Accordingly, to examine the worst case for possible agent exposures, CDC elected to do a separate run of the model with this option implemented. The maximum 1-hour concentration (if the release had continued for an hour) was 2.7×10^{-6} mg/m³ at a distance of 82 meters from the plant stack. The 8-hour occupational exposure limit TWA for agent GB is 1×10^{-4} mg/m³. This exposure would have been less than 1% of the TWA if an employee remained unmasked at the MGLC point for the entire event. Given the relatively short duration of the release and the magnitude of the maximum potential exposure level below the worker TWA, the level of employee exposure would have been minimal. Additionally, the site was masked within a few minutes of the release alarm, thereby reducing potential exposure to shorter durations than shown above.

To summarize, both of the scenarios for potential public and worker exposures were considered using conservative assumptions and worst-case conditions. **When considering both level and duration of exposure, both exposure scenarios resulted in maximum estimated potential exposures that were well under 1% of the concentrations accepted by CDC as posing no adverse human health impact.**

This evaluation was prepared by CDC on May 16, 2000, using the best data available.



DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF SOLID AND HAZARDOUS WASTE

00-0920

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Dennis R. Downs
Director

288 North 1460 West
P.O. Box 144880
Salt Lake City, Utah 84114-4880
(801) 538-6170
(801) 538-6715 Fax
(801) 536-4414 T.D.D.
www.deq.state.ut.us Web

June 16, 2000

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Col. Bruce E. Pate
Commander
Deseret Chemical Depot
ATTN: AMSSB-ODC-RME
PO Box 250
Stockton, Utah 84071-0250

and

Mr. David Jackson
PMCD TOCDF
Project Manager
11620 Stark Road
Tooele, Utah 84074-5000

and

Mr. Michael J. Rowe
EG&G Defense Materials, Inc.
General Manager TOCDF
11600 Stark Road
Tooele, Utah 84074-5000

RE: May 8 and 9 Stack Release of Chemical Agent
Deseret Chemical Depot - TOCDF
EPA ID No. UT5210090002

Dear Col. Pate, Mr. Jackson and Mr. Rowe:

The Utah Division of Solid and Hazardous Waste (DSHW) has completed its investigation into the release of chemical agent from the TOCDF which occurred on May 8 and 9, 2000. Attached is a copy of the DSHW Investigation Report. The following are the conclusions reached in this investigation.

On the afternoon of May 8, 2000 the TOCDF had ceased the processing of chemical agent filled rockets because of a jam in the feed chute to the Deactivation Furnace (DFS) from Explosives Containment Room (ECR) B. Operators began the procedures to make an entry and clear the jam. This effort was delayed because the procedures required to make the entry could not be completed before shift change.

The night shift performed the operation of clearing the jam from the chute. During the process of clearing the jam large amounts of water were used which caused the pressures and temperatures in the DFS to fluctuate. The DFS operator struggled to stabilize the incinerator and eventually an upset condition caused the shutdown of all burners in the DFS. While attempting to re-light burners and bring the DFS temperatures back to normal, agent alarms occurred in the Common Stack and the DFS Duct. This was at approximately 11:26 PM. At this time the flow of air through the DFS was decreased (bottled up) to minimize the loss of heat while operators attempted to determine the cause of the alarms. After the alarms cleared, operators again attempted to re-light the burners and another set of alarms occurred. This was at approximately 12:28 AM. At this time operators once again "bottled up" the incinerator. The final "all clear" from the agent alarms, indicating that agent was no longer present, was given at approximately 1:07 AM. The highest agent reading during the entire event was 3.63 Allowable Stack Concentration (ASC).

Air dispersion modeling performed by the Deseret Chemical Depot (DCD) Emergency Operations Center (EOC) showed that agent could only migrate approximately eight to 10 feet from the Common Stack. Independent calculations performed to determine the amount of agent that could have been released showed that the amount ranged between 18 and 36 milligrams. Analysis of perimeter monitoring stations revealed that no agent from the stack release migrated off-post.

A review of all monitoring data relevant to the agent release was performed by the DSHW and discussed with the Centers for Disease Control. The DSHW has concluded that there was no health threat to workers or the off-post community.

The following is a list of actions that must be performed prior to the Executive Secretary agreeing to allow start-up of the facility, to minimize the potential for reoccurrence of this type of event and to eliminate data gaps discovered during the investigation.

- 1) A design review of the DFS feed chutes needs to be performed to determine if there is a way to modify the chutes to prevent the problem of material becoming jammed in the chutes and minimize the lower tipping gate blockage problems.
- 2) The non-normal procedure for chute clean out needs to be reviewed to determine if changes can and should be made to this procedure that would minimize or prevent upset conditions of the DFS.
- 3) Procedures need to be modified so that shift changes and concerns about overtime do not delay entries to perform critical activities such as chute clean out operations.
- 4) Training facilities and time should be made available to provide operators with more training, especially in handling upset conditions.
- 5) Procedures and permit conditions should be modified so that DAAMS tubes monitoring the perimeter of facilities located at DCD are pulled and analyzed immediately upon confirmation of any release of agent into the atmosphere.

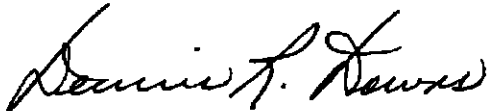
June 16, 2000

Page 3

- 6) Procedures and permit conditions should be modified so that any time analysis of the "A" tube from a perimeter DAAMS station shows a possible detection of agent, regardless of the level, the "B" tube should be analyzed to assist in making determinations as to what the material is and what the source may be.
- 7) If the TOCDF intends to continue monitoring ECRs at the MPL level, the Agent Monitoring Plan needs to be updated to reflect this, and operators need to be aware that this level is many times higher than the IDLH or TWA. The control room displays should be altered to alert operations personnel to this fact and raise the awareness in the control room.
- 8) ECR maintenance procedures should be changed so that personnel performing maintenance check with operators and it is confirmed that the incinerator is operating normally prior to placing any maintenance waste on the upper feed gate.
- 9) Stack temperature instrument TIT-9913 and pressure instrument PIT-9913 should be recorded by PDARS separately from the signals used to calculate standard flow. This would provide continuous recording of stack temperature and pressure.
- 10) Contingency Procedure Agent Detected in the Stack, EG 040.A01, Revision 2 was not followed correctly. Personnel need to follow the contingency plan or the plan should be updated to show what is currently being followed at the facility.

The investigation Report and all supporting information can be found on the Chem Demil Homepage at <http://www.deq.state.ut.us/eqshw/CDS/CurrentEventsCDS.htm>. If you have any questions regarding this letter and the items listed above, please contact Marty Gray or Tom Ball at 538-6170.

Sincerely,



Dennis R. Downs, Executive Secretary
Utah Solid and Hazardous Waste Control Board

DRD/TIB/tb

c: Myron Bateman, R.S., M.P.A., Health Officer/Department Director, Tooele County Health Department
Michael Saupe, TOCDF
Carl Daly, USEPA, Region VIII
Utah Solid and Hazardous Waste Control Board
Dan Bauer, Chairman, Citizens Advisory Commission
Linda Anderson, Centers for Disease Control

**“INVESTIGATION REPORT ON THE AGENT RELEASE FROM THE COMMON
INCINERATOR STACK ON MAY 8 AND 9, 2000 AT THE TOOELE CHEMICAL
AGENT DEMILITARIZATION FACILITY”**

**by the
Utah Department of Environmental Quality**

Table of Contents

Introduction.....1
Investigation1
Conclusions.....5
Concerns7

List Of Attachments

- Attachment 1** TOCDF Stack Release Timeline
- Attachment 2** All data associated with the Automatic Continuous Agent Monitoring System (ACAMS) and Depot Area Agent Monitoring System (DAAMS) monitoring, alarms and analysis
- Attachment 3** Meteorological data for the time of the event
- Attachment 4** Operating data for the Deactivation Furnace System (DFS)
- Attachment 5** DFS Alarm List
- Attachment 6** Perimeter DAAMS analysis data
- Attachment 7** ACAMS reports for the DFS room as well as both Explosive Containment Room (ECR)
- Attachment 8** Copies of the Control Room Operators Log Books
- Attachment 9** Plume Modeling and other reports from Deseret Chemical Depot Emergency Operations Center (DCD EOC)
- Attachment 10** Chronological List of Events compiled by operations personnel
- Attachment 11** Calculations of the amount of agent released
- Attachment 12** Memorandum of Understanding between DCD and Tooele County; Chemical Stockpile Emergency Preparedness Program (CSEPP) Appendices to the State Emergency Operations Plan, Section 2 and Section 5
- Attachment 13** Official Written Notification from TOCDF to the Utah Division of Solid and Hazardous Waste (DSHW) about the release
- Attachment 14** Letter from Centers for Disease Control on preliminary Findings
- Attachment 15** Agent Monitoring Plan Pages
- Attachment 16** TOCDF Contingency Procedure Agent Detected in the Stack, Revision 2
- Attachment 17** Map of DCD showing meteorological stations and perimeter monitoring stations, wind data

INVESTIGATION REPORT
ON THE
AGENT RELEASE FROM THE
COMMON INCINERATOR STACK
ON MAY 8 AND 9, 2000
AT THE
TOOELE CHEMICAL AGENT DEMILITARIZATION FACILITY



UTAH DEPARTMENT OF ENVIROMENTAL QUALITY
DIVISION OF SOLID AND HAZARDOUS WASTE

INTRODUCTION

This report documents the investigation performed by the Utah Division of Solid and Hazardous Waste (DSHW) into the release of nerve agent from the Common Incinerator Stack (Stack) at the Tooele Chemical Agent Demilitarization Facility (TOCDF). Attached to this report and referenced in the report are documents created by DSHW staff and documents and reports collected by DSHW staff during the investigation.

At 11:26 PM on the night of May 8, 2000, the Automatic Continuous Air Monitoring System (ACAMS) which monitors the TOCDF Stack went into alarm indicating the potential presence of agent. This was followed 12 minutes later by an alarm on the ACAMS that monitors the duct between the Deactivation Furnace System (DFS) and the Stack. The alarm condition lasted for approximately 45 minutes and then cleared, indicating that the cause of the alarm was no longer present. At 12:28 AM on May 9, 2000, the ACAMS in the Stack and DFS duct alarmed again. This alarm condition lasted for approximately 30 minutes. Tubes were pulled from the Depot Area Air Monitoring System (DAAMS), another type of monitor used to confirm or deny the validity of the ACAMS alarm. Analysis of these tubes confirmed that a small amount of the chemical warfare agent GB, also known as Sarin, was released from the Stack.

INVESTIGATION

On the morning of May 9, 2000 at about 3:00 AM, Martin Gray, Manager of the Chemical Demilitarization Section of the DSHW received a phone message from Jackie Hansen of EG&G stating that an agent release had occurred at the TOCDF. At about 7:00 AM that same morning, a phone call from Roger Rassmussen of Deseret Chemical Depot (DCD) confirmed the release and reported that the highest concentration detected by the ACAMS was about eight times the Time Weighted Average (TWA). A TWA of one is the amount of agent that a worker can be exposed to for eight hours a day for a lifetime. A review of data from the remote monitoring system used by the DSHW seemed to confirm this message. The agent alarm level for ACAMS PAS 702, which is located in the duct, however; was mis-read from the DSHW remote monitor and was initially reported via e-mail to DSHW management to be 8.7 times the Allowable Stack Concentration (ASC). At 8:00 AM on May 9, 2000, a conference call was set up between the DSHW and TOCDF. During the call, TOCDF confirmed that an agent release had occurred. TOCDF reported that the highest reading in the Stack was 3.63 ASC. TOCDF personnel stated that the tubes from the appropriate DAAMS stations had been analyzed during the early morning hours and confirmed the presence of agent in the DFS duct and the Stack. The DSHW was informed that there had been some problems in operating the DFS and that while employees were cleaning the feed chute to the incinerator, pressures in the system began to fluctuate. Following this conversation, the DSHW began this investigation.

Documents Collected and Reviewed

The following information was requested by DSHW investigators to support this investigation and is included in this report as attachments.

- All data associated with the ACAMS and DAAMS monitoring, alarms and analysis (Attachment 2)
- Meteorological data for the time of the event (Attachment 3)
- Operating data for the DFS (Attachment 4)
- DFS Alarm list (Attachment 5)
- Perimeter DAAMS analysis data (Attachment 6)
- ACAMS reports for the DFS room as well as both Explosive Containment Rooms (ECR) (Attachment 7)
- Copies of Control Room Operators Log Books (Attachment 8)
- Plume Modeling and other reports from Deseret Chemical Depot Emergency Operations Center (DCD EOC) (Attachment 9)
- Chronological List of Events compiled by operations personnel (Attachment 10)
- Calculations of the amount of agent released (Attachment 11)

Memorandum of Understanding between DCD and Tooele County; Chemical Stockpile Emergency Preparedness Program (CSEPP) Appendices to the State Emergency Operations Plan, Section 2 and Section 5 (Attachment 12)
Official Written Notification from TOCDF to DSHW about the Release (Attachment 13)
Letter From Centers for Disease Control on Preliminary Findings (Attachment 14)
Agent Monitoring Plan Pages (Attachment 15)
TOCDF Contingency Procedure Agent Detected in the Stack, Revision 2 (Attachment 16)
Map of DCD showing meteorologic stations and perimeter monitoring stations, Wind data (Attachment 17)

DSHW personnel compiled a timeline of the events that is included as Attachment 1.

Events

At approximately 4:20 PM on the afternoon of May 8, 2000, the TOCDF had a jam in the lower feed gate of the DFS feed chute from Explosives Containment Room (ECR) B. The TOCDF had been processing M56 rockets at normal rates. The last rocket fed prior to the jam was at approximately 3:50 PM. Operators began preparations for an entry to clear the jam. DFS operators began to control the temperature in the feed chute by opening the chute water sprays to about 40%. By 5:30 PM, all waste had cleared the DFS kiln and the Heated Discharge Conveyor (HDC).

At approximately 8:10 PM, the pressure in the DFS kiln was lowered to -1.5 inches water column (in. w.c.) in accordance with the Plan for Non-Normal Operating Conditions, Plan No. DFS-011-01 (see Attachment 10). This reduction in the pressure in the kiln also began to lower the residence time in the DFS Afterburner. Residence time is the amount of time that gases in the Afterburner are exposed to heat. At approximately 8:20 PM, a DFS Afterburner Exhaust Flow High Flow alarm occurred, indicating high air flow through the DFS incinerator and pollution abatement system. This high air flow condition remained virtually constant until approximately 10:00 PM (see Attachment 5).

At approximately 8:30 PM, personnel at TOCDF began to inspect the feed chute for the cause of the jam. Maintenance personnel determined that there was a small amount of debris in the chute, about enough to fill a coffee can. The decision was made to wash down the chute.

At approximately 8:42 PM, the DFS Furnace Operator noticed that the pressure in the kiln was beginning to make minor fluctuations which were affecting the operation of the DFS Induced Draft (ID) fans. These fans pull air through the DFS incinerator and pollution abatement system. By approximately 8:48 PM, it was noticed that the pressure controlling instrument had not been able to stabilize the pressure in the kiln. The fluctuating pressure was causing the ID fan inlet damper to fluctuate between 30% and 90% open. The DFS Furnace Operator took manual control of the pressure controlling instrument and began attempting to stabilize the kiln pressure.

Between 8:37 PM and 9:30 PM, the DFS upper feed gate was opened and closed several times while maintenance personnel were attempting to wash down the chute. The opening and closing of the gate was caused by personnel having to leave the room multiple times in order to obtain parts for the water lance used to wash down the chute.

The wash down of the chutes was complete by approximately 9:30 PM and both feed gates for the chute were closed. The maintenance personnel then changed out the agent strainers in ECR B and placed approximately one pound of agent contaminated waste on the upper feed gate. This waste was never fed to the incinerator and was removed from the feed gate at approximately 4:54 AM on May 9,

2000 (see Attachment 8).

At approximately 9:45 PM, the DFS Furnace Operator noted that the DFS PAS Venturi was 100% open. At this time, the operator continued to have a difficult time stabilizing the DFS. At approximately 9:59 PM, the DFS exhaust flow meter sent a malfunction signal to the control room. This was followed by a Flow Lo Lo alarm from the same meter (24-FIT-430) which automatically shut down both burners on the DFS Afterburner and the burner in the DFS kiln and locked them out. The DFS Afterburner temperature, which had been dropping from 2120 °F since approximately 9:58 PM, dropped below the Part B Permit low limit of 2050°F at the time the burners were shut down. At approximately 10:06 PM, the DFS kiln temperature dropped below the Part B Permit low limit of 950 °F. At approximately this same time, the DFS Afterburner pressure dropped to -6.0 in. w.c., the bottom of the range for this instrument, and remained there until approximately 10:30 PM when it began to fluctuate.

At approximately 10:10 PM, the DFS Furnace Operator determined that there was a problem with the Kurz flow meter (24-FIT-430) that was causing the lock-out of the burners on the DFS. At approximately the same time, the liquid level in the DFS PAS Demister began to rise.

At approximately 10:26 PM, DFS Furnace Operators began attempts to purge the afterburner in order to re-light the burners. They felt that re-lighting the DFS Afterburner would be the safest configuration for preventing a release of agent. I&C Technicians were troubleshooting the Kurz flow meter at this time. The technicians determined that the meter had been saturated with liquid and would need to dry out. The Control Room Supervisor began the process to get a temporary change in place to by-pass the lock-out of the burners to allow the purging and re-lighting of the DFS Afterburner. The process of getting the temporary change approved took approximately 35 minutes. By the time the approval was granted the first Stack agent alarm had occurred.

During the approximately 90-minute period between the lock-out of the DFS burners and the ACAMS alarms, the residence time in the DFS Afterburner dropped to a low of 1.7 seconds. This residence time is approximately half of the normal residence time. The differential pressure across the DFS PAS Venturi jumped to 50 in. w.c., which is the top of the range for this instrument.

At approximately 10:48 PM, the DFS Kiln pressure reached -2.0 in. w.c. This is the bottom of the range on this instrument. The pressure remained at this level until approximately 11:34 PM. At approximately this same time the DFS Afterburner pressure again dropped to -6.0 in. w.c. where it remained until approximately 11:42 PM.

At approximately 11:18 PM, operators shut down the DFS PAS clean liquor pump. This was done to stop the amount of fluid collecting in the DFS PAS Demister that had reached a Hi Hi level at approximately 11:13 PM.

At approximately 11:26 PM, the first Stack ACAMS alarm occurred on ACAMS PAS 701C. The alarm level was 0.67 ASC. At this time, the site was masked. The temperature in the DFS Kiln was approximately 204 °F and the temperature in the DFS Afterburner was approximately 1250 °F. The pressure in the DFS Room at this time was approximately -2.0 in. w.c., the pressure in ECR A was approximately -1.38 in. w.c., and the pressure in ECR B was approximately -2.15 in. w.c.

Stack ACAMS PAS 701A alarmed at approximately 11:27 PM at a level of 1.57 ASC and was followed by ACAMS PAS 702 that alarmed at approximately 11:41 PM at a level of 1.45 ASC. The

temperatures in the DFS Kiln and Afterburner were continuing to drop.

At approximately 11:34 PM, the DFS Kiln pressure began to fluctuate and eventually rose to 0.23 in. w.c. within two minutes. The DFS Afterburner residence time also rose to approximately 2.7 seconds.

At approximately 11:38 PM, monitoring operators started DAAMS tube PAS 701 E and removed the DAAMS tubes PAS 701 D for analysis. At approximately 11:40 PM, both Stack ACAMS reached their highest readings, 701A at 3.41 ASC and 701C at 3.63 ASC. At this time, the DFS Kiln pressure again dropped to -2.0 in. w.c., the bottom of the range for this instrument. The pressure in the DFS Room at this time was approximately -1.21 in. w.c., pressure in ECR A was approximately -1.32 in. w.c., and pressure in ECR B was approximately -2.05 in. w.c.

At approximately 11:44 PM, the DFS Operator was instructed to "bottle up" the furnace. This term means to close dampers and slow down air flow in order to slow the loss of temperature in the DFS. Once this process began, residence time in the DFS Afterburner climbed to a high of 10 seconds, the differential pressure drop across the DFS PAS Venturi dropped to 1.0 in. w.c. and the DFS Kiln pressure went slightly positive in the range of 0.2 in. w.c. to 0.6 in. w.c. The DFS Afterburner temperature began to rise at this time.

At approximately 12:18 AM, the ACAMS alarms had cleared on the Stack and duct and the notice to unmask the site was given.

At approximately 12:23 AM, the DFS Operator was directed to again attempt to light the burners in the DFS Afterburner. This necessitated removing the DFS from the "bottled up" condition. The DFS Kiln pressure once again went to a negative pressure and began to fluctuate. The DFS PAS Venturi differential pressure jumped to 50 in. w.c. and the DFS Afterburner residence time began to drop from 10 seconds. The DFS Kiln temperature had risen to 227 °F and the DFS Afterburner temperature had risen to 1597 °F. A lock-out of the burners occurred again because the DFS PAS clean liquor pump was not running.

At approximately 12:28 AM, the DFS duct ACAMS PAS 702 alarmed. This was quickly followed by the Stack ACAMS PAS 701 B alarm. The site was masked again.

At approximately 12:32 AM, the DFS Operator was again directed to "bottle up" the DFS.

At approximately 1:07 AM, the site was unmasked.

At approximately 6:55 AM, some of the DAAMS tubes from the facility perimeter monitoring stations were pulled and analyzed. The wind at the time of the agent release was blowing towards the north at about five miles per hour. Stations 906, 907 and 908 were in the direction of the wind. The tubes from these stations showed no agent detection, however, station 905 did detect something on the "A" tube (see Attachment 6). The detection level was below the Limit of Quantification for the 12 hour monitoring time and personnel performing the tube analysis followed their Standard Operating Procedures and did not analyze the "B" tube. Data collected by DSHW investigators showed that this station has had similar readings prior to the release (see Attachment 6). Additionally, this station is at 90 degrees to the wind direction. Based on the wind direction and no detection in downwind monitoring stations, it is believed that the material detected at station 905 was not chemical agent from the Stack release.

Notifications

Documentation shows that the TOCDF Control Room notified the DCD EOC at approximately 11:30 PM on May 8, 2000, following the first ACAMS alarm in the Stack (see Attachment 9). According to a Memorandum of Understanding between DCD and Tooele County, DCD EOC personnel will notify Tooele County Emergency Responders at the earliest possible opportunity even if the event is only suspected (see Attachment 12). On this night, DCD EOC personnel chose not to make this call. At approximately 11:42 PM, the TOCDF Control Room updated the DCD EOC with the highest readings in the Stack as well as informing them that the DFS Duct ACAMS had also alarmed. At approximately 12:25 AM on May 9, 2000, the TOCDF Control Room informed DCD EOC that all the ACAMS had cleared and that the DAAMS tube analysis was pending.

At approximately 12:32 AM on May 9, 2000, the DCD EOC was informed that the Stack ACAMS were back in alarm.

At approximately 1:17 AM, the DCD EOC received notification from TOCDF that the DAAMS tube analysis from the first set of alarms was completed and that the presence of agent was confirmed.

At approximately 3:34 AM, the DCD EOC contacted the Tooele County dispatcher and notified them that there had been a confirmed ACAMS alarm in the TOCDF Stack. This phone call was followed by a fax of the Chemical Notification Form. This dispatcher was informed that the event had been classified as a Limited Area Event. The normal procedure for the Tooele County dispatcher would be to page personnel from the county Emergency Management office. The Tooele County dispatcher made a decision not to page Tooele County Emergency Management personnel.

At approximately 3:00 AM, notification was made to the office of Martin Gray at the Utah Department of Environmental Quality, Division of Solid and Hazardous Waste.

On the morning of May 9, 2000, Tooele County Emergency Management personnel discovered the Chemical Notification Form and contacted the State of Utah, Division of Comprehensive Emergency Management and informed them of the event.

Personnel at the Chemical Agent Munitions Disposal System (CAMDS) were not notified of the event. DCD personnel stated that during a Limited Area Event they likely would only contact personnel who were downwind of the event. During this event, CAMDS was cross wind and modeling showed that no agent could reach CAMDS. At 3:55 AM on May 9, 2000, TOCDF contacted CAMDS and requested that they collect the DAAMS tubes from the perimeter monitoring stations that were downwind during the release.

CONCLUSIONS

The events that led up to the release of agent from the TOCDF Stack began with the DFS Feed Chute jam and the activities centered around removing this jam. As noted in control room logs, see Attachment 8, it appears that a larger than normal amount of water was used to remove jammed material from the chute. Additionally, due to delays in making the entry to clean out the jam, the cooling water sprays in the DFS feed chute were 40% open for some time prior to the chute cleaning operation. As this water enters the DFS Kiln it flashes off as steam which creates pressure fluctuations within the kiln. The DFS Operator at the time was unable to bring the DFS back into a steady state condition.

Because no waste had been fed to the DFS since much earlier in the evening the Control Room Supervisor saw this as an opportunity for this operator to gain some additional experience and decided to allow the operator to continue attempting to control the DFS. The Control Room Supervisor was unaware of the ECR maintenance waste that had been placed on the upper feed gate.

As time progressed, the DFS Operator was unable to stabilize the DFS. The high flow of air through the system lowered the residence time well below the normal residence time for destruction of agent. The high flow also pulled liquid from the DFS PAS Scrubber sump through the duct into the Demister. This transfer of liquid is not normal and is what saturated the Kurz flow meter causing the shutdown of the DFS burners and burner lock-out.

As shown by operations data (see Attachments 4 and 10), the pressure in the DFS went more negative than normal, at least -6.0 in. w.c. This pressure is four times more negative than any of the areas surrounding the DFS kiln causing the DFS to pull air from the surrounding rooms, ECR A, ECR B, and the DFS Room.

Monitoring data shows that the DFS room had no agent readings and ECR A had agent readings of approximately one TWA at the time of the event (see Attachments 7 and 10). In contrast, ECR B, where rocket operations take place, had agent readings above 200,000 TWA (value converted from 0.2 MPL). It should be noted that the agent readings in ECR B are typically higher when compared to areas of the facility where munitions are not punched and drained of agent. For ECR B, these levels were within normal operating ranges. The readings in ECR B ranged from 0.19 to 0.32 times the Maximum Permissible Limit (MPL). At 1.0 times the MPL, entrants wearing Demilitarization Protective Ensemble (DPE) must exit the area because the suit has not been tested at higher levels. These values may seem low, unless converted to a more commonly used value such as Immediately Dangerous to Life or Health (IDLH).

Although no agent-contaminated waste was in the incinerator, a small amount of agent contaminated waste was on the upper feed gate in ECR B. This small amount of waste contributed to the agent readings in ECR B. Air was being pulled from ECR B through the DFS system because the DFS was much more negative than the ECRs. The temperatures in the kiln and afterburner were reduced below the limits set in the TOCDF Part B Permit for the destruction of chemical agent. Additionally, the residence time in the afterburner was below that needed for the destruction of chemical agent. These facts, coupled with the agent levels in ECR B, led to the release of chemical agent from the Stack at TOCDF.

When the ACAMS alarmed the first time at approximately 11:26 PM, the Stack ACAMS alarmed before the ACAMS monitoring the duct. This initially caused some confusion among operators because normally the duct instrument should alarm first since it is closer to the incinerator. Monitoring personnel stated that when an incinerator loses its flame, more condensate is present in the Stack and ducts than normal. Monitoring personnel theorize that this large amount of moisture enters the column in the ACAMS and attenuates the readings of the instrument. This could account for the delay in the alarm as well as the alarm level peaking at a lesser amount than the Stack instruments. The DAAMS tube for the DFS duct confirmed at a level of 4.01 times the ASC.

A review of *Contingency Procedure Agent Detected in the Stack, EG 040.A01, Revision 2* and discussions with TOCDF personnel revealed that the procedure for agent detected in the stack was not followed correctly. Operators appear to have followed the procedures they follow when "agent is not

probable," even though the monitoring response team indicated that it looked like this was not a false alarm.

Operators in the DCD EOC stated that dispersion modeling was done at the time of the event. Modeling data collected by DSHW investigators was for models run in the early morning hours of May 9, 2000. The models ran by the DCD EOC for this event showed that any release of agent would travel at most eight to 10 feet from the Stack (see Attachment 9).

Calculations of the amount of agent released from the Stack during the event were performed by EG&G personnel (see Attachment 11). Additionally, CDC performed independent calculations and modeled the event to determine if there was a health threat to any workers or residents in the surrounding communities (see Attachment 14). It was determined that there was no health threat to any worker or the community.

Analysis of the perimeter DAAMS tubes showed that no agent was detected in any perimeter DAAMS station downwind of the Stack. Although the perimeter DAAMS tubes were not pulled immediately by operators, a review of the data by DSHW showed that the analysis was performed in accordance with operating procedures. This data, as well as modeling data, show that no agent from the Stack release migrated off-post.

DSHW investigators met with EG&G personnel at the facility clinic. Discussions with them as well as a review of clinic records showed that no one sought medical treatment for possible agent exposure prior to or after the agent release.

Notification to the Utah Department of Environmental Quality, Division of Solid and Hazardous Waste was made in accordance with the TOCDF Part B Permit.

According to Section 2.0 of the State of Utah CSEPP Appendices to the State Emergency Operations Plan (see Attachment 12), during a Limited Area Emergency, the DCD EOC provides notification to Tooele County and Utah County. At this time, Tooele County may go to a level of increased readiness but no immediate notification to the State of Utah, Division of Comprehensive Emergency Management is required. Decisions were made by two individuals that delayed the notification of local emergency management personnel.

CONCERNS

The following are items of concern that the Utah Department of Environmental Quality, Division of Solid and Hazardous Waste will be addressing with the facility.

Jamming of the DFS feed chutes and the lower feed gate has been a recurring problem at TOCDF. The procedure for clearing jams in the chutes regularly causes difficulties for incinerator operators.

The entry to clear the chute jam was delayed because of approaching shift change and the fact that preparations for the entry could not be completed and the entry made before the shift change happened.

Operators need more opportunities for training besides real time on-the-job experience as well as better supervision in the control room.

The DAAMS tubes monitoring the perimeter of facilities located at DCD were not pulled and analyzed immediately upon confirmation by the DAAMS tubes in the DFS duct and Stack of the release. Additionally, for Station 905 that did show something on the "A" tube, the "B" tube was not analyzed.

When an ECR is monitored at the MPL level, operators may be getting a false sense of security. When the reading is below one MPL, the readout on the screen in the control room is green instead of red. This may cause some operators to underestimate the magnitude of the agent concentration.

Personnel who cleared the chute jam went on to perform ECR maintenance and placed waste on the DFS feed gate even though the incinerator was not operating normally and the waste could not be fed.

Stack temperature instrument TIT-9913 and pressure instrument PIT-9913 do not report to PDARS as stand alone instruments but instead report to FIT-9913 which then calculates the standard exhaust flow in the stack.

TOCDF personnel failed to correctly follow the contingency procedure in the permit for "Agent Detected in the Stack."

1

00-0922

May 8 - 9, 2000
TOCDF Stack Release
Timeline

1548 hours Last rocket fed to the DFS
1621 hours DFS Stop Feed – lower feed gate is jammed
1640 hours DFS Kiln goes into oscillation mode
1730 hours DFS HDC clear of material
1951 hours DFS Kiln pressure (16-PIT-018) begins to fluctuate
DFS Afterburner exhaust gas differential pressure (16-PDIT-813) begins to rise from 0.25 in. w.c.
DFS Afterburner exhaust residence time (16-KI-813) begins to drop from 3.7 seconds
2010 hours DFS kiln pressure lowered to -1.5 in. w.c.
2020 hours DFS Afterburner exhaust flow (16-FI-813) high flow alarm
2030 hours DPE entrants begin to inspect feed chute
2036 hours DPE entrants notify the CON that there appeared to be some debris clinging to the sides of the feed chute
2042 hours DFS Operator notices that the kiln pressure is making minor excursions affecting the operation of the ID fans
2127 hours DPE entrants washing down the feed chute
2131 hours DPE entrants done with feed chute clean out and wash down, both gates closed
2133 hours DPE entrants changing out strainers on AQS
2137 hours DPE entrants place 1.0 lbs. of agent waste on the DFS feed gate
2145 hours DFS Operator observes that the DFS PAS Venturi is opened to 100%
2158 hours DFS Kiln exhaust temperature (16-TIT-182) begins to drop from 1440 °F
DFS Afterburner exhaust temperature (16-TIT-092) begins to drop from 2120 °F
2159 hours DFS exhaust gas flow (PAS-SCRB-102, 24-XS-430) malfunctions
2200 hours DFS PAS Quench tower exhaust temperature (24-TIT-374) begins to drop from 169 °F
2201 hours DFS Afterburner exhaust temperature (16-TIT-092) reaches 2107 °F
2202 hours DFS PAS O₂ (24-AIT-206, 16-AIT-175) jumps to 20.9%
DFS PAS CO (16-AIT-059H, 24-AIT-207H) begins to rise
DFS exhaust gas flow (PAS-SCRB-102, 24-FSLL-430) FLOW LO LO alarm
DFS Afterburner and Kiln burners locked out
DFS Afterburner exhaust temperature (16-TIT-092) drops below the RCRA low temperature
2206 hours DFS Kiln exhaust gas temperature (16-TIT-182) drops below the RCRA low temperature
2209 hours DFS Operator concludes that there may be a problem with the KURZ flow indicator (FIT-430)
2210 hours DFS PAS Demister liquid level begins to rise
2243 hours ACAM ECR 312 (ECR B) reading 0.30 MPL
ACAM DFS 352 (DFS Room) reading 0.05 TWA
ACAM DFS 352 (DFS Room) reading 0.03 TWA
2247 hours ACAM ECR311 (ECR A) reading .99 TWA
2248 hours DFS Kiln pressure (16-PIT-018) reaches -2.0 in. w.c. (bottom of the instrument range)
DFS Room pressure (76-PDIC-481) is at -0.68 in. w.c.
ECR A pressure (76-PDIC-423) is at -1.24 in. w.c.
ECR B pressure (76-PDIC-424) is at -1.93 in. w.c.

0029 hours ACAM PAS 701 C alarms at 0.56 ASC
 Site masked
 DFS Kiln exhaust gas temperature (16-TIT-182) is at 227 °F
 DFS Afterburner exhaust temperature (16-TIT-092) reaches 1344 °F
 DFS Afterburner exhaust residence time (16-KI-813) reaches approximately 3.0 seconds

0031 hours DFS Afterburner exhaust residence time (16-KI-813) reaches a high of 10.0 seconds
 ACAM PAS 701 B peaks at 0.74 ASC
 PAS 701 D DAAMS tube from first alarm analyzed and confirmed at 2.87 ASC

0032 hours DFS Kiln pressure (16-PIT-018) goes positive
 TOCDF Con notifies DCD EOC of new alarms
 DFS Operator directed to bottle up the furnace
 ACAM PAS 701 C peaks at 0.81 ASC
 PAS 701 DAAMS tube pulled for second alarm

0038 hours DFS PAS Venturi differential pressure (24-PDIC-008) drops to 1.0 in. w.c.
 ACAM PAS 701 C clears

0039 hours ACAM PAS 701 B clears

0040 hours DAAMS at PAS 702 pulled for second alarm

0056 hours ACAM PAS 702 clears

0058 hours Confirmation of PAS 701 D for first alarm reported to the control room

0107 hours Site unmasked

0117 hours TOCDF Con notifies DCD EOC of DAAMS confirmation

0127 hours PAS 702 DAAMS A-tube analyzed and confirmed at 4.00 ASC

0148 hours PAS 701 E DAAMS A-tube from the first alarm analyzed and confirmed at 0.87 ASC

0149 hours DAAMS tube from PAS 701 second alarm analyzed and confirmed at 0.69 ASC

0223 hours DAAMS tube from PAS 702 second alarm analyzed and confirmed at 0.57 ASC

0230 hours Confirmation of PAS 701 DAAMS tube from the second alarm reported to the control room

0302 hours Confirmation of PAS 702 DAAMS tube from the second alarm reported to the control room

0315 hours PAS 702 DAAMS B-tube from the first alarm analyzed and confirmed at 4.01 ASC

0334 hours DCD EOC notifies Tooele County

0344 hours PAS 701 E DAAMS B-tube from the first alarm analyzed and confirmed at 0.87 ASC

0355 hours CAMDS was requested to collect the perimeter DAAMS tubes

0359 hours Confirmation of PAS 701 E, A-tube, from the first alarm reported to the control room
 Confirmation of PAS 702, A-tube, from the first alarm reported to the control room
 Confirmation of PAS 702, B-tube, from the first alarm reported to the control room

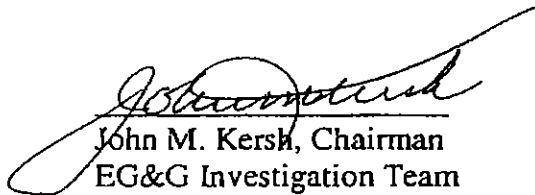
0424 hours Confirmation of PAS 701 E, B-tube, from the first alarm reported to the control room

0454 hours DPE entrants decon 1 lb of agent waste after removing it from the DFS feed gate



**EG&G INVESTIGATION
INTO THE
CHEMICAL AGENT DISCHARGE
AT THE
TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

May 15-26, 2000


John M. Kersh, Chairman
EG&G Investigation Team

Date: June 9, 2000



TABLE OF CONTENTS

Executive Summary

Introduction

Facts and Analysis

Conclusions

Recommendations

Appendix A - Notification Timeline for May 8th and 9th, 2000

Appendix B - Analytic Technique Synopsis

Appendix C - Operations Procedures

Appendix D - Operations Analyses



Executive Summary

On May 8, 2000, 18 milligrams of chemical munitions GB agent was released from the Tooele Chemical Agent Disposal Facility (TOCDF) common stack. The U. S. Army classified this as a limited area problem and the U. S. Department of Health & Human services (DHHS), Center for Disease Control and Prevention (CDC) conducted a worst case evaluation that determined that the maximum possible exposure to GB agent at ground level was less than one percent of the DHHS acceptable safe level for such an exposure to the general public. EG&G dispatched a four person corporate investigation team to evaluate the circumstances that led to the release and provide recommendations for corrective action to improve performance.

The Deactivation Furnace System (DFS) uses a kiln to process metallic items that are contaminated with chemical agents developing a solid waste stream of sanitized metal. Two feed chutes are installed, one for projectiles and one for rockets. An automated feed system chops rockets into segments and feeds those segments into the kiln through an upper slide gate and a lower tipping gate in the chute. The kiln is normally maintained at a temperature range of 900° F to 1,500° F using one fuel gas burner fed air from a single combustion air blower (CAB). Metal parts are moved to a high temperature conveyor by an auger system in the kiln and subsequently loaded into a transport bin after thermal processing. Residual chemical agent is burned in the kiln and in the Afterburner. Flue gases exit the kiln and are drawn to the Afterburner through a cyclonic separator. The Afterburner normally maintains a temperature of 2,100° F using two gas burners fed air from two CABs.

The Pollution Abatement System (PAS) cools the flue gas and removes acidic particulate matter. Flue gases are drawn from the Afterburner through a quench tower where the gas temperature is decreased to approximately 250° F, through a venturi separator to remove particulate, through a scrubber where the majority of particulates are removed, then through a demister where entrained moisture is removed. A Kurz flow meter is installed between the scrubber and the demister to measure flue gas flow rate, provide low flow alarms and trigger protective actions. Flue gases are drawn through a butterfly flow control valve by two high volume Induced Draft (ID) fans in series that discharge into the common stack. Three other furnace systems also discharge into the stack. Automatic Continuous Air Monitoring Systems (ACAMS) sensors are located in each flue gas line leading to the stack. The stack is also equipped with a double redundant ACAMS (station 701). The DFS sensor is 702. On the evening of the occurrence, both 701 and 702 sensors indicated the release of agent on two separate occasions. These releases were confirmed by Depot Area Air Monitoring System (DAAMS) tube samples.

There were two related root causes of this event. First, the performance of a non-normal procedure to establish the plant conditions to support an Explosive Containment Room (ECR) B entry. The purpose of the entry was to clean out the DFS feed chute and clear a lower tipping gate malfunction. The resulting plant condition established a vacuum in the DFS furnace and PAS systems relative to the agent contaminated ECR B and allowed a flow of chemical agent into the DFS and PAS. Second, the DFS Operator's actions to recover from the upset conditions were not effective and actually caused an increased vacuum and higher flow in the DFS/PAS systems. The DFS operator was newly certified and inexperienced and did not demonstrate the



required level of operating skills and understanding of plant dynamics and component control interrelationships in manual and automatic control to manage the difficult recovery.

There were two direct causes for the agent release. First, the loss of Afterburner temperature to a level of approximately 1,160° F and a less than adequate agent residence time (under 2 seconds) caused by excessive flow in the DFS/PAS system. These conditions prevented the system from destroying chemical agent by incineration. Second, although the clean liquor system is not an engineering control to destroy agent but rather is designed to remove acid gases from flue gases, the operator's mistaken termination of clean liquor flow in response to a low sump condition removed the damping effect of clean liquor circulation on flue gas flow in the scrubber and coincidental ability of the clean liquor to absorb low levels of chemical agent.

Significant contributing causes that led to the direct causes included:

- The necessity for more detailed, comprehensive and thorough guidelines in the procedures to establish the conditions for the DPE entry, recovery from the entry and recovery procedures from bottle up: (NOTE: "Bottling Up" means turning off the Induced Draft (ID) fans, shutting the ID damper and turning off the Combustion Air Burners).
- Malfunction of the Kurz Meter caused by high moisture entrainment in the flue gases in turn caused by high system flow resulted in a low flow signal to the Burner Management System that shut down the burners in the kiln and Afterburner;
- The operators manual initiation of make up feed to the clean liquor system using process water to the mist eliminator spray heads caused additional moisture entrainment in flue gases;
- The lack of awareness of levels of contaminated agent in the ECR B, the balance of differential pressure that kept agent vapors contained there, and the potential for agent vapors to enter the DFS/PAS system during the establishment of conditions for ECR entry and subsequent recovery;
- A plant history of frequent false positive ACAMS alarms;
- The operators and their supervision did not apply conservatism and believe their indications which showed the plant in a "worst" condition leading to a delayed prompt action to bottle up the DFS/PAS system;
- A training program which did not ensure operators and their supervision retained fundamental system knowledge, understanding of plant dynamics and operating proficiency; and
- Miscommunications that prevented the Plant Shift Manager and Control Room Supervisor and senior line management from fully understanding the plant upset condition.



The recommended corrective actions emphasize:

- Increased management involvement in training and operations since the procedures, discussed in Section 2.4, and the practices of shift operators and supervision in implementing these procedures have set up an autonomy of shift management and senior line management is not informed early enough when their help is needed;
- Improvement in the procedures particularly those relating to the entry into the ECR and operating the DFS furnace and PAS;
- An approach to training that uses an on site simulator to develop operator proficiency; makes more frequent and effective use of lessons learned at the site and throughout the chemical weapons demilitarization complex; places more emphasis in on-shift training; and, ensures required knowledge, understanding of dynamics and proficiency are examined, evaluated and upgraded more frequently than required certification intervals;
- A valve operated from the DFS operator console to rapidly isolate the kiln from the Afterburner and PAS as an engineered barrier to mitigate a potential agent release;
- A flow measurement and logic system insensitive to moisture that uses multiple instruments and sensing locations and provides redundant logic input to the burner management system;
- An engineering fix which insures that residence time for the flue gases is not reduced below two seconds without the kiln isolation valve (mentioned above) closed;
- A single Control Room computer control screen schematic showing immediate status of major and critical components and parameters for the entire DFS/PAS system rather than using twelve separate screens;
- And, finally, involvement by EG&G Corporate Headquarters to ensure effective corrective action and continuous operational improvement.

INTRODUCTION

1.0 Background

On May 8, 2000, approximately 18 milligrams of chemical munitions agent was released from the Tooele Chemical Agent Disposal Facility (TOCDF) common stack. The event occurred on night shift (A Team shift) on May 8th. The day shift just before the occurrence (C Team shift) on May 8th had been processing M 56 warheads. The particular lot of M 56 warhead rockets being processed were known to contain "gelled" agent that was difficult to drain. Only the DFS (M 56 rocket destruction line) and Liquid Incinerator (LIC) No. 1 were operating. The Metal Parts Furnace (MPF) and LIC No. 2 were undergoing major maintenance and were off line. The C shift terminated M 56 warhead processing because of a malfunction of the lower "tipper" gate



of the DFS feed chute and made preparations to turn the DFS feed chute lower gate malfunction corrective action and related ECR B DPE entry over to the A shift.

1.1 Facility Description

Mission

The mission of the Tooele Chemical Agent Disposal Facility (TOCDF) is to destroy the portion of the nations Chemical Munitions Stockpile that is stored at Deseret Chemical Depot (DCD), approximately 41% of the total stockpile. The stockpile at DCD consists of ton containers, M-55 Rockets, M-56 warheads, artillery rounds, bombs, landmines, mortar rounds and spray tanks.

The TOCDF was built to accomplish the general demilitarization mission. It is designed to receive, unpack, remove and destroy explosive components, remove and destroy chemical agent, and decontaminate metal parts. The facility and equipment are designed to maintain engineering control of all explosives, agent vapors and other harmful components with a minimum risk to workers, the public and the environment.

The mission is accomplished using a variety of demilitarization equipment and four incinerators. These furnaces are the metal parts furnace (MPF), deactivation furnace system (DFS), and liquid incinerators (LIC No. 1, and LIC No. 2). Each of the four furnace systems has a wet Pollution Abatement System (PAS) to cool and chemically treat exhaust gases before they are released to the atmosphere.

General Description of the Deactivation Furnace System (DFS)

The DFS consists of a rotary kiln, a heated discharge conveyor (HDC), a kiln combustion air blower, a blast attenuation duct, a cyclone separator, an Afterburner, an Afterburner combustion air blower, and associated instrumentation and piping. The feed to the DFS comes from the two explosive containment rooms (ECRs), in which various munitions-processing activities take place. Rocket pieces, mines, bursters, boosters, and fuse are fed by gravity from each ECR through a feed chute. Each feed chute is provided with a built-in system of blast gates to meter the munitions pieces to the kiln. ECR-B and the ECR-B DFS feed chute were in use during processing of the M-56 warheads.

The DFS burns drained rockets, landmines, and energetics removed from projectiles in the kiln with the products of combustion flowing through a blast attenuator and cyclone separator to the Afterburner where the gases are thermally treated. Afterburner exhaust gases then flow to the DFS PAS where they are treated for removal of acid gases and particulate materials. The metal parts and other non-combustibles that are discharged from the kiln are further thermally treated in the heated discharge conveyor (HDC) then transferred to the residue handling area (RHA).

General Description of the Wet Pollution Abatement System (PAS)

Each wet PAS consists of a quench tower, venturi scrubber, packed bed scrubber tower, demister, exhaust blower, emergency exhaust blower, various recirculation and transfer pumps,



and associated piping and instrumentation. All four of the wet PASs discharge their exhaust gases into one common stack.

High-temperature exhaust gases from the furnace enter the PAS and travel upward through the quench tower in which caustic brine and water sprays cool the gases to near the saturation temperature (approximately 175° F). The gases then travel down through a venturi scrubber that mixes them at high velocity with more caustic brine, removing most of the acid gases and particulates. The gases flow from the venturi upward to a packed bed scrubber, where they again react with a caustic brine solution (clean liquor) to remove the remaining acid gases. The final stage is a demister, which removes H₃PO₄ mist, metal oxides, and other solid particulates. From the demister vessel, the gases flow through a damper to the exhaust blower, which discharges the gases to the stack. The exhaust blower is also the motive force that pulls the exhaust gases through the furnace and PAS.

Process water is supplied to the quench and scrubber towers to make up for water that is lost by evaporation. Caustic solution is supplied to the venturi scrubber and scrubber tower packed bed to react with acid gases in the exhaust stream. The salts produced are removed from the system by transferring brine to one of four brine storage tanks. After sampling and analysis the brine is then shipped to a licensed & permitted permanent disposal area.

1.2 Team, Scope, Conduct, and Methodology

The EG&G Corporate Investigation Team members were:

- Jack Kersh, Chairman
- Howard Dickson, Member
- Dan Williams, Member
- Stan Duncan, Member

The team was charged with determining the direct, contributing, and root causes for the agent stack emission and providing recommendations for corrective actions. Only one member of the team was familiar with the plant so the TOCDF General Manager generously arranged for a strong support team of TOCDF experts. Their assistance was essential and invaluable in conducting the investigation. The support team personnel from the TOCDF staff were:

- Thomas Kurkijy
- Kelvin Brito
- Scott Winters
- Tom Clark
- Thane Eyre
- Kent Wilson
- Sheila Vance

The support team members were knowledgeable, professional, responsive, and positive.

All TOCDF personnel contacted were responsive and professional. Each person contacted provided the information requested, displayed a positive helpful attitude, and was interested in learning how to prevent similar events.



The team spent the first two days in briefings and plant tours for familiarization. Individual team members assisted by the TOCDF support team conducted programmatic reviews and interviewed several members of the A-shift crew. Also, the team assembled all data relevant to the incident for review. The team used several analytic techniques including Kepner-Tregoe and Management Oversight and Risk Tree (MORT) in the analysis. A short description of each is provided in Appendix B.

2.0 FACTS AND ANALYSIS

2.1 Narrative Facts and Chronology May 8 and 9, 2000

May 8, 2000

- 16:18 Shift C was on Station in the Plant and Control Room and was processing M56 Rocket Warheads while the Liquid Incineration Furnace (LIC 1) was on stand-by at normal operating temperature and the Metal Parts Furnace (MPF) and (LIC 2) were in an extended outage and therefore completely shutdown. A lower gate malfunction alarm caused an automatic stop feed of M56 Rocket Warhead material because the lower chute tipper gate (102) associated with Explosive Containment Room (ECR) B and DFS would not make the closed limit switch.
- 17:00 Following Trouble Shooting and initiating a water flush of the chute and cycling of gate 102 from the Control Room, Plant Shift Manager (PSM) and Control Room Supervisor (CRS) decided to delay conduct of a Demilitarization Protective-Ensemble (DPE) entry into ECR B until the next shift in order to clear the malfunction and provide adequate time for preparation and facilitate entry.
- 17:30 With overall Plant Status as depicted above, A shift took turnover from C-shift with DFS Gate 102 in a malfunction state and commenced preparations to clean out the chute and correct the malfunction. The PSM for this shift is one of the two newest certified PSMs and the one with the least former experience on this plant. The Control Room Supervisor on this shift was normally the alternate Control Room Supervisor. The DFS operator had only been certified for 4 months and had not operated the furnace under upset or major transient conditions.
- 19:15 (about) Completed Pre-Entry Brief. The control room operator (CRO) controlling the DPE entry, the Shift Maintenance Supervisor, the Shift Operations Supervisor and entry personnel attended the pre-brief. The agenda for the DPE entry included correcting the lower gate malfunction, cleaning out of AQS Strainer and conducting PMs. Following successful completion of the entry tasks, it was intended to restart processing of M56 Rocket Warheads.
- 20:01 DFS Operator starts to make furnace pressure adjustments per the guidance contained in memorandum number OMM-00-05, to Non-Normal Operating Conditions Plan NO: DFS-011-01. This Plan was written for ECR A not ECR B and does not contain all the necessary steps required to complete the task, and the

gate references are incorrect. The PSM gave the procedure to the Control Room Supervisor and directed him to get concurrence from the System Engineer, which the CRS obtained.

- 20:01-15 The DFS Operator commenced furnace and room pressure reconfiguration activities in preparation for the DPE Entry. The actions were carried out through numerous controller set point changes for the venturi and ID damper while the control loops were in an automatic mode of operation.
- 20:24 The DPE Entry Team entered the ECR B to commence the chute inspection and clean out process. A slight build up of residues were noted in the feed chute and upper and lower gates and a small amount of debris about the size of a coffee can was noted in the chute. The residue and debris was washed down the feed chute and subsequently into the kiln resulting in minor furnace pressure instability and cooling.
- 21:29 The clean out was successful allowing the lower tipping gate (102) to fully close and clear the alarm; whereupon, the entry team commenced AQS Strainer cleanout using SOP-112: ECR Housekeeping Procedure.
- 21:30 DFS Gate 104 closed for final time by DFS operator.
- 21:37 The entry team completed the strainer cleanout and placed the strainer waste in a container that they left on the upper slide gate (MMS Gate 104) and made preparations for departure of ECR B.
- 21:39 The entry team departed ECR B and were processed back to the airlocks. The DFS operator restored normal configuration to the ECR B room pressure and Heat Vent & Air Conditioning (HVAC) system.
- 21:40-45 The DFS operator attempted to restore normal flow and vacuum in the DFS kiln through leaving Venturi Scrubber Plunger and ID Fan Damper in Automatic and inserting incremental set point changes in both related controllers. During the recovery, the initial position of the venturi plunger upon completion of the DP entry would be extremely slow to react to any action of the automatic or manual controls applied in closing the ID fan damper because of the slow control loop tuning. This automatic control condition set up the flow and vacuum conditions resulting in -2" WC in the kiln and -6" in the Afterburner at time 21:55. Although the Control Room Supervisor knew he had an inexperienced DFS operator, he was very busy with other requirements such as Lock Out /Tag Outs and work permits for preventive maintenance to spend much time in oversight. The assistance of another certified DFS operator also was not successful. The Non Normal Procedure, its attached memorandum and the DFS Operators Standing Operating Procedure (SOP-004) did not address DFS recovery from the non-normal condition created by the ECRB entry.



- 21:46-22:02 The DFS operator took manual control of the Venturi Scrubber Plunger and attempted to restore normal pressures and flows through several control variable (CV) changes, and then placed the control loop back to the automatic mode. In this situation, the differential pressure set point drove the Venturi Scrubber Plunger open again.
- 21:47 Feed end of the kiln temperature has risen to the normal 960°F temperature and remains above that level for about 17 minutes before again decreasing following burner loss at 22:02.
- 21:48 DFS operator took manual control of the DFS furnace pressure controller (allowing manual control of the ID fan damper position) in further and continued attempts to restore normal pressures and flows in the DFS furnace and related PAS systems.
- 21:59 During the restoration process, the clean liquor sump low level alarm came on. In response to this alarm, the operator opened the Scrubber Tower Mist Eliminator Pad water spray in an effort to supplement the normal make up water system. This action contributed to the moisture saturation of the Kurz flow meter.
- 22:02 While the furnace and related Pollution Abatement System (PAS) systems were still under extremely high vacuum and high flows, a vital (Kurz) flow metering instrument--near the scrubber/mist eliminator outlet-- failed due to high moisture carry over causing a shutdown of the "kiln" burner and two "Afterburner" burners-- a condition referred to as lock-out. The failure of this vital instrument caused the loss of burner management permissives, thereby requiring a 14-minute purge necessary for burner relight. During this process, the Kurz flow malfunctioned intermittently prohibiting the completion of the purge and causing additional cooling to the furnace. The DFS operator continued attempting to restore normal flows and pressures while assisting trouble-shooting efforts including implementing the work order process and also working with maintenance personnel on this vital flow measurement instrument. See Appendix B, Figure 1 for flow history and analysis.
- 22:02:58 Upon burner lock-out, as a Burner Management System Function, CAB AFB1 and AFB2 go to "high fire" (i.e. 5,000 + CFM) in an auto purge. This purge results in reducing negative pressure in kiln and Afterburner to almost zero "WC".
- 22:05 CAB AFB1 and AFB2 go to <1,400 CFM by operator intervention and AFB pressure returns to -6 " WC. Kiln remains in the range of -1.5 to -2 " WC (-3.0 to -3.5 on PIT 168). Pressures remain as such until 22:30. [Note: PIT 168 Pressures will be shown in parentheses in the remainder of the Narrative Chronology. PIT 168 senses in the kiln discharge duct. The kiln and Afterburner pressure indicators were pegged at -2" and -6" WC.]
- 22:07 The DFS operator shut off the Scrubber Tower Mist Eliminator Pad water spray.

- 22:30 CAB AFB1 and AFB2 go to 5,000+ CFM. AFB and kiln pressures again approach zero values. Purge continues until 22:49. Kiln temperature that was already around 400° F degrees is reduced to 312° F (TIT-020) and 368° F (TIT-182) by 22:49. Afterburner temperatures went from 1,534° F (TIT -092) and 1,567° F (TIT-197) to 1,273° F and 1,359° F respectively at 22:49.
- 22:30-23:26 During this period, the Control Room Supervisor sought and received approval from the PSM and the System Engineer to jumper the Kurz flow meter to allow starting the 14 minute purge timer to support burner relight. This action removes the low flow alarm function and required by the Burner Management System NFPA Code to prevent accumulation of combustible gases; however, TIT-092 shows that the Afterburner temperature is greater than 1,400° F for auto ignition. The CRS knew he had an alternative of remaining bottled up and allowing the Kurz flow meter to dry out and return to normal operation, which in fact occurred later on during a later bottle up (23:20).
- 22:34 The Afterburner's first reading below 1,400° F caused an interlock alarm preventing relight of the burner. At this point, The CRS could have directed the DFS operator to discontinue the purge to reduce cooling and bottled up by turning off the ID fans and combustion air blowers to allow the Afterburner temperature to rise because of heat capacity in the refractory brick. See Appendix D, Figure 2 for the after burner temperature history and analysis.
- 22:49 CAB flow is reduced and negative pressures go to -2 " WC (-3.5") in kiln and -6 " WC in Afterburner. Duct pressure varies between (-3.5" to -3.8 WC) until 23:36, when clean liquor flow is lost and Agent is drawn into the DFS from the ECR B. The DFS Operator quickly made adjustments (over 10 minutes) to the ID inlet damper (PV-18) with the DFS pressure controller (16-PIC-18) apparently trying to make the DFS pressure less negative.
- 23:19 The DFS operator mistakenly secured the clean liquor recirculation pump. As clean liquor flow is lost, flue flow increases and duct pressure drops to (- 4.0" WC). Agent is drawn into the DFS from the ECR B.
- 23:26 First ACAMS alarm in the stack (701C) at 0.67 ASC occurred. Afterburner temperatures were at 1, 248° F and 1, 281° F. Control Room Utility Operator initiated Contingency Procedure action and orders all site personnel to don masks, notified the EOC and started site notifications. See Appendix D, figure 2 for the ACAMS history analysis and figure 3 for the kiln pressure history analysis.
- 23:27 Site Notifications completed and included PSM, Shift Safety Manager, CRS, Shift Environmental Representative, Monitoring Lead, and The QASAS.
- 23:28 Second ACAMS alarm in the stack (701A) at 1.57ASC.
- 23:31 Monitoring team proceeds to stack to evaluate ACAMS and pull DAAMS tubes for laboratory analysis.



- 23:33 The Notifications to Site Personnel and EOC were completed. Informal notifications to management were not conducted.
- 23:35:50 Both ID fans shutdown due to high amps. The Emergency Blower starts. The DFS operator quickly secures the Emergency Blower. Kiln pressure increases above ECR pressure. Agent vapor flow to the DFS flue is terminated.
- 23:36 CABS in the Afterburner to "high fire" as an auto function on loss of ID fans. CAB blowers were manually shut down By DFS operator. CAB flows go to zero. Negative pressure values of $-2''$ ($-3.5''$) and $-6''$ WC return to the kiln and Afterburner. Agent vapor is again drawn into the DFS from ECR B. Afterburner temperatures were at $1,205^{\circ}$ F and $1,238^{\circ}$ F. Operator puts Emergency Blower in manual and stops it. See Appendix B, Figure 2 for the after burner temperature history and analysis.
- 23:36-39 Second stage of ID fan brought up and then shut down on high amps. First stage brought up and shut down on High Amps. Second stage brought up again.
- 23:38 Monitoring Team reports the Stack ACAMS evaluation results. "The agent peak is good, it covers the full width of the agent gate at one-half maximum. I recommend you put a rush on the DAAMS." The CRS interpreted "good" to mean there is not probable agent and did not initiate Contingency Procedure additional actions for "Probable Agent" including notification of the Management Advisory Team (MAT).
- 23:41 First alarm in DFS flue duct occurred (from DFS/PAS to common stack) ACAMS 702 at 1.45 ASC. The PSM and CRS considered the 701 ACAMS alarm on the common stack to be false because ACAMS 702 in the DFS duct should have occurred first. Later investigation and analysis determined that the 702, sample line was fouled with caustic from carryover that neutralized the agent vapors.
- 23:42 The Control Room Utility Operator notified the EOC of the ACAMS 702 alarm. The Control Room Supervisor directed operations to bottle up the furnace. Kiln pressure increases to $-0.2''$ WC terminating agent flow from ECR B to the DFS. At this point the PSM and the CRS thought that the alarms were caused by "interferants" since many false ACAMS alarms had occurred in the past.
- May 9, 2000
- 00:17 All Stack and Duct ACAMS alarms have cleared by 00:08 and remained clear for 9 minutes.
- 00:18 The PSM unmasked the site.
- 00:23 The CRS directed the DFS Operator to attempt to come out of "bottle up", purge and relight the DFS Afterburner. The DFS operator started the first stage ID fan.



The Afterburner temperature was 1,584° F. Kiln pressure decreases to -2.7" agent vapor is again drawn into the DFS from ECR B.

- 00:25 The Utility Operator notified EOC that All ACAMS alarms are have cleared and DAAMS sample results are pending
- 00:26 The DFS operator started the Afterburner CAB. Kiln pressure increased to -1.1" WC terminating agent vapor flow into the DFS flue.
- 00:29 Received ACAMS alarm on common stack 701B at 0.39 ASC and duct ACAMS 702 at 0.86 ASC. Control Room utility operator ordered all site personnel to mask.
- 00:30 The Control Room Utility Operator notified the EOC, and completed site notifications (Safety, Environmental, Monitoring and QASAS). Received ACAMS alarm on common stack 701C at 0.56 ASC.
- 00:32 The DFS operator secured the ID fan and reduced CAB flow to the Afterburner. Kiln pressure increased to -0.3" WC terminating agent vapor flow into the DFS flue.
- 00:40 Stack ACAMS 701 B alarm cleared.
- 00:44 The DFS operator secured the CAB for the Afterburner and bottled up the furnace.
- 00:56 Duct 702 ACAMS alarm cleared. Safety, Environmental and QASAS have been notified that all ACAMS alarms have cleared.
- 00:57 The Control Room Utility Operator received the DAAMS laboratory confirmation concerning the first release. Contingency Procedure action was not taken to request RTAPS downwind monitoring and activate the Management Advisory Team (MAT).
- 01:03 The PSM reclassified event as Action Level 4. QASAS was notified.
- 01:07 The PSM unmasked the site.
- 01:08-01:15 EG&G Environmental Compliance, Safety, and Risk Managers notified.
- 01:17 The Utility Operator notified the EOC that the DAAMS tubes for 701A/B/C Confirmed chemical agent at 2.74 ASC.
- 01:31-01:38 EG&G Deputy General Manager (DGM) for Operations, and Plant Operations Manager notified



- 02:30 PAS 701 DAAMS tube laboratory analysis confirmed the release of chemical agent. Control Room Utility Operator notified EOC.
- 03:00 DSHW notified. The report was recorded on the DSHW answering machine.
- 04:00-04:30 The EG&G DGM of Risk Management, PMCD Assistant Project Manager for Operations, Compliance and Monitoring and DCD Civilian Executive Assistant met on site to evaluate the situation and further investigation and recovery actions.
- 08:00 DSHW was notified via conference call with PMCD and EG&G senior management.

2.2 Operations

2.2.1 Roles and Responsibilities

The TOCDF Organization charts were revised in April. Line management at this facility includes the General Manager, Deputy General Manager-Plant Operations, Plant Operations Manager, and Plant Shift Managers for their respective shifts.

TOCDF operations are conducted on a 24-hour per day, seven-day per week basis. Each shift is 12 hours long. Four teams (A-Team through D-Team) work the shifts on a rotating basis. Each team is led by a Plant Shift Manager (PSM). His three primary direct reports are the Operations Supervisor (OS) who is responsible for activities in the plant outside the control room, the Control Room Supervisor (CRS) who is responsible for control room activities and the maintenance supervisor who is responsible for all maintenance activities. Each supervisor is responsible for a variety of operators. An operator is stationed at each of the four furnace systems and at the utility console in the control room. Other operators man consoles that control demilitarization machines and other activities. In addition, special operations may require additional operators such as occurred on the day of the release when a DPE entry was made into ECR-B. PAS operators, entry team members, and unpack area operators, among others report to the Operations Supervisor. The instrument technicians report to the maintenance supervisor.

2.2.2 Description of Shift Operations

On the eighth of May, the regular PSM and OS were present, but the usual CRS was off that night. The qualified and certified acting CRS was normally the assistant to the CRS for A-Team. The DFS operator had been certified in February and had little experience with the DFS because it was A-Team policy that operators would rotate among the different stations. Two other members of the A-Team were also off that night; however, more than enough personnel were present to handle scheduled operations. After the watch turnover, the OS conducted a pre-operations briefing for the DPE entry. No formal record was provided, but the following shift personnel were present:

1. DSA Lead
2. DPE Entrance Controller

3. Two DPE Entrants
4. Maintenance Lead
5. Operations Supervisor
6. Shift Safety
7. Shift Quality
8. Shift Environmental Representative

Neither the PSM nor the CRS was present. At the brief, it was decided that if time allowed, routine preventive maintenance such as cleaning AQS strainers would be done after clearing the ECR-B/DFS feed chute lower tipping gate malfunction. The CRS was not aware of this intent according to his statement. The PSM directed the CRS to obtain concurrence from a Systems Engineer for using the Non-Normal procedure, DFS-011-01, DFS Feed Chute Line A Explosives Cleanout, for the DPE entry. The DFS operator had not used that procedure before and it came with a memo from the Plant Operations Manager that was written on March 20 describing a specific desired operating configuration. No instructions for recovery were provided in the Memorandum, the Non-Normal Procedure or the DFS Standard Operating Procedure.

The DPE Entry Team experienced multiple failures with cleaning equipment during the entry and spent more time dealing with the chute than planned. The DPE Entry Team did clean agent strainers as planned. The upper and lower chute gates were open while the DPE Entry Team was present in ECR-B. The DFS operator and the DPE Entry Controller communicated through headset during the entry. The CRS was not on a headset and not aware of the detailed activities conducted during the entry and that the AQS strainers had been cleaned and residue placed on the feed gate nor was he aware that the DPE entry team was inside the ECR-B when both chutes were open.

The CRS was not aware that the ACAMS for the ECR-B was calibrated in MPL and of the ECR-B general level of contamination measured in the MPL during the entry and for most of the shift. Further, he was unable to relate readings in MPL to equivalent IDLH or TWA.

Shortly after the entry was complete, the DPE Entry Controller (an experienced certified DFS operator) joined the DFS operator in restoration efforts that were not successful. Both related in the interview that they did not have authority to shutdown or "bottle-up" the furnace in an emergency and that either the CRS or PSM had to authorize that action.

As stated in the previous section, the CRS was preoccupied with administrative work related to Lockout/Tagouts and work permits. He knew there was an unstable furnace and allowed the DFS operator to continue his effort to regain control because he considered it to be good training. The PSM stated that he concurred with the CRS having the DFS operator continuing for training. The extent of the PSM's knowledge of the furnace's condition was not clear. Confronted with the Kurz failure problem, the CRS chose to jumper out the safety feature rather than determine and correct the cause. The PSM along with Safety, Quality, and Environment shift representatives concurred.

The TOCDF management system allows deviations from procedure and design basis requirements to occur at the shift level to bring the facility into a safe condition.



Operation Management Memoranda are used to provide direction to operators. However, OMM-00-05 specifically modified a procedure without the typical review process. There is no indication that this procedure as modified by the memorandum had been evaluated or tested.

In the period from January 1, 2000 to April 5, 2000, there were 80 ACAMS false positive alarms. The report from the monitor who evaluated the first 701 ACAMS alarm to the CRS was misinterpreted by the CRS who considered that the report confirmed a typical, false alarm.

There were no effective investigation actions taken that revealed the agent release path in the time after the first release and before the smaller second release. Nonetheless, the PSM directed a second re-light effort without having identified the source of the release.

2.3 Training

2.3.1 Program

The training program is comprehensive, well documented and fully implemented. The Army sponsored program provides basic training at a central training facility in Maryland. Instructors at CDTF provide formal classroom and console simulator training. Personnel are considered qualified upon completion of their required training. Qualified instructors provide local training in a formal classroom environment for both general employee and refresher subjects. No furnace simulator training is available at the TOCDF site. All personnel are required to certify in their assigned positions through a local on-job-training (OJT) checklist process. Final certification is granted following an oral examination of the candidate for critical job assignments which are Control Room Operations Supervisor, Outside Operator, Control Room Operator and Plant Shift Manager. Refresher subject training is scheduled as required.

Plant operations personnel administer a required reading program and conduct informal OJT in the plant. Biennial recertification is required with supervisors selecting a sub-set of full certification requirements for evaluation. Little to no opportunity is afforded for training in furnace upset conditions.

2.3.2 Records

Training records were complete, well ordered, and up to date. The training status for the General Manager, Deputy General Manager Plant Operations, and Plant Operations Manager were reviewed. Training records for the A-Team shift were spot-checked. Records for the Plant Shift Manager, Operations Supervisor, CON Supervisor, DFS CON Operator, and DPE Entry Controller were inspected.

Each member of the control room was qualified and certified in accordance with the requirements. The General Manager was assigned in March of 1998 and completed certification on May 23, 2000. The Deputy General Manager Plant Operations was assigned in July of 1998 and certified in February of 2000. The Plant Operations Manager was assigned in October of 1999 and has not completed certification.



Further, each member of the control room team was current in required reading. The Operations Supervisor had not read SOP-004 Revision 4 Change 0 or SOP-004 Revision 4 Change 1.

The recently certified DFS Operator received 42 hours of classroom instruction on the DFS and a total of 32 hours of simulation training of which 16 hours were simulation training in eleven upset conditions.

2.4 Procedures

TOCDF maintains an extensive set of procedures including:

- SOPs (Standard Operating Procedures)
- MOPs (Maintenance Operating Procedures)
- LOPs (Laboratory Operating Procedures)
- PRPs (Project Regulatory Procedures)
- NNPs(Non-Normal Procedures)

Specifically, several of the procedures had a direct relationship to the accident of May 8, 2000. In particular, the following procedures were reviewed as part of the accident investigation:

- SOP-003, DFS PAS Operations, Rev.9
- SOP-004, DFS Operations, Rev.4, Change 1
- SOP-112, ECR Housekeeping and Maintenance, Rev.3, Chg.1
- MOP-614, DFS Blind Flange Installation/Removal, Rev.2
- PRP-OP-009, Configuration Management: Temporary Change Control Process for the Technical Baseline, Rev.10
- PRP-MG-010, Non-Normal Procedure Development, Revision and Deletion, Rev.0
- PRP-MG-013, Notification Procedure, Rev.0
- PRP-MG-014, Event Investigation and Corrective Action, Rev.0
- PRP-SA-002, Accident, Incident and Near-Miss Investigation and Reporting, Rev.2
- DFS-008-01, Plan for Non-Normal Operating Condition, Titled: DFS Feed Chute Cleanout
- DFS-010, Non-Normal Procedure for Clearing DFS Feed Chute Using Water/Air Lance
- DFS-011, Plan for Non-Normal Operating Conditions
- DFS-011-01, Plan for Non-Normal Operating Conditions, Titled: DFS Feed Chute Line A Explosives Cleanout
- GPL-EP-001, Emergency Guideline for Control Room Operation, Rev.3
- GPL-EP-002, On-Scene Incident Commander, Rev.0
- EG-069, Integrated Notification, Investigation and Reporting Plan, Rev.0
- EG-040.A01, Contingency Procedure for Agent Detected in the Stack, Rev.2
- EG-044, Training Qualification and Certification Procedure, Rev.4
- CDRL SY-015, TOCDF Contingency Procedures
- CDRL SY-022, Limiting Conditions of Operations, Rev.2
- CDRL A012A, TOCDF Emergency Response Plan, Rev.2
- CDRL 22, Participant Quality Assurance Program Plan
- LOP-522, Depot Area Air Monitoring System, Rev.5



- LOP-524, ACAMS Operation, Rev.5
- LOP-525, ACAMS Alarm Response, Rev.4
- LOP-562, Analysis of Depot Area Air Monitoring System (DAAMS) Tubes, Rev.3
- LOP-567, GC-MSD/FPD Operation, Rev.1
- LOP-592, QC Procedures for Monitoring Operations, Rev.2
- LOP-594, QC Procedures for Analytical Operations

2.4.1 Facts Concerning the Procedures

SOP-003 describes DFS PAS Operations. It is a compilation of 10 procedures including, pre-operational conditions, system startup, manual operations, local mode operations, normal operation, system shutdown, extended shutdown, manual switchover of demisters, quench tower clean out, and pumping PAS sump-110. The use of the spare demister, PAS-DMIS-105, which was in use during the May 8 accident, is covered in this procedure. This procedure contains the following caution: "The existence of any liquid level in the Quench Tower is cause for concern and requires immediate attention by the PAS Operator." In addition, the following caution is in this procedure: "Manual control may be used to execute startup/shutdown of individual equipment during maintenance, or to recover from an upset condition that cannot be accomplished in Auto Mode." All such manual operation must be reported to the Control Room Supervisor. Operators are instructed to refer to the "appropriate contingency procedure" if a release of hazardous material occurs through the stack. This procedure does not provide guidance to operators for correcting fault conditions.

SOP-004 covers DFS Operations. In reality SOP-004 is a compilation of 11 procedures. This procedure includes pre-operational conditions, system startup, manual operations, local operations, system shutdown, emergency shutdown, extended shutdown, Afterburner flange isolation, suspected detonation and limited special operations. The section on emergency shutdown does not convey the conditions under which emergency shutdown is required or even recommended. The section on Afterburner flange isolation suggests operation by Reverse Flow Cooldown for extended shutdown. The special operations include only single and two-stage ID fan failure or loss of power even though operator training includes additional upset conditions. Credible upset conditions included in formal DFS Operator training are: Automatic Waste Feed Cutoff; Kiln Burner Lockout; One Afterburner Lockout; Both Afterburners Lockout; Furnace Shutdown; and Kiln Detonation. Special operations have not been extended to other abnormal or upset conditions, e.g. recovery from a non-normal operation such as cleaning the DFS Feed Chute. Direction regarding abnormal or upset conditions is simply to notify the Control Room Supervisor.

SOP-112, ECP Housekeeping and Maintenance, directs the Control Room Operator to notify the Lead and Operations Supervisor/Control Room Supervisor in the event of an abnormal or upset condition. Entrants to the ECR must be dressed in accordance with the guidance in TE-SOP-113. Opening ECR-B doors will affect the pressures in the upper munition corridor, the Explosive Containment Vestibule (ECV) and ECR-A. During rocket operations, the ECR is a Category A area requiring DPE for entry. When any doors to ECR are open, the associated HVAC inlet isolation dampers for that ECR must be closed to prevent agent migration into the ECV. Operators are instructed to use Appendix A for housekeeping and maintenance during

rocket processing. Clear instructions regarding energetic contaminated sump strainers include placing the strainer into the PM waste container on the floor next to the DFS Feed Chute. Then all waste debris is supposed to be placed on the DFS Feed Gate. (Normally the Feed Gate is cycled to dispose of the debris.) According to interviews with personnel on duty the evening of May 8, this procedure was followed, resulting in debris with high agent content being placed on the DFS Feed Gate.

CDRL A012A describes the TOCDF Emergency Response Plan. This is a high level plan providing the entire program for preparing for, responding to, and mitigating the consequences of an emergency. The Contingency Plan satisfies RCRA Permit #UT5210090002 requirements. This Contingency Plan is actually a separate volume in a separate binder. (The Contingency Plan can be found as Attachment 9 to the RCRA Permit.) The Contingency Plan specifies the use of GDL-EP-001. Appendix B is the CAIRA, which meets the requirements of DA-PAM 50-6 and AR 50-6 for GOCO operations at TOCDF. It is based on the maximum credible event (MCE).

Contingency Procedures for several scenarios are bound in one volume numbered EG-040, where EG-040.A01 is for agent detected in the stack, EG-040.A02 is for agent detected in a limited access area, EG-040.G01 is for an industrial accident, EG-040.G02 is for fires, EG-040.G03 is for hazardous material, etc. The procedure in this series most pertinent to the accident of May 8 is EG-040.A01. An alarm of the ACAMS involving PAS 701A, B, or C triggers the use of this contingency procedure. Among other actions, an informal notification according to the procedure GDL-EP-001 is to be made. Also an event report is to be started. If there is probable agent release, several escalating actions are called for. If the ACAMS alarm is confirmed by the DAAMS, then even greater action is required, including activation of the Management Advisory Team (MAT). The MAT would report to the EOC. Closure of this procedure includes participation in review and recovery investigation and returning the plant to normal operating condition. In this event, informal notifications were not made. The MAT was not notified when required, the MAT was not activated, and the RTAPs downwind monitoring was not requested.

EG-069 is the integrated notification, investigation and reporting plan. It provides the event identification and classification criteria. The action levels range from Level 1 to Level 4. Since the May 8 accident involved an agent spill or release, the pertinent action level as defined by EG-069 is Level 4, although this was not immediately recognized by the A Shift personnel on duty that night as determined through interviews with the A Shift personnel. The specific criteria is "any release outside of engineering controls". For any classified event, a Notification Form (found in Appendix B) must be completed and distributed based on the defined action level. The Notification Form provides a description of the event, captures key data for analysis, and describes immediate actions that have been taken. A Notification Form was completed for the May 8 accident.

MOP-614 covers blind flange installation and removal. Instructions include compliance with the section of SOP-004 on Afterburner Flange Isolation Operation. ID fans and DFS Pressure Control Damper (PIC-018) must be placed in the manual position for this operation. Notes in this procedure allow for deviation from verbatim compliance with this procedure if abnormal or upset conditions exist.



Non-Normal Procedures are driven by PRP-MG-010, Non-Normal Procedure Development, Revision and Deletion. The purpose of a Non-Normal Procedure is to document procedural steps, safety, environmental and special equipment requirements for operations and jobs that are performed on a one time or infrequent basis. These procedures expire after 30 days unless extended. They can only be extended twice, then must be re-written. Chute clean out procedures for the DFS have been written at ten times and extended as required since the plant began service. Ten Non-Normal Procedures exist with similar titles and content regarding DFS chute access for cleaning or clearing jams. Two of these are active, DFS Feed Chute Cleanout DFS-008 and DFS Feed Chute Line A Explosive DFS-011-01. These active procedures require adherence to a Memorandum (OMM-00-05), which was not appended to the procedure and had to be located separately (not in procedure binder). The details of OMM-00-05 are actually in an attachment to the memo itself. Even though it was written specifically for clearing explosive jams in chute the feed from ECR A DFS-011-01 was used to clear material to correct a lower "tipper" gate malfunction from the feed chute from ECR B. The Non-Normal procedure call for entrants to exit ECR prior to opening the tipping gate (DFS-GATE-101) on the DFS Feed Chute; however, the entrants on the evening of May 8 stayed in the ECR while both gates were open simultaneously.

Procedure PRP-OP-009 defines the method to identify, approve, record, install, validate, and remove a temporary change to the plant equipment and control systems. The Plant Shift Manager has the authority to implement a temporary change; however, concurrence of other personnel may be required depending on the nature of the change. For a change that involves a RCRA item, the Environmental Shift Representative would consult with the Environmental Compliance and Permitting Managers for a resolution. The procedure calls for closure of a temporary change to ensure that the configuration has been returned to the normal previous condition. It would apply to such actions as temporary jumpering out of the Kurz meter to enable Afterburner relight after a low-low level alarm such as occurred during the May 8 accident. The function of the Kurz flow meter is to provide flow measurement and a flow present logic input to the Burner Management System (BMS). In this case, although there was flow indicated by other instruments the Afterburner temperature was below 1,400° F and bypassing the Kurz flow input to restart the burners would have not met NFPA code. A jumper to bypass the Kurz instrument is a bypass of a primary protective feature in the DFS Operating Software against flammable gas build up in the combustion chambers of both the kiln and the Afterburner.

2.5 Engineering

2.5.1 Deactivation Furnace System Design Requirements

There are three performance design requirements for the deactivation furnace system. They are:

- Thermally destroy agent vapors,
- Thermally decontaminate munitions parts/residue,
- Thermally destroy explosive/energetic material.

The design requirements must be met in a manner that is safe to plant personnel, to the public, and to the environment.



The DFS design meets the requirements through three general mechanisms:

- Explosive and energetic materials are burned in the rotary kiln through a counter current flow combustion process,
- Munitions parts and residues are thermally decontaminated to the 5X level (1000 degrees Fahrenheit for 15 minutes) in the heated discharge conveyor,
- Agent vapors are thermally destroyed in the Afterburner: temperature greater than 2050 degrees Fahrenheit and residence time greater than 2 seconds.

The DFS furnace system has demonstrated it meets the design requirements when operated at the temperatures, pressures, and flows indicated in SOP-004. The performance data comes from trial burns and performance in destroying M-55 rockets and M-56 warheads.

2.5.2 Wet Pollution Abatement System Design Requirements

There are three general design requirements for the DFS Pollution Abatement System (DFS PAS). The PAS cools DFS exhaust gases, chemically treats acid gases to environmentally acceptable levels before they are released to the atmosphere, and provides induced draft to the entire DFS and PAS system.

The PAS accomplishes these design requirements by the use of:

- Quench tower
- Venturi scrubber plunger
- Packed bed scrubber tower
- Demister
- Induced Draft (ID) Fan
- Emergency exhaust blower
- Various recirculation and transfer pumps
- Associated piping and instrumentation

The PAS processes the exhaust gases that flow directly from the furnace. The gases, cooled and scrubbed by the PAS, are discharged into a stack that is common to all four wet PASs. The spent brine produced by the PAS is pumped to the brine storage tanks (BRA Tanks) for temporary storage and then shipped to a licensed and permitted hazardous waste disposal facilities. The PAS requires process water, and 18% wt. sodium hydroxide.

The DFS pollution abatement system has demonstrated it meets the design requirements when operated at the temperatures, pressures, and flows indicated in SOP-004. This is demonstrated by performance data from previously conducted trial burns and the successful processing of M-55 rockets and M-56 warheads up to the date of this incident.

The MORT chart directed the investigators' attention to areas such as Human Factors. In that regard, the CROs have to view multiple computer screens to status the DFS Furnace and PAS operating systems through a complex man/machine interface. There are 12 primary screens associated with the DFS Furnace and PAS operation. In addition there are a large number of auxiliary screens with supporting information.



2.6 Maintenance

Maintenance records were reviewed for the evening of May 8. No maintenance activity was scheduled for the DFS. The emergent maintenance discussed in the pre-entry brief for the chute B clean out evolution included cleaning agent strainers and routine ECR B preventive maintenance. Entry time limits precluded the preventive maintenance; however, the agent strainer was cleaned and placed on the B chute slide upper gate per procedure.

2.7 Environment

The agent stack release on May 8, 2000, was reported to all appropriate regulatory agencies within the time frame required by TOCDF's RCRA permit. The stack release at 23:26 on May 8th was a potential noncompliance with TOCDF's RCRA permit as it exceeded the maximum allowable stack concentration for GB agent of 0.0003 mg/m³ (1 ASC). There were no other potential environmental noncompliance's associated with the event that took place on May 8th and 9th. The agent release from the common stack at 00:28 on May 9 was below the permit limit.

2.8 Quality

An examination of quality assurance records was conducted that shows a recent trend toward more frequent events at TOCDF. Until recently the site had experienced no more than 13 events in any given month according to the Quality Assurance records. There have been 22 events in March, 25 events in April and 10 events in the first 10 days of May with the plant's first confirmed agent release.

Multiple deficiency management and tracking systems are in use at TOCDF. QA, Environment, and Safety use the Deficiency Report; engineering uses the ECP; and Operations has another system. In addition, another system tracks investigation corrective actions. Several outstanding corrective action items have been closed by opening another action item, sometimes in a different system. In particular, Engineering Change Proposals (ECPs) have been used to close event-related corrective actions. The ECPs in and of themselves do not accomplish the corrective action; they only start the process.

Several previous events have required an excessive amount of time to close; sometimes taking a year or more. A few events do not have a record of closure in the QA system. Closure reports are not in the QA records.

2.9 Safety

An engineering analysis to determine the amount of agent released was performed using ACAMS readings (ACAMS 701A & 701C) during the period of 23:26 to 23:52, May 8, 2000. From this calculation it was determined that approximately 17 mg of agent was released in this 25-minute event. The second release alarming at 00:28 on 9 May and lasting 28 minutes released approximately 1 mg of agent.



Raw data was used by the United States Department of Health & Human Services (DHHS), Centers for Disease Control and Prevention (CDC) to assess the public health risks to both workers and the community. The data was used to run a "worst-case EPA-approved air dispersion Model". The results showed the release posed no short or long-term threat to the health of the general public.

This same analysis determined that the maximum possible exposure to agent GB at ground level during this incident was less than one percent of the Department of Health & Human Services (DHHS) acceptable safe level for such an exposure to the general public.

The air dispersion model that was used was based on a "worst-case parameters" methodology, including meteorological down-wash to determine maximum local agent concentrations. This analysis demonstrated that down-wash conditions would not have occurred for any significant duration. The maximum possible exposure amount for workers was less than one-percent of the safe exposure amount. In addition per the related Contingency Procedure, the entire site was ordered masked by the utility control room operator upon receipt of the first ACAMS alarm making actual exposure (from inhalation) even less likely.

There were no other indications inside the facility nor around the perimeter, confirming the release was a localized and confined to the common stack. Because of all these factors there was minimal to no health or environmental risks from this incident.

2.10 Security/Surety

Security was considered for completeness. There were no security-related concerns developed in the investigation.

Surety was also considered for completeness. Agent quantities in this event were below surety level quantities. There were no surety related concerns developed in the investigation.

3.0 CONCLUSIONS

3.1 The following conclusions can be drawn from the data available;

3.1.1 The DFS was out of service because the tipping gate malfunctioned from material buildup on the gate necessitating a DPE entry to clean out the chute.

3.1.2 The overall operation of the facility should be directed by the Plant Operations Manager. Operations management should ensure that only trained and qualified personnel operate plant equipment in accordance with approved procedures. Non-routine operation of controls should not be made without specific approval of the Control Room Supervisor except that during emergencies, operators may take necessary immediate actions required to ensure personnel, plant, and environmental safety without obtaining prior approval. However, appropriate supervisors should be promptly informed of these actions. Operators should be instructed that plant safety should be achieved over facility production for off normal and emergency facility conditions.

- 3.1.3 In the absence of a standard or non-normal procedure for ECR B, a non-normal feed chute clearance procedure for ECR A was given by the PSM to the CRS to guide control room operators and other shift personnel in the entry and clean out work. That procedure contained errors in component nomenclature and included a reference to an Operational Management Memorandum Program (OMM) Memorandum that included configuration and operating parameter guidance that had not been evaluated or tested operationally. Furthermore, the operator guidelines were an attachment to the memorandum. Both the memorandum and its attachment could be separated from each other and the non-normal procedure. A non-normal procedure for ECR B should have been prepared and approved or the ERC B procedure formally modified and approved using the related plant process. The guidance in the memorandum should have been included in its entirety in the non-normal procedure and shift personnel trained in it. Because of the frequency of ERC entries, and SOP should be prepared.
- 3.1.4 The non-normal procedure causes the DFS to operate outside its normal operating parameters with twice the usual flow to develop a kiln pressure that is lower than the ECR pressure.
- 3.1.5 Low kiln pressure relative to the ECR introduced agent vapor from the agent contaminated ECR and the agent strainer basket on the slide gate into the DFS.
- 3.1.6 It is unknown if the automatic control system could have established normal operating conditions because the operator exercised manual control of the system; however, slow control loop tuning would have caused a significant delay in system response. The PSM or the CRS should approve all process rate changes because these persons are held accountable for safe operation. Additionally, they will probably be the persons most knowledgeable of problems that occur as a result of changes. Nevertheless, the operator should be authorized to decrease rate without approval, if necessary, to respond to a facility emergency situation in accordance with the facility's emergency procedures.
- 3.1.7 Manual control inputs to PIC-18 to control kiln vacuum were ineffective in reducing the higher than normal flow through the system. This contributed to high moisture carry over (entrainment) and both high moisture on the Kurz probe and difficulty with clean liquor level in the scrubber.
- 3.1.8 The scrubber clean liquor system is unable to maintain adequate levels under high flow conditions. High flue gas flow rates were "scavenging" clean liquor from the scrubber removing the liquor from the system. Also, it was reported that the system has difficulty maintaining adequate levels under normal conditions.
- 3.1.9 Utilization of the Process Water (PW) sprays for make up to the clean liquor under high flue gas flow conditions provided additional moisture that contributed to high moisture into and failure of the Kurz meter probe, clean liquor deposition into the 702 ACAMS sensor, and increased the load on the ID fans. The PW spray in the scrubber tower is intended to spray the mist eliminator pad and, as currently designed, increases the potential to cause moisture entrainment; therefore, the clean liquor recirculation capacity and its make up feed from process water should be modified to maintain normal sump level across the full range of flue gas flow.

- 3.1.10 Failure of the Kurz meter caused automatic shut down of all three burners in the DFS (One in the Kiln and 2 in the Afterburner). The need is evident for either replacing the Kurz meter and system with one that is not moisture sensitive to improve reliability or develop redundant means of measuring flow associated with a comparison, vetting or auctioneering networks and software to ensure one incorrect alarm does not lock out the burners while operators are ensuring flows by observing other indications.
- 3.1.11 The only existing design control that will contain agent vapors in the DFS kiln is applied by installing the blind flange and potentially exposing workers and the environment to agent vapors if the pressure in the DFS flue is above atmospheric pressure. EG&G Defense Materials had recommended installation of an isolation valve that could be remotely operated from the control room. This isolation valve would contain agent vapors in the DFS kiln should flue gas flow be high, kiln and Afterburner temperatures be too low, and residence time be too short to ensure incineration.
- 3.1.12 Agent vapor in the DFS was not thermally destroyed because of the low DFS temperature (approximately 1,160° F) and low residence time (under 2 seconds).
- 3.1.13 The DFS/PAS Induced Draft (ID) exhaust fan system develops much more flow than is necessary to ensure proper operation and can exacerbate operator errors.
- 3.1.14 Percolating flue gas through clean liquor in the scrubber did cause a dampening effect on the flue gas flow and allowed some agent absorption at the low level concentration that was present during this agent release.
- 3.1.15 If the LOPs regarding ACAMS and DAAMS had been followed explicitly, the minor errors, some of which contributed to the misidentification of the source of DAAMS data - coming from station 704 vice 702, that were made during the May 8-9 accident could have been averted. However, the minor errors did not exacerbate the severity of the accident nor hinder its amelioration.
- 3.1.16 In the TOCDF procedure system there is no clearly defined hierarchy, the workforce does not understand the hierarchy of documents, and in many cases multiple documents address single topics or functional areas, such as emergency response. The result is it is not clear what specific document(s) should be used in any given situation especially in highly dynamic, non-normal operating conditions.
- 3.1.17 TOCDF has been operating since 1996 and the operations are based on years of prior Chemical Demilitarization experience involving the incineration of chemical agents using similar systems. The operations have transitioned to production. Consequently, it is difficult to understand why the site operating procedures are prefaced by a note that states: "During abnormal or upset conditions the Plant Shift Manager or designee may deviate from this SOP in order to bring the plant back into a safe and environmentally sound condition and configuration." The caveat or disclaimer in the SOPs which allow the Plant Shift Manager without communications with upper management to deviate from procedures to restore the plant from upset to safe and normal conditions may be abused and is not the proper method to resolve situations caused by inadequate SOPs, contingency procedures and non-normal procedures in handling probable plant and equipment problems. Certainly, an emergency or contingency action procedure must be

available for abnormal or upset conditions and it would be appropriate to identify that procedure and require that it be followed meticulously. Then the note in the forward of SOPs would simply reference the emergency/contingency procedure. The current caveat regarding abnormal conditions encourages a mindset of expert-based operations instead of standards-based operations. Realizing the time required for development and training "standards based" rather than "experienced based" operations should be the desired goal for TOCDF.

- 3.1.18 The temporary change policy in the procedure PRP OP-009 requires revision since it permits the Plant Shift Manager (PSM) to implement temporary changes such as that involved with jumpering the Kurz meter. This action would not have met the NFPA Code since the Afterburner temperature was less than 1,400° F and removed a protective feature in the Burner Management System. Although the temporary change was prepared, the Kurz meter jumper was not installed. This should not be done unless there is a complete understanding and acceptance of the risk involved and special mitigating measures identified. Higher authority than on shift personnel should be required to approve code work arounds and interpretation and safety feature removal. Further, it allows the PSM to authorize modifications with only review from on-shift safety, environment, and quality assurance personnel and phone confirmation from a system engineer. Prior to modification, this control should provide for communicating the installation of temporary modifications to the design authority to allow for technical oversight and an evaluation of the impact on current design activities, and approval of the design modification. These control systems should make provisions for safety reviews, installation approval, independent verification of correct installation and removal, documentation of the modification, update of operating procedures and documents, training, marking of installed modifications, and periodic audits of outstanding modifications.
- 3.1.19 The authority given the PSM to deviate from SOPs, make temporary changes to safety, code, permit and protective features without reference to senior line management gives shift managers and supervisors a high degree of autonomy and potentially separates senior line management from understanding the condition of the plant, obtaining informal reports during contingency plan execution and delays timely reports of upsets and emergencies, and keeps senior management from providing advice and assistance.
- 3.1.20 Document control requires much improvement. At least three versions of the same document (Contingency Procedures) were found in the Control Room. The operators all believed that they had the current version and were acting based on that supposition. Since TOCDF uses a hard copy document control system, it is incumbent upon the individual document holders/users to ensure that they have current revisions and replace out-dated documents in their binders. Further, it is incumbent on management to have an oversight system to ensure proper document control and that only the most current revisions are being used by operators. The failure rate for this type of document control system depends on human reliability and is normally considered to be a few percent. For critical documents, this is probably too great a residual risk. Electronic on-line document control systems have lower failure rates and more positive control of documents where broad distributions mean many manual holders are involved.

- 3.1.21 The need for improved adherence to procedures was noted in using a non-normal procedure for the wrong ECR, the entry personnel remaining in the ERC-B while upper and lower feed chute gates were open simultaneously and being cycled, some missing notifications, and a missed request for RTAPS downwind monitoring, required by the Contingency Procedure, and three missed steps in the sampling and analyses LOPs.
- 3.1.22 There is a prevailing consideration among some operators and managers that agent will be destroyed as long as temperatures are above 1,000° F. As this event proves, this consideration is not true of this plant since at temperatures between 1,160° F and 1,250° F, twice the normal flow and a residence time less than 2 seconds, agent destruction did not occur. The operators need a guide that correlates Afterburner temperatures and flow/residence time, and the plant needs an engineering control feature to isolate the agent should residence time be too short for total incinerator.
- 3.1.23 Operators and supervisors were hesitant to believe the ACAMS alarm because of the myriad of false alarms documented for the current alarm system. This led to a hesitation in bottling up and search for a source of the agent. And ultimately to the second release in the event. Operators and supervisors should believe instrument readings and treat them as accurate unless proven otherwise. Ignoring an unusual reading because the operator believes an instrument is faulty can cause abnormal conditions to be undetected. In general, operators should check other indications, if possible, when unexpected readings are observed. Prompt action should be taken to investigate the cause of abnormal or unexpected indications so that prompt corrective action can occur. When malfunctioning or inaccurate instruments are discovered, they should be appropriately identified to prevent subsequent confusion and instrument and control personnel should be in place to effect repairs. In situations of operator doubt, operators should be instructed to achieve personnel, facility, and environmental safety above facility production.
- 3.1.24 Some operators did not have a feel for the levels of agent contamination in the ECR and were not aware of the path for agent flow set up by plant conditions during the recovery. Training upon the information developed during this investigation should be in lessons learned and other training, especially on shift training.
- 3.1.25 Because of the twelve primary computer screen displays associated with DFS furnace and PAS operation and the large number of auxiliary screens providing information, it is difficult for the CRO, the CRS and the PSM to obtain essential plant operating conditions in a reasonable time particularly during upset conditions and the associated recovery processes. A DFS/PAS schematic or a single computer screen showing essential components, control device positions, current alarms and current operating temperatures, pressures, flows, etc. is required.
- 3.1.26 The formal training program appears strong and meets program requirements; classroom training records, qualifications and certifications are well documented; and operators have had required training at the Aberdeen simulator. Nevertheless, CROs, the CRS and PSM did not demonstrate a firm grasp of plant dynamics, component purposes, operation and interrelationships. Accordingly, the substance and retention of the training material is of concern and should be addressed in the training program particularly in on shift training. Furthermore, the need for an on site simulator upon which to train on upset conditions and the recovery from them is obvious.

- 3.1.27 There is a recent trend toward more frequent events. There are multiple systems for tracking issues/corrective actions. The practice of shifting issues between the Deficiency Report (DR) system and other tracking systems should be avoided because it leads to excessive time to close issues, complete loss of tracking to closure of some, or loss of data for audit and trend analysis. Further, corrective actions take a long time to close, some are closed by ECP initiation rather than correction and some events do not have closure reports in the QA and safety records. A simpler and more rigorously enforced system is needed and QA and safety personnel should be closely connected to the process. Inspections, audits, reviews, investigations, and self-assessments are a part of the checks and balances needed in an operating program. Line managers and supervisors should perform routine observations of personnel performing operating activities. Also, other groups, such as quality assurance and safety personnel, should periodically review and assess operational performance. These reviews can assist line managers and supervisors in identifying and correcting problems. Deficiencies identified in all audits, investigations, and reviews should be documented, tracked, and corrected all under one system.
- 3.1.28 It is not clear from the available documentation how and where issues from previous incident investigations have been tracked to closure. In addition, there is no documented evidence that lessons learned from either the Chemical Demilitarization Operations Manual (CDOM) or the Program Lessons Learned (PLL) have been implemented at TOCDF. Both programs have issues/items that have a direct bearing on this incident.
- 3.1.29 The ACAMS alarm from station 702 did not precede the alarm from station 701 apparently because of contamination due to caustic in the high moisture carry over.
- 3.1.30 The operations in progress during this shift were about one third of potential operations that the control room is designed to handle and less than conducted on the average.
- 3.1.31 After the Kurz failure and burners were secured, there was no effective effort made to determine why the Kurz meter malfunctioned nor action taken to correct the problem before attempting to restart the plant. This behavior was repeated before the second stack release. Facility trips and unplanned forced shutdown require a thorough investigation. When protective devices trip (e.g., circuit breakers, fuses, multi-channel logic permissives), an attempt should be made to understand the cause of the trip before the device is reset. Normally, before action is taken, an operator should ensure no abnormal condition exists that would preclude reset, because the consequences of inappropriately resetting protective devices vary considerably, good judgment and specific guidance are necessary in this area. The operations management should provide the appropriate guidance so that tripped protective devices will be properly addressed.
- 3.1.32 The Operational Management Memorandum (OMM) program is and should be used to convey information such as special operations, administrative directions, special data-collection requirements, plotting process parameters, and other similar short-term matters to operators. Examples of such memoranda could include amplifying information on the need for and performance of specific evolutions or tests; it could also include work priorities, announcements of policy information, and administrative information. These memoranda should be clearly written, dated, and maintained in the control room. Information, policies and operating guidelines intended as permanent should be incorporated into appropriate procedures. The OMM program should not be used to

change operating procedures, because the changes noted in the operator orders might be missed by a procedure user. Additionally, OMM program memoranda may not receive the reviews or approvals appropriate for a procedural change. Therefore, information intended to supplement operating procedures should be promptly incorporated into the appropriate procedure by a procedure change or revision.

3.1.33 Several instances of poor communication between shift personnel during this event have been identified. Since accurate communications are essential for the safe and efficient operation of facilities, guidance in the use of various forms of audible communication is necessary. This includes repeating back instructions to ensure the accurate transmission and receipt of verbal instructions. Standardized terminology and the use of a phonetic alphabet are other means of ensuring verbal communications are understood.

3.2 Analysis of Event Causes

3.2.1 Root Causes

These root causes set up the path and driving force for agent release to the DRS furnace, PAS and Common Stack. There are two separate but related root causes for this event: performance of the Non-Normal Procedure (NNP); and a DFS Operator unprepared to recover from the upset condition generated by the Non-normal procedure.

3.2.1.1 Performance of the non-normal procedure as modified by memorandum required the DFS and DFS/PAS to be operated in a upset condition, i.e. kiln pressure lower than the ECR pressure that, in turn, required higher than normal flow rates through the entire system. This was done for safety of personnel reasons to prevent flow from the kiln to the ECR up the feed chute and protect the DPE entrants in the ECR from hot kiln gases and prevent a fire or explosion while they cleaned out the ECR B feed chute; but, at the same time, set up a condition for agent flow from the ECR to the furnace and PAS.

3.2.1.2 The recovery from the DPE entry into ECR B to normal operating conditions was not successfully accomplished. Recovery from the non-normal condition after completion of activities in the ECR required returning the kiln to a stable pressure slightly higher than the ECR room pressure and lower flows to ensure longer and proper residence times and proper system component operation. To accomplish this required a level of knowledge and an understanding of the DFS and DFS/PAS system and manual control input cause and effect relationships that the inexperienced, certified DFS Operator, and the certified DFS Operator assisting him did not have.

3.2.2 Direct Causes

These causes prevented the operational engineering features from destroying or absorbing the agent in the furnace and PAS systems:

3.2.2.1 The lack of control of the DFS recovery operation resulted in the loss of burners in the kiln and after burner, and allowed them to cool below a temperature that would destroy



chemical munitions agent at the short residence time (below the low alarm point) caused by the excessive flow in the DFS furnace and PAS systems.

3.2.2.2 Operator action to secure clean liquor flow to the scrubber eliminated the last physical barriers to agent release by removing the damping action of the clear liquid circulation in the scrubber on flue gas flow and the coincidental ability of the clean liquor to absorb low levels of chemical agent. The scrubber is not a design engineering control to prevent the release of agent vapors to atmosphere but was installed to remove acid gases from the flue gases.

3.2.3 Significant Contributing Causes

The following are significant contributing causes to the release of agent vapors to the atmosphere through the introduction of agent vapors into a DFS and DFS PAS that did not have adequate temperature and sufficient residence time to allow the vapors to be destroyed by incinerator.

3.2.3.1 Delays in actions to contain agent vapors (system bottle up) were caused by the following factors and led to the second release from the stack:

3.2.3.1.1 The PSM, the DFS Operator and Control Room Supervisor did not believe the first 701 ACAMS alarm because of the history of frequent false alarms and because the 702 ACAMS did not alarm first. Therefore, they did not take prompt actions to bottle up the system.

3.2.3.1.2 In determining a probable agent release, the PMS and CRS, were waiting for the 702 ACAMS DFS duct alarm which was sensed upstream the common stack alarm and the DAAMS sample laboratory confirmation. The CRS failed to understand the monitoring team's 701 ACAMS printout report, "I have a good agent peak. It covers the full width of the agent gate at one-half maximum. I recommend that you rush the DAAMS result." The CRS stated that he thought that good meant no agent. His evaluation and discussion of it with the PSM precluded bottling up even though bottling up would have recovered Afterburner temperature and stopped agent flow up the stack.

3.2.3.1.3 The CRS and DFS operator's preoccupation with continuing attempts to relight the burners including jumpering the Kurz flow measurement to clear the low flow alarm also delayed the decision to bottle up.

3.2.3.1.4 Failure to believe the indications which supported agent release, determine the condition allowing the agent release and bottling up contributed directly to the second release of agent out the common stack.

3.2.3.2 Higher than normal flow through the whole DFS & DFS/PAS system caused the following non normal conditions:

3.2.3.2.1 Shorter residence times in both the kiln & Afterburner.

- 3.2.3.2.2 Higher than normal moisture carryover (entrained moisture) from the kiln to the Afterburner, and on through the pollution abatement system.
- 3.2.3.2.3 The high flow caused a "scavenging" effect on the scrubber clean liquor sump resulting in difficulty maintaining scrubber clean liquor sump level. Accordingly, the DFS operator was required to manually add make up process water to control "level". The configuration of the clean liquor make up feed spray heads increased the amount of moisture being fed into the mist eliminator pad portion of the scrubber tower and increased moisture entrainment.
- 3.2.3.2.4 High flow rate combined with the manual operation to add water and maintain clean liquor level caused entrained moisture to be drawn across the Kurz flow meter causing it to fail in the low flow alarm condition. This alarm caused the BMS to shut down all three DFS burners (one in the kiln and two in the Afterburner).
- 3.2.3.3 Factors that contributed to cooling of the Afterburner during this incident are the following sequence of events:
 - 3.2.3.3.1 DFS operator reduced the pressure of the kiln so that the kiln pressure was lower than the ECR room pressure during execution of the Non Normal Procedure to clean out the ECR B feed chute. The control mechanism to reduce pressure in the kiln is to increase induced draft by opening the Induced Draft (ID) fan damper causing increased flue gas flow through the DFS and the DFS PAS. This increased flow contributed to lowering the temperature in both the kiln and the Afterburner.
 - 3.2.3.3.2 Failure of the Kurz flow meter also caused automatic shutdown of the burners in the after burner. When the burners shut down the Burner Management System (BMS) automatically ran the combustion air blowers to "High Fire", increasing the flow through the Afterburner with the burners off, further reducing the temperature. Burner shutdown combined with the already established higher than normal flow rate, and CABs at high fire, caused accelerated temperature drop in the Afterburner.
- 3.2.3.4 The need for improved Procedures contributed to the cause:
 - 3.2.3.4.1 The non-normal procedure selected by the PSM, its referenced memorandum and the DFS Operations procedure did not provide necessary guidance in recovering the DFS Plant from the upset condition used to support ECR B entry.
 - 3.2.3.4.2 The DFS operating procedure does not contain directions for bottling up the furnace or restarting from a bottled up condition.
- 3.2.3.5 The Training program as executed did not ensure that the shift operators' and supervisors' learned and retained: the fundamental knowledge and understanding of plant components; their functions and controls; the interrelationships of the components and controls in the dynamics of plant recovery; and the effects of control actions on plant measured parameters.



3.2.3.6 The need for improved communications affected the control of the plant, delayed the understanding that agent vapors were being emitted from the stack and bottling up the plant, hampered the PSM and CRS in understanding the plant status, and delayed the notification of key plant managers who could have assisted.

4.0 RECOMMENDATIONS

The top eleven recommendations are in the following order: 4.1.1; 4.1.2; 4.2.1; 4.2.2; 4.3.1; 4.3.2; 4.2.3; 4.3.3; 4.3.4; 4.3.5; and 4.4.1.

4.1 Procedures

- 4.1.1 Prepare a comprehensive and detailed Standard Operating Procedure for ECR Feed Chute Cleanout and gate malfunction and jam correction. The procedure should include: the philosophy, guidance and direction included in memorandum number OMM-00-05; the procedures for establishment of ECR, DFS and PAS Systems conditions for support of the evolution; and, the procedures for restoration of the ECR, DFS and PAS systems to normal operating conditions. References to necessary supporting Standing Operations Procedures (SOPs) such as SOP 112, ECR Housekeeping and Maintenance, should be made in the procedure. (See Appendix "C" Operations Procedures for guidance).
- 4.1.2 Establish a discipline through training and management oversight, involvement and monitoring of operations in the control room and other appropriate portions of the plant to ensure that the correct and current procedures are habitually opened and used for current normal and non normal operations and evolutions, that all required actions are taken in the sequence prescribed by the procedure, and that communications between shift personnel are affected.
- 4.1.3 Modify the portion of procedure PRP-OP-009 to eliminate the Plant Shift Manager's authority to make temporary changes that compromise plant protective features. Temporary changes that impact safety, environment, health, or regulatory compliance should be reviewed by staff experts in those areas and approved by senior line management. Delegation of this authority should not go below the Plant Operations Manager.
- 4.1.4 Improve the content, scope, comprehensiveness and safety of SOPs, Contingency Procedures and Non Normal Procedures to minimize the use of the Plant Shift Managers authority to deviate from these procedures to those situations requiring emergency actions for safety. Elimination of the need for this authority should be the goal of an effective procedures system. Start with those SOPs involved with the operation of the DFS and PAS systems.
- 4.1.5 Transfer all procedural direction from the Operational Management Memorandum (OMM) program into the appropriate, related SOPs and do not allow the use of the OMM program for procedural direction of operations.

- 4.1.6 Review all SOPs for comprehensiveness and sufficient detail to ensure the safe and proper operation of the plant if used by the operators. Correct the deficiencies noted in specific procedures as detailed in the Conclusions section. Start with those SOPs involved with the operation of the DFS and PAS systems. Use Appendix C as the standard for developing operational procedures.
- 4.1.7 Provide contingency procedures to assist shift management and operators in recovery of the plant from frequently experienced or probable plant upset conditions, loss of key plant/system components and events.
- 4.1.8 Improve the rigor and function of the Document Control System so that all documents in use are the most current revision. Ensure that all SOPs, Contingency Procedures and Non Normal Procedures in the Control Room are the latest revision as a procedural restart requirement for the DFS and PAS systems.
- 4.1.9 Insert a caution in the DFS operating procedure against using the scrubber tower mist eliminator pad spray to add make up water during high flow conditions to prevent moisture carryover. -
- 4.1.10 Develop, implement, and train all personnel in the use of a clearly defined, hierarchical listing of procedures. Reference this hierarchy of documents in all procedures as appropriate.
- 4.1.11 Track correction progress on corrective action determined as a result of event investigations by using the existing Deficiency Reporting (DR) tracking system. Have existing PLL staff review the PLL and CDOM and provide input to the DR system to track review and/or implementation of applicable findings using corrective actions within the DR system. Involve QA and Safety personnel in validating corrective action where appropriate.
- 4.2 Training**
 - 4.2.1 Procure and install a DFS furnace and PAS system training simulator to ensure the on site capability to conduct comprehensive site specific DFS Furnace and PAS systems training in both normal and non normal conditions. The simulator should be capable of establishing probable non-normal and upset conditions and allow recovery from these upset conditions. Further the simulator should provide the capability to impose component malfunctions and failures and allow plant and equipment recovery actions.
 - 4.2.2 Review the Lessons Learned from this event with all shift operations personnel and line management in a seminar type approach. Include the Narrative Timeline, the notes from the taped discussion of the DFS furnace and PAS system diagram with annotated times and changing plant parameters and the system diagram itself in this training.
 - 4.2.3 Augment the General Managers current management oversight programs by increasing the participation of responsible line and functional managers for operation of the Chemical Agent Disposal Facility. The program should include monitoring visits to the

plant and control room to observe and evaluate the knowledge and proficiency level of plant operators, their management of the work load and plant status, use of procedures and procedural compliance with special emphasis on correcting the knowledge and operating deficiencies noted in this investigation. The visits should be both scheduled and random and frequently cover night and weekend shifts.

- 4.2.4 Ensure all line managers are current in the training and qualification certifications required for their positions as soon as practicable after assignment to enhance their plant knowledge.
 - 4.2.5 Provide special training for all operations personnel on new and revised procedures developed as a result of corrective action related to this event.
 - 4.2.6 Add a feature to the current training program to evaluate shift operators' level of knowledge of plant equipment, systems and their interrelated function and the operators' functional proficiency as an element of their biennial recertification, and, at least, mid way between biennial recertifications.
 - 4.2.7 Add a training program feature to formalize the structure of on-shift training. Include seminars on operations, formal lectures to reinforce the knowledge of plant fundamentals and operating dynamics and, finally, review of the lessons learned from this and other plant events and upsets and related pertinent PLL program Lessons Learned. Reviews of pertinent TOCDF Plant Lessons learned and PLL Lessons Learned should be included during refresher training as well as on shift training periodically and following each event.
- 4.3 Engineering Equipment and Systems**
- 4.3.1 Install an effective means to promptly isolate the kiln from the after burner as a barrier to mitigate potential agent vapors entering the DFS/PAS from the ECR. This should be able to be manually operated remotely from the DSF Operators computerized control console and have two states, either fully open or fully closed.
 - 4.3.2 Replace the current Kurz flow measurement device and system with a system that is not affected by water. Alternatively, acquire a redundant means of measuring flow and providing protective system features with other flow measurement devices currently installed in the system (such as the refractory ring).
 - 4.3.3 Provide an engineering solution which ensures that residence time for the flue gases is not reduced below the 2 second alarm point without the kiln isolation valve closed.
 - 4.3.4 Provide a lighted and interactive furnace system schematic on a large display conveniently available to the CRO that shows major components and control status or a single screen display on the operators CRO's console showing major components, their controls, and measured parameters and their status.



- 4.3.5 Modify the Scrubber Tower Clean Liquor Re-Circulation system to improve the efficiency of the system and provide sufficient make up feed through the re-circulation system so that required sump levels can be maintained without excessive operator intervention and moisture carry over through use of the mist elimination pad spray process water feed makeup feed.
- 4.3.6 Conduct a study to determine the relationship between residence time and kiln and Afterburner temperature to ensure total agent vapor incineration. Prepare an appropriate guide for Control Room Operators, Control Supervisors and Plant Shift Managers.
- 4.3.7 Modify the ACAMS 702 alarm and sensing system so that caustic moisture carry over does not impair or delay its proper and timely function.
- 4.3.8 Determine if it is reasonable to upgrade the DFS and PAS control systems to automatically return the system to normal operating conditions following an upset or establishment of a non-normal condition.
- 4.3.9 Modify the DFS furnace feed chute to eliminate the need to clean out the chute manually.
- 4.4 **EG&G Corporate**
 - 4.4.1 EG&G Corporate should provide a team experienced in complex plant operations to review the status of corrective action on a periodic basis. This team will monitor and evaluate operators conducting plant operations as well as review training, procedures, technical documentation and document control.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

2326

- PAS 701C alarmed at 0.67 ASC.
- Control Room Supervisor notified.
- Plant Shift Manager notified.
- Shift Safety Representative notified.
- Shift Environmental Representative notified.
- Sounded Agent Alarm and masked the site.

2327

- QASAS notified.
- EOC notified.
- Monitoring Lead notified.

2328

- PAS 701A alarmed at 1.57 ASC.

2329

- PAS 701C at 1.32 ASC.
- Preliminary classification made as AL 1.

2331

- PAS701A at 2.52 ASC.
- Monitoring updated on status.
- Perimeter lights activated.

2332

- PAS701C at 1.88 ASC.

2334

- PAS701A at 2.84 ASC.

2335

- PAS701 at 2.30 ASC.

2337

- PAS701A at 3.24 ASC.

2338

- PAS701C at 2.90 ASC.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

2340

- PAS701A at 3.40 ASC.

2341

- PAS702 alarmed at 1.45 ASC (first time).
- PAS701C at 3.64 ASC.
- JT Thorpe sent to PMB Lunchroom.

2343

- PAS701A at 3.38 ASC.

2344

- PAS702 at 0.61 ASC.
- PAS701C at 2.06 ASC.

2346

- PAS701A at 3.38 ASC.

2347

- PAS702 at 0.69 ASC.
- PAS701C at 0.69 ASC.

2348

- JT Thorpe accounted for.

2349

- PAS701A at 0.37 ASC.

2350

- PAS702 at 0.75 ASC.
- PAS701C at 0.24 ASC.

2352

- PAS701A at 0.10 ASC – alarm cleared.
- Safety, Environmental and QASAS notified.

2353

- PAS702 at 0.65 ASC.
- PAS701C at 0.07 ASC – alarm cleared.
- Safety, Environmental and QASAS updated.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

2355

- EOC updated.

2356

- PAS702 at 0.55 ASC.

2359

- PAS702 at 0.40 ASC.

0002

- PAS702 at 0.28 ASC.

0005

- PAS702 at 0.23 ASC.

0008

- PAS702 at 0.18 ASC alarm cleared.

0011

- PAS702 at 0.13 ASC.

0014

- PAS702 at 0.11 QAC.

0017

- PAS702 at 0.09 ASC.

0018

- Unmasked the site.

0029

- PAS701B alarmed at 0.39 ASC.
- PAS702 alarmed at 0.86 ASC.
- Safety, Environmental and QASAS notified.

0030

- PAS701C alarmed at 0.56 ASC.
- EOC notified.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

0031

- PAS701B at 0.74 ASC.

0032

- PAS701C at 0.81 ASC.

0034

- PAS701B at 0.61 ASC.

0035

- PAS701C at 0.30 ASC.
- PAS702 at 0.31 ASC
- JT Thorpe at PMB Lunchroom.

0037

- PAS701B at 0.20 ASC.

0038

- PAS701C at 0.02 ASC alarmed cleared.
- PAS702 at 0.28 ASC.

0040

- PAS701B at 0.05 ASC alarm cleared.

0041

- PAS702 at 0.23 ASC.

0044

- PAS702 at 0.25 ASC.

0047

- PAS702 at 0.24 ASC.

0050

- PAS702 at 0.24 ASC.

0053

- PAS702 at 0.21 ASC.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

0056

- PAS702 at 0.18 ASC alarm cleared.

0057

- PAS701 DAAMS tube confirmed agent.

0059

- PAS702 at 0.17 ASC.

0102

- PAS702 at 0.15 ASC.

0103

- Plant Shift Manager re-classified event to AL 4.
- QASAS notified.

0104

- PAS702 at 0.11 ASC.

0107

- PAS702 at 0.09 ASC.
- Unmasked the site.

0108

- Environmental Compliance Manager notified.

0111

- Safety Manager notified.

0115

- DGM – Risk Management notified.

0131

- DGM – Plant Operations notified.

0138

- Operations Manager notified.

0230

- PAS701 DAAMS tube confirmed agent on 0028 alarm.



**APPENDIX A – NOTIFICATION TIMELINE FOR MAY 8th & 9th, 2000
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE
AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

0300

- DSHW notified – answering machine.

0400-0430

- DCD Civilian Executive Assistant on-site.
- PMCD Assistant Project Manager, Operations, Compliance and Monitoring on-site.
- EG&G DGM-Risk Management on-site.

0800

- DSHW notified via conference call with PMCD and EG&G.



APPENDIX B – ANALYTIC TECHNIQUE SYNOPSIS EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

Kepner-Tregoe (K-T) is a proprietary methodology for problem and decision analysis. This methodology was used to determine and document the direct and root causes, as well as to identify corrective actions, for the May 8 accident. K-T analysis forms a structured guide for the accident investigation. In complex events, the K-T process can be used to verify and document investigation logic.

Management Oversight and Risk Tree (MORT) is a comprehensive analytical procedure that provides a disciplined approach for determining the causes and contributing factors of an accident. The MORT logic diagram displays the structured set of interrelated safety program elements and concepts comprising the ideal management model. The universal logic diagram becomes a master "worksheet" for use in analyzing a specific accident. The MORT logic diagram is an idealized safety system model based upon fault tree analysis. In a "perfect" system, all components function in a manner that contributes to task achievement. In an imperfect system, some "fault" exists. Within the MORT system, an accident is defined as Barrier/Control inadequacy in which an unwanted flow of energy results in adverse consequences. MORT suggests that an accident is usually multifactorial in nature. It occurs because of lack of adequate barriers and/or controls upon the unwanted energy transfer. MORT logic was used as one tool to analyze the May 8 accident at TOCDF. Instead of a complete MORT analysis, the investigators used the MORT scheme to determine whether any significant factor was being omitted.



APPENDIX C – OPERATIONS PROCEDURES EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

1) INTRODUCTION

Operations procedures are written to provide specific direction for operating systems and equipment during normal and postulated abnormal and emergency conditions.

Operations procedures should provide appropriate direction to ensure that the facility is operated within its design basis and should be effectively used to support safe operation of the facility. Other methods of disseminating operational information include Operator Orders, and Operator Aids.

2) DISCUSSION

Procedures are a key factor affecting operator performance. Appropriate attention should be given to writing, reviewing, and monitoring operations procedures to ensure the content is technically correct and the wording and format are clear and. Although a complete description of a system or process is not needed, operations procedures should be sufficiently detailed to perform the required functions without direct supervision. Consistency in procedure format, content, and wording is essential to achieve a uniformly high standard of operator performance. Operators should not be expected to compensate for shortcomings in such procedures as poor format or confusing, inaccurate, or incomplete information. Instead, procedures should be written in such a way that they can be easily used without making mistakes.

During the course of operations, technical and operational requirements change and better ways of doing things develop. To ensure that procedures in use provide the best possible instructions for the activity involved, periodic review and feedback of information are essential. The facility policy on use of procedures should be clearly understood by all operators. Properly controlled and readily available procedures promote use and ensure that operational activities will be conducted in the manner intended.



APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

3) GUIDELINES

- a) Procedure Development. To ensure consistency among operations procedures, the methods for developing new procedures, including procedure formats, should be clearly defined. Administrative procedures and/or writers' guides should direct the development and review process for procedures.

Procedures should be developed for all anticipated operations, evolutions, tests, and abnormal or emergency situations. Annunciator/alarm response procedures that guide the operator in verifying abnormal conditions or changes in plant status and provide the appropriate corrective action should be developed for all alarm panels. All procedures should provide administrative and technical direction to conduct the intent of the procedure effectively. The extent of detail in a procedure should depend on the complexity of the task, the experience and training of the user(s), the frequency of performance, and the significance of the consequences of error.

Procedure preparation, verification, and validation should receive high-level attention. Qualifications for procedure writers should be considered, including operating organization and experience. Review, verification, and validation should be formalized for written and software procedures.

- b) Procedure Content. To provide uniformity in operations procedures, the content of procedures should conform to prescribed guidelines. The procedure aspects described below should be followed when developing operations procedures:
- (i) The scope and applicability of individual procedures should be readily apparent. Procedures with single-unit applicability should be distinctively identified to avoid confusion with sister-unit procedures. In addition, to enhance rapid retrieval, emergency procedures should be distinguishable from other procedures. Color coding could be used for these purposes.
 - (ii) Procedures should incorporate appropriate information from applicable source documents, such as the facility design documents, safety analysis documents, and vendor technical manuals.



APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

- (iii) Prerequisites and initial conditions should be detailed. Careful consideration should be given to the location of this information within the procedure in order to help ensure that the intent of the procedure is understood. In addition, any hoses, tools, or other temporary testing equipment should be verified operable, calibrated, or inspected and in good condition where possible, before implementing any test procedure, to ensure that they function as expected during the test. These verifications should be identified in the prerequisite section, with completion sign-offs required. "Hold" points (requiring independent verification and/or approval) should be clearly delineated.
- (iv) Definitions used in the procedure should be explained.
- (v) Procedures should be easily understood, and actions should be clearly stated.
- (vi) Procedures should contain only one action per step.
- (vii) Procedures should contain sufficient but not excessive detail. The skill level, experience, and training of the users should be considered.
- (viii) Warnings, notes, and cautions should be easily identifiable and should not contain action statements. The probability of missing an action step increases when it is included in a warning, note, or caution.
- (ix) Warnings and cautions should precede the step to which they apply. Warnings, notes, and cautions should appear on the same page as the step to which they apply. This ensures that operators are alerted to necessary information before performing a procedural step.
- (x) Procedures should be technically and administratively accurate (i.e., the instructions and information should be correct; referenced documents should be correctly identified; and necessary instructions should be present to guide the user when transferring between procedures).
- (xi) Individual sign-offs should be provided for selected critical steps. One sign-off should not be applied to more than one action.



APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

- (xii) Limits and/or tolerances for operating parameters should be specified and should be consistent with the readable accuracy of instrumentation. Operators should not be required to perform mental arithmetic to determine if a specified parameter is acceptable.
- (xiii) Acceptance criteria for surveillance or test procedures should be easily discerned, including tolerances and units. If calculations are needed to compare data to acceptance criteria, the calculations should be clearly explained.
- (xiv) Sequence of procedural steps should conform to the normal or expected operational sequence. Training on this sequence, reinforced with procedures that show the same sequence, will serve to improve operator performance by development of patterns of action that are more easily remembered.
- (xv) Procedures should be developed with consideration for the human-factor aspects of their intended use. For example, references to components should exactly match drawing and label-plate identifiers, units should be the same as those marked on applicable instrumentation, and charts and graphs should be easily read and interpreted. Important factors (such as operating limits, warnings, cautions, etc.) should be highlighted.
- (xvi) Emergency operating procedures should provide guidance in responding to single and multiple casualties.
- (xvii) Portions or steps of other procedures that are used or referred to when performing a procedure should be specifically identified within the procedure so that operators will not be confused when transferring between procedures.
- (xviii) Component or system shutdown and restoration requirements following shutdown or a surveillance or test activity should be specific and controlled by the procedure.

APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

- c) Procedure Changes and Revisions. Procedure changes and revisions are necessary to ensure that procedures reflect current operating practices and requirements. The review and approval process for each procedure change or revision should be documented. For the purpose of these guidelines, a "procedure change" refers to an on-the-spot change (whether for permanent or for one-time-only use). Procedure changes do not involve retyping or reissuing a procedure. "Procedure revisions" constitute a new, retyped edition of the procedure. Procedure changes and revisions should conform to the following practices:
- (i) Procedure changes intended for use more than one time should be documented in a location readily available for operator reference. To avoid the possibility of error, these changes should also be referenced in procedure copies used by operators.
 - (ii) Appropriate procedure changes and revisions should be initiated when procedure inadequacies or errors are noted.
 - (iii) Procedure revisions should be initiated when a change has been outstanding for an extended period (e.g., greater than 6 months) or when a procedure has been affected by several changes (e.g., more than five). All currently effective procedure changes should normally be incorporated when the procedure is revised.
 - (iv) Procedure revisions should be implemented concurrently with modifications. Procedure updates required by temporary modifications should be handled as procedure "change" and implemented concurrently with the temporary modification installation.
 - (v) Important information regarding changed or revised procedures should be communicated to appropriate operations personnel via the required reading system (Chapter XIV), a pre-shift briefing, or a similar method.
 - (vi) Documentation of the reason for key procedure steps should be maintained and reviewed when implementing changes or revisions that alter these steps. This practice is important to ensure that the reason for any step is not overlooked.
 - (vii) The review process should involve verification and validation of the procedure using walkthroughs or similar methods.



APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

- d) Procedure Approval. Operating procedures should be approved by the Plant Operations Manager. In addition, procedures that affect safety-related equipment and emergency procedures should be reviewed by the facility safety review committee or by another appropriate review mechanism. Procedure revisions should receive the same depth of review and level of approval as the initial versions. New and revised procedures should be approved prior to use.
- e) Procedure Review. New and revised operations procedures should be reviewed prior to issuance and at periodic intervals to ensure that the information and instructions are technically accurate and that appropriate human-factor considerations have been included. The frequency of subsequent reviews should be specified; it may vary with the type and complexity of the activity involved and with time as a given plant reaches operational maturity. Applicable procedures should be reviewed after an unusual incident (such as an accident, an unexpected transient, significant operator error, or equipment malfunction). During reviews, procedures should be compared to source documents to verify their accuracy. In addition, new procedures should be validated by walk-throughs in the facility or by operation on a facility-specific simulator to ensure workability.
- f) Procedure Availability. A controlled copy of all operations procedures should be maintained in the control area for operator reference, and selected controlled procedures should be maintained at other appropriate locations. For example, controlled procedures for facility shutdown from outside the control area should be maintained at the remote shutdown location(s). It may be desirable to have procedures for routine evolutions available at local work stations.

Working copies of controlled procedures should be available for use during evolutions. However, since these documents have only a limited lifespan, working copies should be controlled and a system should be in place to ensure that outdated procedures are not used by mistake and that working copies are replaced according to approved procedures. For example, uncontrolled working copies could be verified by comparison to a controlled copy prior to use.

Controlled annunciator response procedure information should be easily accessible to the operators responsible for responding to alarms. Some facilities can provide annunciator response procedures at local control panels. If this is not done, annunciator response procedures should be provided at an alternate location convenient to the equipment operator.

APPENDIX C – OPERATIONS PROCEDURES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

- g) Procedure Use. Facility operation should be conducted in accordance with applicable procedures that reflect the facility design basis. The requirements for use of procedures should be clearly defined and understood by all operators. If procedures are deficient, a procedure change should be initiated. In exception to this policy, operators may take whatever action is necessary during emergency conditions to place the facility in a safe condition, and to protect equipment, personnel, and public safety without first initiating a procedure change.

Operators should have procedures with them and follow them in a step-by-step manner when the procedures contain sign-offs for the various activities. In addition, procedures should be referenced during infrequent or unusual evolutions when the operator is not intimately familiar with the procedure requirements or when errors could cause significant adverse impact to the facility. Operators need not reference emergency procedures during the performance of immediate actions since these actions, are committed to memory; however, the emergency procedure immediate action instructions should be reviewed after the actions are performed, thus, verifying, that all required actions have been taken.

APPENDIX D – OPERATION ANALYSES
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE
CHEMICAL AGENT DISPOSAL FACILITY

DFS System Flow Rates - May 8-9, 2000

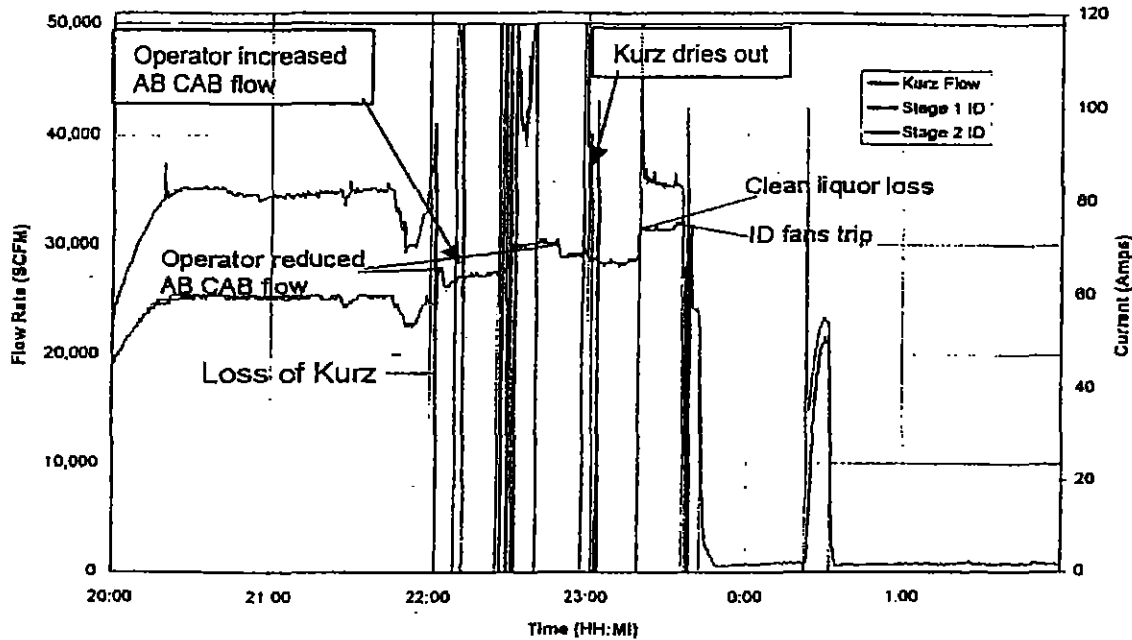


FIGURE 1.

Figure 1 depicts flow rate on May 8, 2000 starting at 2000 until 0200 the next morning. The ID fan current is also shown. The original intent of the memorandum OMM-005 was to establish a differential pressure between the ECR and the kiln to keep hot material from migrating into the ECR during DPE entry. To lower the pressure in the kiln, the operator increases flow through the system by opening the ID fan damper. He can do this by changing the kiln pressure controller setpoint, or by taking direct control of the ID damper. The amount of flow necessary to achieve the -1.5 in WC pressure in the kiln required almost double the flow of a normal operation, nearly 36,000 SCFM compared to about 18,000 SCFM earlier in the day. The increased flow had several consequences. Carryover from the scrubber to the demister increased leading to loss of liquor in the scrubber. In turn this led to a low sump alarm that prompted the operator to add process water as he had done before in other low sump situations. However, the high flow entrained additional process water and bathed the Kurz meter. It malfunctioned and the BMS secured fuel to the burners. High flow reduced residence time in the after burner below two seconds and also reduced pressure in the kiln. The loss of clean liquor at about 2320 had the effect of increasing ID fan current and drying out the Kurz meter. An interesting feature in figure 1 is that the ID fan current continued to increase while the Kurz meter was inoperative due most likely to the amount of moisture that was carried over to the fans. Also the effect of AB CAB operation on fan current during the failed purge attempt between 2229 and 2249 is clearly evident.

APPENDIX D – OPERATION ANALYSES

EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE CHEMICAL AGENT DISPOSAL FACILITY

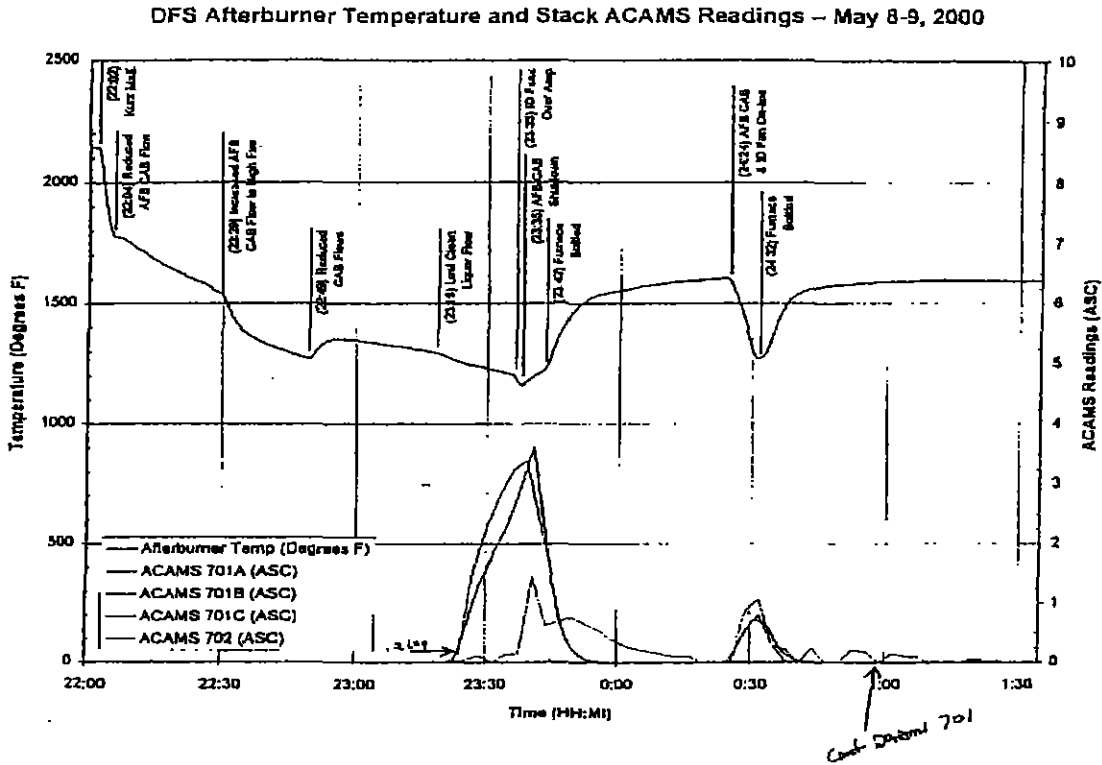


FIGURE 2.

Figure 2 depicts the after burner temperature as a function of time between 2200 and 0130. The stack and DFS ACAMS data are plotted against the same time period. Significant operator actions and events are identified at discrete times. The after burner temperature drops rapidly when burners are secured, then more slowly as AB CAB air is reduced. This marks the loss of the design engineered barrier to agent release, gas temperature above 2050 degrees Fahrenheit and residence at that temperature for at least two seconds. The failed restart effort is again obvious. When clean liquor is lost at about 2220, agent begins to exit the stack. The stack ACAMS sample the flue gases for three minutes then checks for agent. At about 2223, agent begins to register on the stack ACAMS and exceeds alarm levels after the next three minute read cycle. Levels climb until ID fans trip on overcurrent and the flow stops. The delay in the DFS ACAMS reading (702) was caused by caustic from carry over. The caustic was drawn into the ACAMS probe and neutralized agent in the air sample before it registered. As the agent flow continued, it finally overpowered the carry over caustic and began to register. The long tail on the plot for 702 was due to monitors challenging the ACAMS.

With the decision to relight the Afterburner, an ID fan is started at 0024 and one AB CAB is started. Agent is again drawn through the DFS and sent up the stack with the resultant ACAMS alarms. The ID fan is secured and flow stopped at about 0032. The ACAMS continues to draw agent out of the flue for 702 and the stack for 701 reading the presence of agent on a three minute cycle time until none remains.

Identifying the specific circumstances that allowed agent to exit the stack required a source of agent. ECR-B ACAMS readings while processing rockets on the day shift were often in excess of 4.0 MPL but were less than 0.4 MPL during the release. However, the residue from cleaning the strainers remained on the slide gate and was a significant source of agent vapor. The strength of the source term was apparently lost on the CRS who did not understand that 1 MPL is equivalent to 500 IDLH or 1,000,000 TWA. The room itself was a significant agent source.

APPENDIX D – OPERATION ANALYSES
EG&G INVESTIGATION INTO THE CHEMICAL AGENT DISCHARGE AT THE TOOELE
CHEMICAL AGENT DISPOSAL FACILITY

Pressure Difference and ACAMS Readings -- May 8-9, 2000

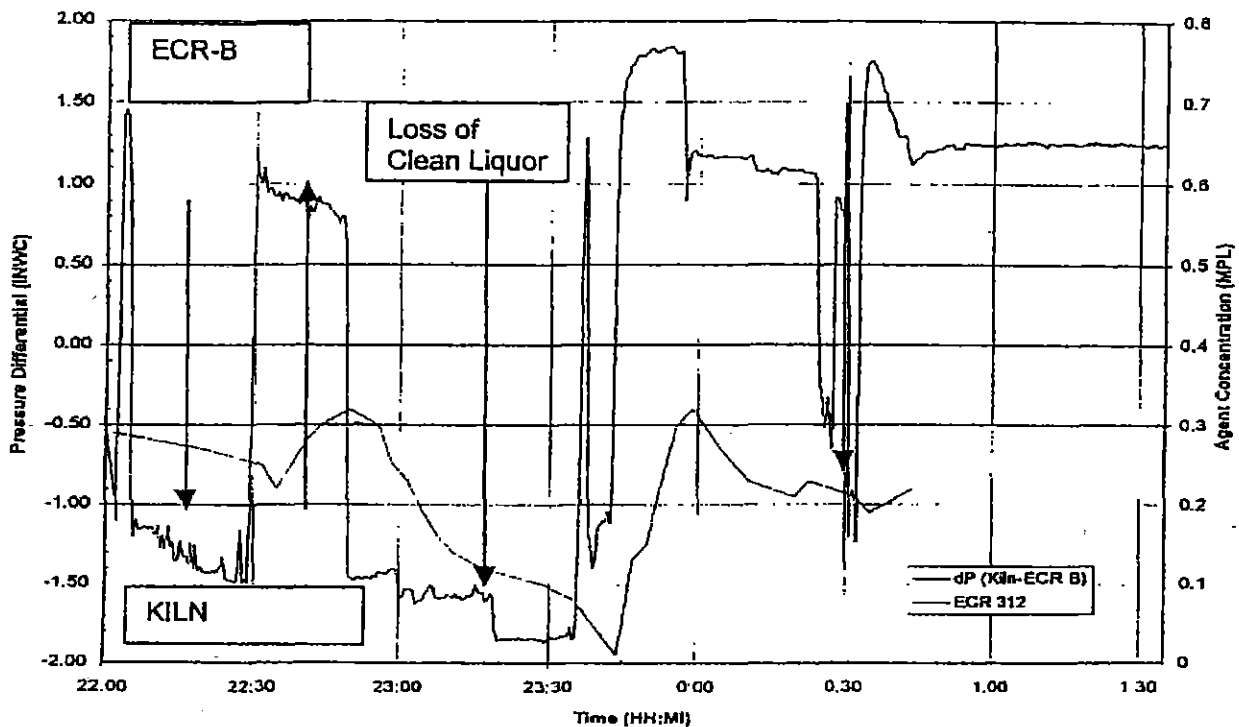


FIGURE 3.

Figure 3 plots the differential pressure between the kiln and the ECR-B for the same period as figure 2. The ECR ACAMS data is also depicted as well. When the differential pressure is negative, agent vapor flows from the ECR into the kiln around the gates and through the chute. When the pressure is positive, flue gases flow from the kiln toward the ECR up the chute. This differential appears to be very sensitive to AB CAB flow at this high flue gas flow rate. At 2230, the AB CAB flow is increased to purge for a relight attempt and the differential pressure shifts from -1.5 to +1.0, then returns to -1.5 when the AB CAB airflow is reduced at 2249. In this condition, agent vapor is drawn into the DFS from the ECR under very high flow conditions with no burners on line. Agent at some significant concentration gets through the kiln, after burner, quench tower, and is neutralized in the scrubber until clean liquor flow is secured by the operator. At that point, agent is drawn through the rest of the system and sent up the stack. Agent concentration in the ECR is significantly reduced when the differential pressure is negative consistent with removing agent from the room through the DFS chute. When the pressure is positive, agent is drawn through the ECR ventilation system past the ACAMS and the indicated concentration increases.



**ADDENDUM #1
TO
EG&G INVESTIGATION
INTO THE
CHEMICAL AGENT DISCHARGE
AT THE
TOOELE CHEMICAL AGENT DISPOSAL FACILITY**

May 15-26, 2000


John M. Kersh, Chairman
EG&G Investigation Team

Date: June 16, 2000



Since forwarding the report on June 9, 2000, additional information has been developed and some errors or needs for clarification have been noted; therefore, please make the following changes for the reasons listed and preceding each change.

Reason: The exact amount of chemical munitions GB Agent released has come under question and is being evaluated and recalculated by independent outside experts since standard flows, temperatures and pressures instead of actual flows temperatures and pressures were used in the initial calculation. The General Manager of EG&G Defense Materials has prepared a special letter addressing the issue. The release quantity will not be published until the evaluation and recalculations are complete.

Change:

Page 3, first paragraph, first line; delete "18 milligrams of".

Page 5, Introduction 1.0 Background, first paragraph, first line; delete "approximately 18 milligrams of".

Page 22, 2.9 Safety, Change the first paragraph to read "An engineering analysis to determine the amount of agent released was performed using ACAMS 701 readings on May 8 from 23:26 to 23:52 and on May 9 from 00:28 to 00:56. The quantity determined has been questioned since its calculation was based on standard rather than actual flows, temperatures and pressures. The quantity is being evaluated and recalculated by independent outside experts. ACAMS 701 C. readings of 3.63 and 0.81 "Allowed Stack Concentration (ASC)" will be used respectively for the calculations in the two time periods involved. The release quantity will not be published until the evaluation and recalculations are complete."

Reason: Correct Technical Information and Nomenclature.

Change:

Page 3, third paragraph, third line: change "250" to "175" and "separator" to "scrubber".



Reason: The high frequency of ACAMS alarms tended make operators and supervisors think the alarms were false.

Change:

Page 16, second paragraph from the top of the page. Delete the paragraph and substitute the paragraph below:

"In the 96 days from January 1, 2000 to April 5, 2000, there were 197 ACAMS alarms, and 80 of these were false positive alarms. The period between September 1999 and December 1999 had an even higher rate of ACAMS alarms. Although the majority of these alarms were due to equipment malfunction, testing or training, when taken together with the false positive alarms, they tend to condition the operators and supervisors to expect the alarm to be in error. The report from the monitor who evaluated the first 701 ACAMS alarm to the CRS was misinterpreted by the CRS who considered that the report confirmed a typical, false alarm."

Reason: To clarify the statements on the control room teams' required reading and the position of the Operations Supervisor, who is not a member of the control room team, and his required reading.

Change:

Page 17, first paragraph at the top of the page; delete the a current paragraph and insert the paragraph below:

"Further, each member of the control room team was current in required reading. The Operations Supervisor is not part of the control room team, but was responsible for the DPE entry into ECR associated with the DFS and his required reading included the DFS SOP. The Operations Supervisor had not read SOP-004 Revision 4 Change 0 or SOP-004 Revision 4 Change 1. Accordingly, the Operations Supervisor was not aware of any impact on his DPE entry of those changes to the DFS SOP."

A handwritten signature in black ink, appearing to be 'J. Smith' or similar, written over the page number.



Reason: To clarify paragraph 3.1.28 concerning the lessons learned program and investigation issue tracking and closure.

Change:

Page 28, paragraph 3.1.28; delete the current paragraph and add the paragraph below:

Two procedures, PRP-MG-013, and PRP-MG-014 specify requirements for reporting, performing investigations and tracking corrective actions for all events on the site. A separate procedure, PRP-SA-002, Accident Investigation and Recording, also requires investigation reporting and corrective action tracking. The current practice is to use both procedures and two separate reporting, investigating and tracking systems. This increases the risk of not adequately reporting, investigating and following up on all corrective actions from events because of the multiple tracking and closure systems. In addition, there is no documented evidence that lessons learned from either the Chemical Demilitarization Operations Manual (CDOM) or the Program Lessons Learned (PLL) have been implemented at TOCDF. Both programs have issues/items that have a direct bearing on this event. There are two documents that govern the Programmatic Lessons Learned at the site, the Site Programmatic Lessons Learned Program Plan (PMCD document) and the Programmatic Lessons Learned Implementation Plan (EG-065, Rev 2). Both documents contain specific lessons learned reports. Further, a review of the lessons learned identified several that are directly applicable to this agent release event and would have mitigated or possibly even prevented the event. Accordingly, the conclusion is that these lessons learned and their inherent preventive measures have not been effectively implemented in the training program in formal classroom training or in on shift training at the TOCDF."

Reason: Frequent false positive and other ACAMS alarms due to maintenance, training, testing, etc. have tended to make operators and supervisors hesitant to believe the alarms.

Change:

Page 35; add to recommendations:

- 4.3.10 Conduct a study, locate or develop and provide a chemical munitions agent sensing and alarm system that will experience significantly fewer false positives and be just as sensitive to detecting agent concentrations.



DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION
ABERDEEN PROVING GROUND, MARYLAND 21010-5401

ND

07-05-00 P03:56 IN

00.02686 CC

July 5, 2000

REPLY TO
ATTENTION OF

Tooele Chemical Agent
Disposal Facility

PM-00545

SUBJECT: Department of the Army, Office of the Assistant Secretary,
Deputy Director of Army Safety, Investigation Board Report
for the Tooele Chemical Agent Disposal Facility (TOCDF),
Tooele, Utah concerning the May 8, 2000 Common Stack Alarm
Occurrence

Mr. Dennis Downs
Utah Department of Environmental Quality
Division of Solid and Hazardous Waste
288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116-0690

Dear Mr. Downs:

The purpose of this correspondence is to provide the informal
15-6 Investigation by the Department of the Army, Office of the
Assistant Secretary, Deputy Director of Army Safety, for the May 8,
2000 Common Stack Alarm at the Tooele Chemical Agent Disposal Facility
(TOCDF), dated June 30, 2000.

The enclosed report addresses in detail the findings and
recommendations from the investigation conducted between 11 and 18 May
2000 at the TOCDF.

Your technical point of contact in this matter is Mr. J. David
Jackson at (435) 833-7438.

Sincerely,

James F. Colburn
EG&G Defense Materials
*CERTIFICATION STATEMENT

J. David Jackson
TOCDF Site Project Manager
*CERTIFICATION STATEMENT

John Todd
Deseret Chemical Depot

Enclosure

Copies Furnished: w/o Encls

Joe Stang
Pete Davis
COL Bruce E. Pate
Harold Oliver
Mike Saupe
File

*I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED 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.



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
INSTALLATIONS AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

JUN 30 2000

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY
(CHEMICAL DEMILITARIZATION PROGRAM)
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION

SUBJECT: Investigation Board Report – Tooele Chemical Agent Disposal Facility
(TOCDF), Tooele, Utah

The subject report concerning the May 8, 2000, common stack alarm occurrence at TOCDF is provided for your use and release in support of improving chemical agent disposal safety. The U.S. Army Safety Center is designated the custodian of record for this report and will address any future FOIA requests.

Request the Program Manager for Chemical Demilitarization (PMCD) provide this office and the Director of Army Safety NLT August 4, 2000, the PMCD Implementation plan used and actions taken in addressing the findings and recommendations of this report.

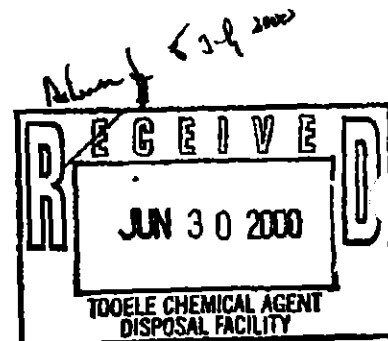
My point of contact is Mr. Gary W. Abrisz, 697-0440.

Ray Fatz
Raymond J. Fatz

Deputy Assistant Secretary of the Army
(Environment, Safety and Occupational Health)
OASA(I&E)

Enclosure

cf:
DACS-SF
DAMO-SS



INFORMAL 15-6 INVESTIGATION
OF THE
TOOELE CHEMICAL AGENT DISPOSAL FACILITY (TOCDF)
COMMON STACK RELEASE
8-9 MAY 2000

Investigating Officer:



KEVIN CONNORS
COL, IN
Deputy Director of Army Safety

EXECUTIVE SUMMARY

On the night of 8 May to 9 May 2000, nerve agent GB was detected at the Tooele Chemical Agent Disposal Facility (TOCDF) common stack on two separate occasions. The first occasion began at 2326 hours. The peak concentration during this event was 3.64 Allowable Stack Concentration (ASC). The second occasion began at 0028 hours. The final agent alarm cleared at 0056 hours. All the Deactivation Furnace System (DFS) duct and common stack alarms were confirmed by the analysis of the Depot Area Air Monitoring System (DAAMS) tubes.

On Tuesday, 9 May 2000, the decision was made to investigate this event. COL Kevin Connors, Deputy Director of Army Safety, assumed the role of I5-6 investigating officer on 11 May 2000. Technical advisors included personnel from the U.S. Army Nuclear and Chemical Agency (USANCA), U.S. Army Technical Center for Explosives Safety, Office of the Program Manager for Chemical Demilitarization (PMCD), Project Manager for Chemical Stockpile Disposal (PMCS), Desert Chemical Depot (DCD), and General Physics Corporation (GP):

Mr. James Walters	USANCA, Chemical Safety
Mr. Kurt Clausen	USATCES, Chemical Safety
Mr. Steve Blunk	PMCD, Chemical Engineer/Safety
Mr. Joe Stang	PMCD, Environmental Compliance
Mr. Rich Newton	PMCD, Environmental Monitoring
Mr. Nick Stamatakis	PMCD, Quality Assurance
Mr. Pete Davis	PMCS, Operations Team
Mr. Lloyd Laycock	DCD, Environmental
Mr. Andy Garcia	DCD, Security
Mr. Craig Adams	GP, Process Controls

Two scientists, Dr. John Liddle and Mr. John Decker of the Centers for Disease Control and Prevention (CDC), partnered with the investigation team: the CDC report has been prepared and will be released separately from this report.

The investigation team determined that, due to an extraordinary sequence of events and circumstances, GB agent was emitted from the TOCDF common stack. Computer analysis indicated that there were no potential health effects to any human who was further than eight feet from the common stack; CDC has released a memo presenting preliminary findings that there was no impact to the health of TOCDF workers or the general public due to this accident.

The investigation determined the event was not caused by negligence or an intentional act. The investigation concluded that plant activities, human error, and equipment malfunction caused a DFS upset. The DFS upset caused excessively negative pressures and excessively high flue gas flow velocities in the DFS kiln, afterburner, and pollution abatement system that enabled agent vapors to be drawn into the DFS from the Explosives Containment Room (ECR) B and ultimately exhausted from the common stack.

The report makes recommendations intended to prevent recurrence in mechanical, procedural, and management areas.

REPORT OF PROCEEDINGS BY INVESTIGATING OFFICER/BOARD OF OFFICERS

For use of this form, see AR 15-6; the proponent agency is OTJAG.

IF MORE SPACE IS REQUIRED IN FILLING OUT ANY PORTION OF THIS FORM, ATTACH ADDITIONAL SHEETS

SECTION I - APPOINTMENT

Appointed by Mr. Raymond Fatz, Deputy Assistant Secretary of the Army, Environment, Safety and Occupational Health
(Appointing authority)

on 9 May 2000 (Date) (Attach inclosure 1: Letter of appointment or summary of oral appointment data.) (See para 3-15, AR 15-6.)

SECTION II - SESSIONS

The (investigation) (board) commenced at Tooele Chemical Agent Disposal Facility, Tooele, Utah at 0730
(Place) (Time)

on 11 May 2000 (Date) (If a formal board met for more than one session, check here . Indicate in an inclosure the time each session began and ended, the place, persons present and absent, and explanation of absences, if any.) The following persons (members, respondents, counsel) were present: (After each name, indicate capacity, e.g., President, Recorder, Member, Legal Advisor.)

- COL Kevin Connors - Investigating Officer
- Technical Advisors:
- Mr. James Walters - USANCA
- Mr. Kurt Clasen - USATCES - Chemical Safety
- Mr. Steve Blunk - PMCD - Chem Eng/Safety
- Mr. Pete Davis - PMCD - Operations Team
- Mr. Joe Stang - PMCD - Environmental Compliance
- Mr. Rich Newton - PMCD - Environmental Monitoring
- Mr. Nick Stamatakis - PMCD - Quality Assurance
- Mr. Craig Adams - General Physics - Process Controls
- Mr. Lloyd Laycock - DCD - Environmental
- Mr. Andy Garcia - DCD - Security

The following persons (members, respondents, counsel) were absent: (Include brief explanation of each absence.) (See paras 5-2 and 5-8a, AR 15-6.)
None

The (investigating officer) (board) finished gathering/hearing evidence at 1700 on 18 May 2000
(Time) (Date)

and completed findings and recommendations at 1200 on 6 June 2000
(Time) (Date)

SECTION III - CHECKLIST FOR PROCEEDINGS

A. COMPLETE IN ALL CASES

		YES	NO	NA
1	Inclosures (para 3-15, AR 15-6)			
	Are the following inclosed and numbered consecutively with Roman numerals: (Attached in order listed)			
	a. The letter of appointment or a summary of oral appointment data?	X		
	b. Copy of notice to respondent, if any? (See item 9, below)			X
	c. Other correspondence with respondents or counsel, if any?			X
	d. All other written communications to or from the appointing authority?			X
	e. Privacy Act Statements (Certificate, if statement provided orally)?			X
	f. Explanation by the investigating officer or board of any unusual delays, difficulties, irregularities, or other problems encountered (e.g., absence of material witnesses)?			X
	g. Information as to sessions of a formal board not included on page 1 of this report?			X
	h. Any other significant papers (other than evidence) relating to administrative aspects of the investigation or board?	X		

FOOTNOTES: 1 Explain all negative answers on an attached sheet.
2 Use of the NA column constitutes a positive representation that the circumstances described in the question did not occur in this investigation or board.

		YES	NO	NA
2	Exhibits (para 3-16, AR 15-6)			
	a. Are all items offered (whether or not received) or considered as evidence individually numbered or lettered as exhibits and attached to this report?	X		
	b. Is an index of all exhibits offered to or considered by investigating officer or board attached before the first exhibit?	X		
	c. Has the testimony/statement of each witness been recorded verbatim or been reduced to written form and attached as an exhibit?		X	
	d. Are copies, descriptions, or depictions (if submitted for real or documentary evidence) properly authenticated and is the location of the original evidence indicated?	X		
	e. Are descriptions or diagrams included of locations visited by the investigating officer or board (para 3-6b, AR 15-6)?	X		
	f. Is each written stipulation attached as an exhibit and is each oral stipulation either reduced to writing and made an exhibit or recorded in a verbatim record?			X
	g. If official notice of any matter was taken over the objection of a respondent or counsel, is a statement of the matter of which official notice was taken attached as an exhibit (para 3-16d, AR 15-6)?			X
3	Was a quorum present when the board voted on findings and recommendations (paras 4-1 and 5-2b, AR 15-6)?	X		
B. COMPLETE ONLY FOR FORMAL BOARD PROCEEDINGS (Chapter 5, AR 15-6)				
4	At the initial session, did the recorder read, or determine that all participants had read, the letter of appointment (para 5-3b, AR 15-6)?			
5	Was a quorum present at every session of the board (para 5-2b, AR 15-6)?			
6	Was each absence of any member properly excused (para 5-2a, AR 15-6)?			
7	Were members, witnesses, reporter, and interpreter sworn, if required (para 3-1, AR 15-6)?			
8	If any members who voted on findings or recommendations were not present when the board received some evidence, does the inclosure describe how they familiarized themselves with that evidence (para 5-2d, AR 15-6)?			
C. COMPLETE ONLY IF RESPONDENT WAS DESIGNATED (Section II, Chapter 5, AR 15-6)				
9	Notice to respondents (para 5-5, AR 15-6):			
	a. Is the method and date of delivery to the respondent indicated on each letter of notification?			
	b. Was the date of delivery at least five working days prior to the first session of the board?			
	c. Does each letter of notification indicate -			
	(1) the date, hour, and place of the first session of the board concerning that respondent?			
	(2) the matter to be investigated, including specific allegations against the respondent, if any?			
	(3) the respondent's rights with regard to counsel?			
	(4) the name and address of each witness expected to be called by the recorder?			
	(5) the respondent's right to be present, present evidence, and call witnesses?			
	d. Was the respondent provided a copy of all unclassified documents in the case file?			
	e. If there were relevant classified materials, were the respondent and his counsel given access and an opportunity to examine them?			
10	If any respondent was designated after the proceedings began (or otherwise was absent during part of the proceedings):			
	a. Was he properly notified (para 5-5, AR 15-6)?			
	b. Was record of proceedings and evidence received in his absence made available for examination by him and his counsel (para 5-4c, AR 15-6)?			
11	Counsel (para 5-6, AR 15-6):			
	a. Was each respondent represented by counsel?			
	Name and business address of counsel:			
	(If counsel is a lawyer, check here <input type="checkbox"/>)			
	b. Was respondent's counsel present at all open sessions of the board relating to that respondent?			
	c. If military counsel was requested but not made available, is a copy (or, if oral, a summary) of the request and the action taken on it included in the report (para 5-6b, AR 15-6)?			
12	If the respondent challenged the legal advisor or any voting member for lack of impartiality (para 5-7, AR 15-6):			
	a. Was the challenge properly denied and by the appropriate officer?			
	b. Did each member successfully challenged cease to participate in the proceedings?			
13	Was the respondent given an opportunity to (para 5-8a, AR 15-6):			
	a. Be present with his counsel at all open sessions of the board which deal with any matter which concerns that respondent?			
	b. Examine and object to the introduction of real and documentary evidence, including written statements?			
	c. Object to the testimony of witnesses and cross-examine witnesses other than his own?			
	d. Call witnesses and otherwise introduce evidence?			
	e. Testify as a witness?			
	f. Make or have his counsel make a final statement or argument (para 5-9, AR 15-6)?			
14	If requested, did the recorder assist the respondent in obtaining evidence in possession of the Government and in arranging for the presence of witnesses (para 5-8b, AR 15-6)?			
15	Are all of the respondent's requests and objections which were denied indicated in the report of proceedings or in an inclosure or exhibit to it (para 5-11, AR 15-6)?			

FOOTNOTES: 1) Explain all negative answers on an attached sheet.
2) Use of the N/A column constitutes a positive representation that the circumstances described in the question did not occur in this investigation or board.

SECTION IV - FINDINGS (para 3-10, AR 15-6)

The (investigating officer) (board), having carefully considered the evidence, finds:
See Attached Narrative, consisting of 31 pages. Findings are interspersed with Recommendations. See below.

SECTION V - RECOMMENDATIONS (para 3-11, AR 15-6)

In view of the above findings, the (investigating officer) (board) recommends:
See Findings and Recommendations, consisting of 7 pages.

SECTION VI - AUTHENTICATION (para 3-17, AR 15-6)

THIS REPORT OF PROCEEDINGS IS COMPLETE AND ACCURATE. (If any voting member or the recorder fails to sign here or in Section VII below, indicate the reason in the space where his signature should appear.)

CW3 Couvers

(Recorder)

COL Kevin Connors

(Investigating Officer) (President)

(Member)

(Member)

(Member)

(Member)

SECTION VII - MINORITY REPORT (para 3-13, AR 15-6)

To the extent indicated in Inclosure _____, the undersigned do(es) not concur in the findings and recommendations of the board. (In the inclosure, identify by number each finding and/or recommendation in which the dissenting member(s) do(es) not concur. State the reasons for disagreement. Additional/substitute findings and/or recommendations may be included in the inclosure.)

(Member)

(Member)

SECTION VIII - ACTION BY APPOINTING AUTHORITY (para 2-3, AR 15-6)

The findings and recommendations of the (investigating officer) (board) are (approved) (disapproved) (approved with following exceptions/ subrinations). (If the appointing authority returns the proceedings to the investigating officer or board for further proceedings or corrective action, attach that correspondence (or a summary, if oral) as a numbered inclosure.)



DEPARTMENT OF THE ARMY
UNITED STATES ARMY SAFETY CENTER
FORT RUCKER, ALABAMA 36362-9363

REPLY TO
ATTENTION OF

CSSC-JA

19 Jun 00

MEMORANDUM FOR RECORD

SUBJECT: Legal Review of the Investigation into the 8 May 2000 Common Stack Release at Tooele Chemical Agent Disposal Facility

1. I have reviewed the subject report and determined that it complies with requirements of AR 15-6. Sufficient evidence exists to support the findings by a preponderance of the evidence. The recommendations are consistent with the findings.
2. I note one error or omission but find that it is harmless. AR 15-6, para. 3-7.c(5) states that direct testimony of witnesses is preferable. The report does not have direct testimony through sworn statements or transcripts. Rather, it has Exhibit M, a compilation of the evidence provided by multiple witnesses. It does not attribute any particular statement to any particular witness. Since AR 15-6 permits the investigating officer to consider previous statements on factual issues, COL Connors was in his authority to capture the factual information garnered from the TOCDF employees and use it in the preparation of his report. Since the information garnered from TOCDF employees was obtained under the provisions of AR 385-40 promises of confidentiality, he did not include direct testimony in the report. This omission did not denigrate the sufficiency of the evidence to support the findings and recommendations.
3. No appointment order was prepared but a summary of the appointment instructions is provided in the 5 Jun 00 MFR contained in the report.
4. POC is the undersigned, DSN 558-2924.

SIGNED

CYNTHIA A. GLEISBERG
LTC, JA
Command Judge Advocate

**INFORMAL 15-6 INVESTIGATION OF THE TOCDF
COMMON STACK RELEASE,
8-9 MAY 2000**

INCLUDED

Table of Contents

Narrative	1
Analysis	6
Findings & Recommendations	25
Glossary	
EXHIBIT A: Time Line	
EXHIBIT B: Chemical Event Report & Supplement	
EXHIBIT C: Weather Data	
EXHIBIT D: MSDS	
EXHIBIT E: Agent Transport Modeling	
EXHIBIT F: Maps & Area Diagrams	
EXHIBIT G: Monitoring Data	
1. ACAMS Trend Report	
2. Graph ACAMS vs. Time	
EXHIBIT H: Plan for Non-Normal Operating Conditions, DFS-011-01	
EXHIBIT I: Non-Normal Development, Revision and Deletion, PRP-MG-010	
EXHIBIT J: Pre-Entry Checklist	
EXHIBIT K: Process Diagrams	
1. DFS Schematic	
2. DFS	
3. DFS Cyclone & Afterburner	
4. PAS	
EXHIBIT L: ACAMS Maintenance	

**INFORMAL 15-6 INVESTIGATION OF THE TOCDF
COMMON STACK RELEASE,
8-9 MAY 2000**

Table of Contents (Cont'd)

EXHIBIT M: Summary of Interviews

EXHIBIT N: Photographs

1. M56 Warhead/M441 Shipping & Firing Tube
2. Ground Level View of TOCDF
3. DFS Kiln (UMCDF)
4. DFS Feed Chute (UMCDF)
5. Common Stack
6. Common Stack
7. DFS Afterburner
8. Flue Gas Flow Meter (Installed)
9. Flue Gas Flow Meter Panel
10. Flue Gas Flow Meter Panel (Open)
11. Common Stack Monitoring House (Exterior)
12. Common Stack Monitoring House (Interior)
13. Common Stack Monitoring House (Interior)
14. ACAMS Unit
15. DAAMS Station

EXHIBIT O: CDC Letter – Expected Health Effects

EXHIBIT P: Process Data

EXHIBIT Q: TE-SOP-004 Approval Sheets

EXHIBIT R: DRAFT Occurrence Report, DFS Cyclone Bin Enclosure Incident of 30
April 2000, Extract

EXHIBIT S: Temporary Change DFS-0112

EXHIBIT T: Work Order # 00-0000061

**INFORMAL 15-6 INVESTIGATION OF THE TOCDF
COMMON STACK RELEASE,
8-9 MAY 2000**

I. NARRATIVE

A. Background. The use of chemical weapons in World War I and the subsequent buildup of these chemical stockpiles by potentially hostile nations prompted the United States (U.S.) to develop and maintain its own chemical stockpile deterrent. In 1975, the U.S. ratified the 1925 Geneva Protocol, which prohibits the use of chemical weapons. Several nations, to include the United States, ratified the Treaty with a reservation that allowed retaliation in response to chemical use. Since U.S. ratification in 1975, the U.S. has continued to work for an international ban on manufacturing, stockpiling or using chemical weapons.

In 1985, Congress passed Public Law 99-145 initiating the Chemical Stockpile Disposal Program (CSDP) to eliminate the unitary chemical stockpile, starting with an emphasis on disposal of M55 rockets, a particularly hazardous munition. The program was expanded to treat the entire stockpile and led to the development of the current baseline incineration system. In 1992, after setting several intermediate goals and dates, Congress enacted Public Law 102-484 directing the Army to dispose of the entire unitary chemical warfare agent and munitions stockpile by 31 December 2004.

B. Facility Description. The Tooele Chemical Agent Disposal Facility (TOCDF) is located on Deseret Chemical Depot (DCD) (EXHIBIT F) in Tooele, Utah. The facility is designed to dispose of 44.5 percent of the nation's original stockpile of chemical weapons. TOCDF is the first chemical weapons disposal facility built within the continental U.S.

TOCDF incorporates systems originally tested and used at the Chemical Agent Munitions Disposal System (CAMDS), also located at the depot. These systems were first used on an industrial scale at the Army's Johnston Atoll Chemical Agent Disposal System (JACADS) in the Pacific Ocean. JACADS was the first integrated facility built to dispose of chemical weapons.

The contract to build and operate TOCDF was awarded to EG&G Defense Materials, Inc., of Wellesley, Massachusetts. Construction of the plant began in October 1989 under a subcontract to Morrison-Knudsen of Boise, Idaho. Disposal operations by EG&G, began in August 1996. Operations at TOCDF are scheduled to be completed in the year 2004. At that time, federal law requires the facility to be closed.

The facility staff and government personnel equal more than 700 employees during operations. Prior to working at the facility, operators undergo extensive specialized training at the Army's Chemical Demilitarization Training Facility (CDTF) at Aberdeen Proving Ground, Maryland. This training ensures that all workers have the skills and knowledge to safely operate and maintain the facility.

C. Event History.

Note: Various exhibits apply to the Event History. It is not always possible to associate a give statement with one exhibit. When an exhibit is directly referred to, it will be noted.

1. Pre Accident. The TOCDF was processing energetic M360 projectiles, non-energetic M360 projectiles, M56 warheads and M55 rockets. All of these munitions are GB filled. Due to a scheduled maintenance outage on the Liquid Incinerator (LIC) #2 and the Metal Parts Furnace (MPF), the facility had stopped the processing of all munition types except the M56 warheads. The facility had two of the four furnaces in operation. The Deactivation Furnace System (DFS) was processing the M56 warheads and the LIC # 1 was processing Spent Decontamination Solution (SDS). All other systems were operational and the facility was within the Limiting Conditions of Operation (LCO).

On 8 May 2000, C team, working the day shift, was processing M56 warheads in the DFS and SDS in LIC #1. Towards the end of the shift (at approximately 1600 hours) the lower tipping valve on the DFS was "sticking." (EXHIBIT A-M) Processing was stopped to inspect and determine the cause of the problem. At approximately 1800 hours, A team relieved C team and the problem with the lower tipping valve was briefed to the oncoming shift. The A team DFS Control Room Operator (CRO) obtained a briefing on the DFS status and assumed control of the DFS. The DFS chute sprays were on at the time of the operator change.

An entry into the Explosive Containment Room (ECR) B was prepared to perform a water wash down of the DFS feed chute to correct the sticking lower tipping valve. The non-normal procedure used to perform the water wash down was briefed during the pre-entry meeting. The Entry CRO attended this meeting and handed a copy of the procedure to the DFS CRO.

The two-man entry into ECR B was performed in Demilitarization Protective Ensemble (DPE) level of dress. The entry was being controlled by the Entry CRO. The entrants entered the ECR at approximately 2010 hours and removed the protective shroud around the upper feed gate. The entrants then egressed the ECR. The DFS CRO established a negative pressure in the kiln in accordance with the Non-Normal Operating Procedure (NNOP) DFS-011-01. (EXHIBIT H) A NNOP is prepared at TOCDF to document the procedural steps, safety, environmental and special equipment requirements for operations and jobs that are performed on a one time or infrequent basis. The DFS CRO opened the upper feed gate and the lower tipping valve. The entrants reentered the ECR to inspect the lower tipping valve. At this time, the material causing the lower tipping valve to stick had already been dislodged. The entrants reported seeing the glow of burning embers at the bottom of the feed chute. The area around the lower tipping valve did, however, have some buildup of moist fiberglass and other powdery material. The entrants prepared to use the water lance to "power-wash" the debris. The hose failed due to a malfunctioning ball valve on the water line to the lance. The entrants egressed the ECR and the DFS CRO closed the lower tipping valve. The entrants replaced the ball valve to the water lance.

The DFS CRO reopened the lower tipping valve and the entrants returned to the ECR. The entrants attempted to use the droplight in the ECR to get a better view of the area to be cleaned. The droplight did not work. The entrants egressed the ECR and the DFS CRO closed the lower tipping valve. The entrants retrieved a droplight and the DFS CRO reopened the lower tipping valve and the entrants returned to the ECR. The entrants attempted to start the water to the lance and a hose clamp failed. The DFS CRO closed the lower tipping valve while the entrants obtained a spare and replaced the hose clamp. The DFS CRO reopened the lower tipping valve and the entrants returned to the ECR.

The entrants cleaned the debris from around the tipping valve using the water lance under the guidance of NNOP DFS-011-01. One entrant estimated that about 20 gallons of water was used. The entrants then performed a clean out of the Agent Quantification System (AQS) strainer and placed the strainer sock on the upper feed gate. The used sock contained about one pound of agent-contaminated fiberglass fragments. The entrants replaced the safety shroud around the upper feed gate and egressed the ECR B at 2141 hours.

During the entry into ECR B, the DFS CRO was attempting to maintain the DFS kiln at -1.5 " Water Column (WC). The DFS feed chute sprays were also being used to reduce the temperature in the feed chute while entrants were in the ECR. The DFS kiln pressure controller, PIC-018, was set to maintain -1.5 " WC as per the NNOP. The DFS CRO was receiving kiln low pressure alarms during the cycling of the upper feed gate and the lower tipping valve. The operator took manual control of the pressure controller and then returned the pressure controller to automatic to clear the kiln low pressure alarms. The DFS Afterburner (AFB) high flow alarm was also cycling due to the variations in the pressure and flue gas flow through the system. The DFS CRO attempted to stabilize the furnace pressure and flow through the use of the kiln pressure controller, PIC-018. The DFS CRO also noted a high current draw to the Induced Draft (ID) fans and attempted to stabilize the current by taking manual control of the kiln pressure controller and reducing the setpoint. The DFS CRO received and acknowledged a venturi scrubber high differential pressure alarm. The entrants exited the ECR and the DFS operator returned the kiln pressure controller to a setpoint of -0.5 " WC. The DFS CRO then attempted to clear the venturi scrubber high differential pressure alarm by placing the venturi plug valve in manual.

During this time frame (2010 – 2158 hours), the kiln pressure was maintained consistently between -0.50 " WC and -1.60 " WC and the AFB pressure was maintained between -2.3 " WC and -5.4 " WC. System flow, pressure, and temperature responded to the opening and closing of the tipping valve and to the water wash-down of the DFS feed chute. (EXHIBIT P)

The DFS CRO attempted to control the system pressures and flows through the use of the venturi plug valve and the kiln pressure controller. The DFS CRO used the kiln pressure controller to clear the kiln low pressure alarm and the venturi plug valve to reduce the

high differential pressure across the venturi. The DFS CRO was able to clear the kiln low pressure alarm and began to open the venturi plug valve to reduce the high differential pressure and clear the alarm. The DFS CRO opened the venturi plug valve to 100%. The venturi plug valve operates at 60% under normal flow conditions.

The kiln and AFB pressure responded to the manipulations of the venturi scrubber differential pressure controller. The kiln pressure was controlled between $-0.76''$ WC and $-1.49''$ WC. The AFB pressure was maintained between $-3.05''$ WC and $-4.98''$ WC.

The DFS CRO received a scrubber tower packed bed low level alarm and opened the make-up valve to the packed bed in manual mode. The DFS CRO was able to clear the low level alarm. Then the DFS CRO received a flue gas flow meter alarm. This alarm caused a shutdown of the DFS kiln burner and AFB. The DFS CRO was being assisted by the Entry CRO and the acting Control Room Supervisor (SCRO). At the time of the flue gas flow meter failure and the subsequent burner lockouts, the kiln pressure controller was set to manual and the venturi scrubber differential pressure controller was operating in manual with a Control Variable (CV) of about 100%. The pressures were already trending to a more negative pressure. When the lockout occurred (at 2202 hours) both the AFB and kiln pressures immediately became more negative. The kiln and AFB pressures were indicating $-2.00''$ WC and $-6.00''$ WC, respectively, which is the lowest value the instruments are capable of recording. The Programmable Logic Controller (PLC) started a purge of the DFS AFB to allow a relight of the DFS AFB. Instrumentation Technicians (IT) began to troubleshoot the flue gas flow meter failure. During the purge of the DFS kiln and AFB, the flue gas flow meter was operating erratically. Also during the purge, the control system ramped open the combustion air flow control valves for the two AFB burners and the kiln burner. The control system also ramped open the kiln shroud air dampers. When this happened, the kiln pressure returned to $-0.93''$ WC and the AFB pressure returned to $-2.02''$ WC. The DFS CRO attempted to adjust the combustion air flows to both the kiln and the AFB. At this point, the CRO had taken manual control of the combustion air flow control valves for all three burners and reduced the CV to 10%. This was done to prevent cooling down the AFB while the Control Room (CON) was troubleshooting the failure of the flue gas flow meter. However, the venturi plug valve was still in manual with a CV of 100% and the kiln pressure controller was in manual with a CV of 20%. This configuration caused the kiln and AFB pressures to become excessively negative. The AFB pressure indicated $-6.0''$ WC from 2205 until 2229 hours. The kiln pressure indicated between $-1.46''$ WC and $-2.00''$ WC during the same time frame.

At 2226 hours, the SCRO directed the DFS CRO to initiate a purge of the DFS and attempt to light at least one burner in the DFS AFB. The DFS CRO increased combustion air flow to the AFB in an attempt to purge the DFS. By 2248 hours, the SCRO made the decision to stop trying to purge the DFS due to continued intermittent failure of the flue gas flow meter. As of 2249 hours, the CRO had taken manual control of the combustion air flow controllers for all three burners and reduced the CV to 25%.

This was done to prevent cooling down the AFB while the CON was troubleshooting the failure of the flue gas flow meter. However, due to high system flue gas flow, the venturi scrubber differential pressure controller was operating with a CV of 100% even though it was set to automatic control. The kiln pressure controller was in manual with a CV of 15%. This configuration caused the kiln and AFB pressures to become excessively negative. The AFB pressure indicated -6.0 "WC from 2249 until 2336 hours. The kiln pressure indicated -2.00 "WC during the same time frame. The DFS kiln room pressure is normally maintained at -0.85" WC by the ventilation system. From 2320 until 2334 hours, the DFS kiln room pressure indicated -2.00" WC. In each case, the pressures became more negative than the instrumentation was calibrated to detect. Also during this time, the ECR B Automatic Continuous Air Monitoring System (ACAMS) readings dropped from about 0.32 to 0.01 Maximum Permissible Limit (MPL). At 2318 hours, the DFS CRO stopped the clean liquor pump. This was done in an attempt to assist in drying out the flue gas flow meter.

2. Accident. At 2326 hours the two common stack ACAMS units initially alarmed at 0.67 and 1.57 Allowable Stack Concentration (ASC), peaking at 3.64 and 3.39 ASC. Approximately 14 minutes later the DFS duct ACAMS alarmed at 1.45 ASC and the acting SCRO directed a bottle up of the DFS. The acting SCRO was informed that the Depot Area Air Monitoring System (DAAMS) tubes for the common stack and the DFS duct confirmed the presence of GB chemical agent. By 0023 the flue gas flow meter had been jumpered by the ITs and was now functioning. The acting SCRO directed the DFS CRO to attempt a second relight of the DFS AFB. The DFS AFB completed its purge and a relight was initiated. During the relight, the common stack and DFS duct ACAMS alarmed again. The acting SCRO directed a bottle up of the furnace.

The Army's downwind hazard prediction modeling program (D2PC) uses agent source level, ambient weather, and type of release to calculate conservative, safe-sided distances that the agent would expect to travel in hazardous levels. This hazard prediction software, which was used by DCD's emergency operations center personnel, estimated that the release from the common stack on the night of 8 May 2000 would have traveled less than eight feet from the stack. This represents the greatest distance at which a dosage potentially hazardous to the general public (No Significant Effects dosage) might be found. (EXHIBIT E)

3. Post Accident. The DFS kiln remains bottled up. A group of outside operators installed an isolation flange to isolate the DFS AFB from the DFS kiln. The DFS AFB is operating at normal operating temperature. An entry was made into ECR B to remove and decontaminate the AQS strainer sock that had been placed on the upper feed gate. The LIC #1 is idle and up to temperature. The MPF and LIC #2 remain shut down for scheduled maintenance. An M56 warhead remains on the Rocket Shear Machine (RSM) conveyor in ECR B.

II. ANALYSIS.

A. **Mechanical Systems Analysis.** During the operation to control the DFS pressure and temperatures, the flue gas flow meter had become saturated by water giving a false low-low flow reading. The flue gas flow meter indicated that there was no flow through the system. However, other system instrumentation verified that there was significant flue gas flow through the DFS. This shut down the DFS and AFB, increasing the problems with maintaining control of the system pressure and temperature. At approximately 2230 hours, a temporary change form, to allow engineering changes, was written by the acting SCRO to jumper (bypass) the flue gas flow meter (EXHIBIT S). Per Temporary Change Control Process for the Technical Baseline (Project Regulatory Procedure (PRP)-OP-009), five signatures are required for the temporary change before the work can be performed. Some of those individuals are not on site during all shifts. On the night of the accident, initiation of the temporary change caused an approximate delay of 45 minutes before the approval was obtained. During this period of time, intermittent flue gas flow meter alarms delayed relight of the AFB burner. Relight of the AFB earlier in the event would have allowed the systems to be brought back to normal operations. This could have reduced the possibility of GB reaching the stack.

1. Burner Management System (BMS). The configuration of the burner management system does not allow for a restart of the furnace without conducting a purge of the system. The purge is required during normal starting of the furnace. During the sequence of events that led to the accident, the CRO had to purge the furnace in an attempt to relight the furnace. This purge allowed cold outside air to be drawn through the furnace, which reduced the temperature of the kiln and AFB. The burner management system had to complete the purge circuit. The purge circuit includes, among other conditions, an eight minute timer and high air flow rates as measured by the failed flue gas flow meter. At the time of the event, the furnace was above 1400°F and system flow was established, therefore there was no reason to purge the furnace prior to initiating a restart. During the second restart attempt the burner management system again required the furnace to complete the purge sequence. The BMS required purge of the system, which introduced cold air into the DFS system. This allowed GB agent to traverse through the system without complete destruction.

2. Flue Gas Flow Meter. At 2202 hours, 8 May 2000, the DFS flue gas flow meter failed. This meter is tied directly to the BMS for the DFS System. When the flue gas flow meter failed, the BMS locked out the kiln burner and both of the AFB burners.

After some initial troubleshooting of the flue gas flow meter, the DFS CRO initiated a system purge at 2226 hours. The DFS CRO was trying to light at least one AFB burner in order to maintain AFB chamber temperature above 1400°F. This temperature ensures complete destruction of combustible materials. The flue gas flow meter failed again during the system purge. This prohibited the DFS CRO from lighting any burners. By

2232 hours DFS AFB temperature had decreased to below 1500°F, the temperature required to relight the kiln burner.

Even though the CON was operating under the assumption that the kiln did not contain any chemical agent and, therefore, did not present any potential for release, they may have considered bottling up the DFS and isolating the DFS AFB from the kiln. The current method of isolating the DFS AFB from the kiln is for a team of outside operators to manually install a blind flange in the duct upstream of the DFS cyclone. Air is then allowed to flow to the DFS AFB from the bottom of the cyclone to make up for the lack of flow from the kiln. This is a very labor-intensive, time-consuming, and potentially hazardous operation. If the DFS AFB could have been isolated from the kiln remotely by the DFS CRO in the CON in a timely manner, then it is probable that the DFS CRO would have done so. If the DFS AFB had been isolated from the kiln during the attempts to troubleshoot the flue gas flow meter and relight one burner in the DFS AFB, there would have been no release of chemical agent from the common stack.

At the time of the flue gas flow meter failure and the subsequent burner lockouts, the kiln pressure controller was set to manual. The venturi scrubber differential pressure controller was also operating in manual with a CV of about 100%. The pressures were already trending toward a more negative pressure. When the lockout occurred, both the AFB and kiln pressures almost immediately became more negative than the pressure instrumentation is calibrated to detect. By 2202 hours the kiln and AFB pressures were indicating -2.00" WC and -6.00" WC, respectively.

On 1 January 2000, EG&G Maintenance Work Order #00-0000061 (EXHIBIT T) was written to investigate the cause of the malfunction and latching of flue gas flow meter low flow alarms, which had caused a burner lockout. Comments on this work order indicated that the malfunction was caused by moisture on the flow element probes. The malfunction cleared after flow through the system dried the probes.

According to EG&G Occurrence Report No: 00430-C1 (Draft) (EXHIBIT R), the DFS flue gas flow meter failed during the DFS upset on 30 April 2000. The failure of the flue gas flow meter locked out the AFB burners and compounded the system upset. The report notes that the failure of the flue gas flow meter may have been caused by exposure to liquid during a period of high flow rates through the system.

At 2159 hours on 8 May 2000, the DFS CRO introduced make-up water to the DFS scrubber tower packed bed by opening the process water make-up valve in response to a low level alarm. At 2200 hours, the flue gas flow meter indicated a failure and generated a malfunction alarm. (EXHIBIT P)

The data indicate that the abnormally high flue gas flow through the system caused some carryover of the make-up water that was being introduced to the packed bed. This

carryover caused the flow elements in the flue gas flow meter to become saturated with liquid. The flow transmitter signaled a "trouble" alarm but was able to function for another 22 seconds. At 2230 hours, ITs indicated that the flue gas flow meter had been saturated with liquid and that it would not operate properly until it had time to dry.

If the flue gas flow meter had not been exposed to excessive amounts of liquid it would not have failed. If the flue gas flow meter had not failed, the DFS CRO would have been able to stabilize DFS flows and pressures. It is probable that the DFS CRO would have been able to return the DFS to its normal operating parameters and been able to process the contaminated AQS strainer sock safely. The investigation concluded that if the flue gas flow meter had not failed, there would have been no release of chemical agent from the common stack.

3. Programmable Logic Controller (PLC) Response to Loss of DFS Purge. The DFS BMS contains a timer unit and control circuitry that monitors the status of the DFS purge. When all of the DFS purge conditions are met, the timer unit begins to time out. During this time the system is said to be purging. Once the preset value of the timer is met, the system is said to be purged (i.e., DFS purge is complete). An indication that the system is purging and an indication that the system purge is complete are input into the PLC system that monitors and controls the DFS.

When flue gas flow meter failed, the BMS control circuitry de-energized the system purge timer unit. The indication that the purge was complete was no longer sent to the PLC that controls the DFS.

The DFS control software is currently designed to automatically purge the DFS system any time that the purge complete signal from the BMS is de-energized and the Pollution Abatement System (PAS) ID fans and DFS combustion air blowers are operating. To establish system purge, the PLC automatically increases the CV for the following controllers 1% CV per second to 100%.

- 16-HIC-016 - Kiln Shroud Air
- 16-HIC-017 - Kiln Shroud Air
- 16-FIC-021 - Kiln Combustion Air
- 16-FIC-078 - AFB Burner #1 Combustion Air
- 16-FIC-079 - AFB Burner #2 Combustion Air

At 2204 hours, the DFS CRO had to take manual control of the combustion air flow control valves for all three burners and reduced the CV to 10%. This was done to prevent cooling down the AFB while the CON was troubleshooting the failure of the flue gas flow meter.

On the night of the accident, the automatic purge by the DFS PLC had several negative affects on the response to the DFS system upset. It introduced a large amount of cool air

into the system, causing a rapid cooling of the kiln and AFB chambers. This situation distracted the DFS CRO from performing other recovery procedures. The sudden increase and subsequent decrease of large amounts of cold air flowing into the system compounded the DFS pressure control difficulties that already existed.

The investigation concluded that the automatic system response to detecting the loss of the signal that system purge is complete contributed to the difficulties during the recovery response to the DFS upset.

4. Afterburner Temperature Controller Response to Loss of Purge. The AFB temperature controller controls the firing rate of both of the AFB burners. When the system is operating automatically under normal conditions, the AFB temperature controller CV is used to control the fuel gas flow to each of the AFB burners.

When the AFB temperature controller is operating automatically, it compares the measured AFB temperature to the controller set point. If the AFB temperature is below the set point, the AFB temperature controller CV increases, thereby increasing the fuel gas flow rate to both burners. If the AFB temperature is above the set point, the AFB temperature controller CV decreases, thereby decreasing the fuel gas flow rate to both burners.

In the current design of the DFS PLC control software, the AFB temperature controller will operate in this fashion any time after either burner has been lit for more than thirty minutes or if the AFB chamber temperature is above 500°F. When the AFB burners trip, the temperature in the chamber decreases substantially, but not below 500°F. The AFB temperature controller automatically responds to the decrease in temperature by increasing the AFB temperature controller CV to 100%. If an AFB burner is relit when the AFB temperature controller CV is 100%, the burner fuel gas flow control valve would be controlled to the fully open position. This would cause an excessive amount of fuel gas to be introduced to the system. This rapid introduction of fuel gas to the burner may cause the burner to be shut down again. Therefore, DFS operators are trained to take manual control of the AFB temperature controller CV under upset conditions.

When the burners locked out, the temperature in the AFB chamber decreased rapidly; therefore, the AFB temperature controller CV increased to 100%. At 2203 hours, the DFS CRO placed the AFB temperature controller in manual and reduced the CV from 100% to 10%. The automatic response of the control system distracted the DFS CRO from performing other recovery procedures. The investigation concluded that if the DFS CRO had allowed the automatic response to continue, the AFB temperature controller would have contributed to the DFS upset.

B. Operations/Procedures Analysis

1. Environmental Compliance. On 8 May 2000 at 2326 hours, ACAMS 701C alarmed in the common stack and peaked at 3.64 ASC. Also at 2327 hours, ACAMS 701A alarmed and peaked at 3.39 ASC. Both ACAMS readings were confirmed by DAAMS. This is a non-compliance with the TOCDF Resource Conservation Recovery Act (RCRA) Permit, Module 5, Condition V.C.2.F. The facility is required under TOCDF RCRA Permit, Module 5, Condition 1.U., and Condition 1.U.1.d., to notify the State of Utah within 24 hours of a common stack agent release above 1 ASC. Proper notification was made. Additionally, TOCDF RCRA Permit, Module 1, Condition 1.U.5.b. requires written confirmation of the 24-hour notification within five days of the initial notification. This was accomplished on 11 May 2000.

2. Non-Normal Operating Procedures (NNOPs). NNOPs are used, in accordance with PRP specifically, Non-Normal Development, Revision and Deletion, PRP-MG-010 (EXHIBIT I), for nonrecurring activities. The PRP, paragraph 6.5.2. requires that a NNOP be converted to a Standing Operating Procedure (SOP) if it is to be used repetitively. This statement is not definitive enough to effectively control the process, however; chute cleanouts have occurred at least twice in the previous three months. The intent of the NNOP process has been described as a largely informal method to handle short-fuse situations like test programs.

Cleanout of the DFS feed chute from ECR B, 8 May 2000, was being conducted using NNOP, DFS-011-01 (EXHIBIT H). PRP-MG-010 indicates that after thirty days the NNOP is automatically deleted unless an extension is granted. DFS-011-01 was approved 27 April 2000. The following comments apply specifically to DFS-011-01, the NNOP which was in use 8 May 2000:

(a) The checklist procedure instructs the CON Engineer to clear interlocks to allow the upper feed gate and the ECR door to be open at the same time. However, it does not include any instruction to override the interlock which prevents the lower tipping valve and the upper feed gate from being open simultaneously. In fact, the attached safety evaluation notes as a recommended mitigating action (5.2) that the lower tipping valve remain closed when personnel are in the ECR. Interview statements were made that glowing material was seen below the transition section, and the entry was being made in order to clear a lower tipping valve that was stuck open. This indicated that both gates must have been open simultaneously when people were in the ECR.

(b) The checklist procedure is not always clear about who is to perform a given task. As an example: Step 7 says, "CONNECT the hose and lance to a Process Water line." This must be accomplished by the entrants to the room. Step 9 says, "CLOSE the slide gate (MMS-GATE-103) and CYCLE the tipping gate (DFS-GATE-101)." This must be accomplished by the CON operator.

(c) All references in the checklist procedure are to ECR A and tag numbers for equipment items in ECR A, but the entry was to ECR B.

(d) The checklist procedure does not describe where the process water line to be tapped is located. It does not mention the ball valve, where the hose is connected to a process water line, which the entrants had to replace on this entry. The statement at Step 3, "Entrants must comply with the appropriate SOPs" lacks sufficient information to be meaningful. An SOP which would have been appropriate is TE-SOP-109, "Toxic MDB Entries."

(e) The safety evaluation attached to the DFS-011-01 is not specific to this revision of the checklist procedure. The safety evaluation notes potential hazards associated with inspection by Closed Circuit Television (CCTV) at procedure steps 6 and 13. DFS-011-01 does not include steps for inspection with CCTV.

(f) PRP-MG-010, paragraph 5.5, states that Safety will perform a safety hazards analysis to assure all risks have been mitigated and appropriate warnings and cautions included. Although the safety evaluation attached to DFS-011-01 uses the form specified in the PRP, it is not clear how the information presented accomplishes the goal set forth by paragraph 5.5. Specifically, neither the risk before mitigation nor the residual risk after mitigation have been identified or assessed. This is usually done through the use of a Risk Assessment Code (RAC). Use of RACs and an associated authority matrix assures that the risk of performing the operation is accepted at the appropriate level.

(g) The safety evaluation does not identify any hazards associated with chemical agent. During the time of the first entry to ECR B by DPE-clad personnel of A Team on 8 May 2000, there was a significant amount of agent in the room air. It was stated that since the NNOP was written for activities in ECR A, where agent levels are minimal because of the operations which have been performed (fuze and burster removal from GB-filled M360 projectiles), agent exposure was not an issue.

(h) The safety evaluation identifies hazards which are not usually associated with "safety." These include a RCRA violation and a poor TV picture. For overall management of an operation, it may be desirable to address these risks at the same time and in the same format as the more typical "safety" risks. It isn't immediately obvious, however, how such items should be coded to assure comparable assessment of risk.

(i) The comments of the safety evaluation related to Step 2 of DFS-011-01 make it appear that a memo, Operations Management Memorandum (OMM)-00-05, provides considerably more instruction than would appear to be the case based on Step 2 of the checklist procedure. The potential hazard identified and the recommended action seem unclear, as well. The potential hazard is that adjusting the set point of TIC-182 may cause the Heated Discharge Conveyor (HDC) to lose temperature, resulting in a RCRA

violation. The recommended action, however, is that adjusting this set point will cause the kiln temperature to increase, thereby avoiding a RCRA violation. It appears that the same action (adjusting the set point of TIC-182) both poses and mitigates the same hazard.

(j) Both the checklist procedure and the safety evaluation appear to presume the water lance will be operated by an individual standing above the feed gate. In fact, the safety evaluation, Step 9 (which actually corresponds to Step 7 of the checklist procedure, see item e, above) recommends that a water valve be connected directly to the water lance to be opened and closed from inside the ECR. Based on observation of the videotape documenting the entry on 8 May 2000, it appears the water flow was being controlled from outside the ECR in the Upper Munitions Corridor (UMC).

(k) The entire instructions for the DFS operator with respect to controlling the furnace during this operation are given in a single step, Step 2, of the NNOP, "REDUCE the DFS kiln pressure in accordance with OMM-00-05." However, there is no discussion regarding how this is to be accomplished.

Army Regulation (AR) 385-61, *Army Chemical Safety Program*, paragraph 2-4.e, dated 28 February 1997, requires that operating procedures specify the steps to be taken in detail, and NNOP DFS-011-01 does not specify, in detail, the steps to be taken by either the DFS operator or the entrants to the ECR. Also of concern, the accuracy and validity of the risk assessment depend very heavily on the procedure being assessed. If the procedure does not identify steps, which will be taken, specifies them incorrectly, or assumes a very different operational environment than the one, which will actually be encountered, the conclusions of a risk assessment based on that procedure will be invalid.

Department of the Army Pamphlet (DA Pam), *Toxic Chemical Agent Safety Standards*, paragraph 6.3.a, dated 31 March 1997, requires that hazards for operations involving chemical agents be assigned a RAC. As noted above (paragraph f), the procedure for preparation of safety evaluations for NNOPs does not require or support the assignment of RACs. As such, risk information provided to decision makers is limited, and since residual risk is not identified, there is no guarantee it has been appropriately accepted.

TOCDF has an extensive and formal program for training, qualification, and certification of personnel using SOPs. Operators must read, understand and comply with SOP contents. SOPs are validated before being implemented. No such programs exist for NNOPs. The NNOP was reviewed during the DPE pre-entry meeting. Others who did not attend the pre-entry meeting (such as the DFS CRO) were handed the procedure immediately before being directed to implement it.

3. Clean Liquor Pump Operations. The DFS kiln pressure is normally maintained at -0.50" WC relative to the DFS kiln room. The DFS AFB pressure is normally maintained at about -2.30" WC relative to atmosphere. By 2249 hours on 8 May 2000,

the DFS upset had caused the kiln and AFB pressures to become excessively more negative than the pressure instrumentation is calibrated to detect. The AFB pressure indicated -6.0" WC from 2249 until 2336 hours. The kiln pressure indicated -2.00" WC during the same time frame.

The kiln room pressure is normally maintained at -0.85" WC by the ventilation system. During the time that the kiln pressure became very negative, the kiln room pressure also decreased. By 2322 hours, the kiln room pressure indicator was indicating more negative than the pressure instrumentation is calibrated to detect at -2.00" WC and remained at -2.00" WC until about 2338 hours.

Also during this time, the ECR B ACAMS readings dropped from about 0.32 to 0.01 MPL. This data indicates that when the kiln pressure became excessively negative, agent was drawn into the kiln from ECR B.

At 2318 hours, the DFS CRO manually stopped the operating clean liquor pump in an attempt to minimize the carryover of liquid to the flue gas flow meter. The clean liquor pump circulates high pH clean liquor onto the pall rings in the scrubber tower packed bed. This is done to ensure that the DFS flue gases have an increased contact time with the high pH clean liquor. When the clean liquor pump was stopped, the circulation of high pH clean liquor onto the pall rings stopped.

At 2326 hours, the common stack agent alarm (701C) activated. The PAS is designed to remove acid gases from incinerator exhaust and is not designed or intended to destroy chemical agent; however, the alkalinity of the solution will react with GB, if present. If the clean liquor flow had not been stopped, the agent in the DFS flue gas would have had increased contact time with the caustic in the clean liquor solution. The investigation concluded that if the clean liquor pump had remained running, the total amount of agent released from the common stack would have been reduced.

4. High Velocity of DFS Flue Gas. Events that occurred during and after the execution of a NNOP to wash debris from the DFS lower tipping valve led to a situation in which the DFS furnace pressure was excessively negative and the flue gas velocity was excessively high. As discussed previously, agent was drawn into the kiln from ECR B. The high flue gas velocity helped to cool the kiln and AFB chamber. By 2326 hours, the kiln and AFB temperatures were 213°F and 1281°F, respectively. The thermal destruction of agent is dependent on temperature and residence time. The chemical neutralization of agent is dependent on pH and contact time. In either method, the high velocity of the flue gases decreased the agent destruction efficiency. The investigation concluded that the high velocity of the flue gases contributed to the release of chemical agent out of the common stack.

5. Excessive Water in the DFS Feed Chute. From 2125 to 2129 hours on 8 May 2000, approximately 100 gallons of process water, derived from Process Data Acquisition and

Recording System (PDARS) data, was introduced to the DFS feed chute during the execution of NNOP DFS 011-01 to wash debris from the DFS lower tipping valve. The kiln exhaust temperature decreased from 1022°F to 857°F due to the water being introduced and the cool room air being drawn in through the open feed gates. From 2034 to 2129 hours, the burner temperature increased from 1434°F to 1514°F in an attempt to maintain kiln exhaust temperature. The AFB temperature controller was also responding and increasing the burner firing rate to recover temperature to the set point.

The burner response to this addition of process water contributed to the DFS upset because the burners introduced additional fuel gas and combustion air into the system to maintain furnace temperature. The investigation concluded that the water that was added flashed to steam when it entered the high temperature environment of the kiln. This rapid generation of steam instantly upset the temperature/pressure relationship and contributed to the perturbations of the DFS pressures and flow rates.

6. DFS Pressure Control. There are two variable controlled devices in the DFS PAS that can be adjusted to modulate the restriction of flue gas flow through the DFS PAS. The first device is the plug valve in the DFS PAS venturi scrubber. This device can be raised into the venturi to restrict flow or lowered out of the venturi to reduce the impedance of flow. The second device is a variable damper located at the inlet of the DFS PAS ID fan. This device can be modulated open to allow flow to the ID fan with less differential pressure, or it can be modulated closed to restrict the flow of flue gas to the ID fan.

The TOCDF control system uses Proportional, Integral, and Derivative (PID) controllers to modulate variable controlled devices. The PID controller compares the controller Set Point (SP) to the measured Process Variable (PV). If the SP and PV are equal, then the CV remains unchanged. If the SP and PV are not equal, the PID controller changes the value of the CV to try to get the PV to match the SP.

The PID controller 24-PDIC-008 CV controls the position of the plug valve in the DFS PAS venturi scrubber. The PID controller, 16-PIC-018, controls the position of the variable damper located at the inlet of the DFS PAS ID fan.

The differential pressure across the venturi scrubber is controlled by 24-PDIC-008. If the differential pressure is too low (i.e., 20" WC) then hazardous waste feed to the DFS is stopped because the removal efficiency of the venturi scrubber can no longer be assured. When operating in the automatic mode, 24-PDIC-008 monitors the differential pressure across the venturi scrubber. If the differential pressure (i.e., the PV) decreases below the SP, 24-PDIC-008 CV decreases to modulate the plug valve into the venturi to restrict flow and increase differential pressure. If the PV increases above the SP, 24-PDIC-008 CV increases to modulate the plug valve out of the venturi in order to decrease the differential pressure. Typically, the 24-PDIC-008 SP is set to 30" WC.

The pressure inside the DFS kiln is controlled by 16-PIC-018. If the kiln pressure is too high (i.e., -0.1 " WC) then hazardous waste feed to the DFS is stopped because there is not enough negative pressure to assure that there is no leakage from the kiln into the kiln room. When operating in the automatic mode, 16-PIC-018 monitors the pressure inside the kiln. If the kiln pressure (i.e., the PV) decreases below the SP, 16-PIC-018 CV decreases to modulate the ID fan inlet damper closed to restrict flow and therefore, increase kiln pressure. If the PV increases above the SP, 16-PIC-018 CV increases to modulate the ID fan inlet damper open to reduce the resistance to flow and therefore, decrease kiln pressure. Typically, the 16-PIC-018 SP is set to -0.50 " WC.

Variable controlled devices typically operate most effectively when they are controlled between 25% and 75% CV. Below 25% and above 75% usually indicates non-linear system response.

From 2146 to 2150 hours, the DFS CRO gradually changed 24-PDIC-008 CV from 95% to 65% in the manual mode. The DFS CRO then placed 24-PDIC-008 in automatic mode.

From 2150 to 2158 hours, the kiln pressure was maintained between -0.68 " WC and -1.49 " WC. The AFB pressure was maintained between -3.05 " WC and -4.98 " WC. Both chamber pressures were becoming more negative because 24-PDIC-008 CV was increasing and 16-PIC-018 was in automatic but with a CV of less than 25%.

At 2158 hours, the DFS CRO gradually changed 24-PDIC-008 CV from 86% to 100% in the manual mode (note that the controller had increased the CV from 65% to 86% in about eight minutes because the differential pressure was above the SP).

From 2158 to 2202 hours, (just prior to the failure of the flue gas flow meter) the kiln pressure was maintained between -1.60 " WC and -2.00 " WC. The AFB pressure was maintained between -5.34 " WC and -6.00 " WC. Both chamber pressures were becoming more negative because 24-PDIC-008 CV was set at 100% and 16-PIC-018 was in manual with a CV of less than 25%.

At 2202 hours on 8 May 2000, the DFS flue gas flow meter failed. This caused an actuation of the "NFPA Loss of System Draft" alarm. This indication is tied directly to the BMS for the DFS system. When the alarm activated, the BMS locked out the kiln burner and both of the AFB burners.

At the time of the flue gas flow meter failure and the subsequent burner lockouts, the kiln pressure controller was set to manual. The venturi scrubber differential pressure controller was operating in manual with a CV of about 100%. The pressures were already trending to a more negative pressure. When the lockout occurred, both the AFB and kiln pressures immediately became more negative than the pressure instrumentation

is calibrated to detect. By 2203 hours, the kiln and AFB pressures were indicating -2.00" WC and -6.00" WC, respectively.

At 2204 hours, the DFS CRO had to take manual control of the combustion air flow control valves for all three burners and reduced the CV to 10%. This was done to prevent cooling down the AFB while the CON was troubleshooting the failure of the flue gas flow meter.

The DFS CRO was still controlling 24-PDIC-008 in manual with a CV of 100% and 16-PIC-018 was in manual with a CV of 20%. This configuration caused the kiln and AFB pressures to become excessively negative. The AFB pressure indicated -6.0" WC from 2205 until 2229 hours. The kiln pressure indicated between -1.46" WC and -2.00" WC during the same time frame. The data indicate that when the kiln pressure became excessively negative, agent was drawn into the kiln from ECR B.

The investigation concluded that the inability of the DFS CRO to maintain DFS system pressures adequately after the execution of the NNOP DFS 011-01 to clean debris from the DFS lower tipping valve was a contributing factor to the release of chemical agent out of the common stack.

7. Demilitarization Protective Ensemble (DPE) Entry. The DPE entry had been planned to accomplish two things: (1) The DFS feed chute was to be cleaned and (2.) Preventive Maintenance (PM) for the RSM was to be accomplished. Although time did not allow both tasks to be completed, the feed chute was cleaned and the strainer sock (removable/disposable filter bag) was changed. During the process to change out the sock, an entrant's airline was stretched above the upper feed gate, which was hot. This is the upper feed gate for the DFS feed chute, but it is at floor level in the ECR. Although failure of the airline would not be expected to have immediate catastrophic results for the entrant, the entrant's breathing air supply would immediately be limited to the 8-10 minute bottle on the DPE back pack. This bottle would provide more than sufficient air for the entrant to hastily egress through the nearest emergency exit.

8. Standing Operating Procedure (SOP) Organization. The organization of SOPs can make timely retrieval of information, especially under the adverse circumstances of a plant upset, very difficult. To discover how to recover from an upset, an operator may be required to flip through pages to a section on Contingency Startup, only to be directed to flip back through more pages to Normal Startup. This takes time, which could more profitably be spent recovering from the upset, as well as adds to the general confusion of an already confused situation. This added confusion and increased time prevents the operator from reacting quickly to correct upset conditions.

The SOP for the DFS Furnace System Operation (SOP-004) does not include procedures for restart of the DFS AFB after a burner lockout. The procedure allows for only two options during an upset condition, (1) the bottle up of the DFS or (2) perform an

emergency shut down. The procedure does not outline the steps necessary to recover just the DFS AFB and return the AFB to normal operation. The operator must restart the furnace following the normal system start up. The SOP also lacks the detailed actions to be taken if the expected outcome is not achieved. In contrast, the LIC SOPs allow for a restart of the furnace after an upset condition. If the DFS SOP had contained detailed procedures to restart the DFS furnace during the conditions experienced, this accident would not have occurred.

The CRO attempted to use an uncontrolled copy of the BMS schematics to assist in the trouble shooting of the failed flue gas flow meter. The CROs routinely make copies of the system schematics that affect the systems they are controlling. This practice is in violation of PRP-DC-008 section 4.13. These uncontrolled copies are located next to the console for easy reference during operations. The schematics are not part of the management system that ensures only controlled copies are in use. This allows the CRO to use schematics that may not be current. The investigation concluded that the use of uncontrolled schematics is a dangerous practice.

9. Monitoring Data. The ACAMS and the DAAMS worked as they were supposed to, alerting the workers at the TOCDF to the presence of the chemical agent, GB. The ACAMS and DAAMS equipment functioned properly and personnel from the Laboratory and Monitoring Branch responded with the appropriate action. A thorough analysis of the ACAMS and DAAMS data was performed during this investigation. The analysis verified that the proper Laboratory Operating Procedure (LOP) was in use and was fully adhered to. There were no problems with the calibration, data analysis, or reporting of the results for either the ACAMS or the DAAMS. However, a mix up of the DAAMS paperwork during the chemical event may have diverted resources in the TOCDF CON for a period of approximately ten minutes.

The ACAMS involved in the event are 701A, 701B, 701C, and 702. ACAMS 701A, B, and C are located near the top of the common stack and ACAMS 702 is located in the duct coming from the DFS PAS going to the common stack. The DAAMS involved in the event have the same identifying alphanumeric code.

A time line of ACAMS alarms received during the event is presented below (NOTE: Only the time of initial alarm and the time the alarm cleared is presented in this abbreviated timeline):

8 May 2000

2326 hours - ACAMS alarm sounded at 701C, 0.67 ASC
2328 hours - ACAMS alarm sounded at 701A, 1.57 ASC
2341 hours - ACAMS alarm sounded at 702, 1.45 ASC
2351 hours - ACAMS alarm clears at 701A
2353 hours - ACAMS alarm clears at 701C

9 May 2000

0008 hours - ACAMS alarm clears at 702
0028 hours - ACAMS alarm sounded at 702, 0.87 ASC
0028 hours - ACAMS alarm sounded at 701B, 0.39 ASC
0029 hours - ACAMS alarm sounded at 701C, 0.56 ASC
0038 hours - ACAMS alarm clears at 701C
0040 hours - ACAMS alarm clears at 701B
0056 hours - ACAMS alarm clears at 702

Calibration and Quality Control (QC) data were reviewed during this investigation to ensure ACAMS 701A, 701B, 701C and 702 were properly maintained. Based on review of this data, the ACAMS were properly maintained. ACAMS 701A, 701B, and 701C required QC every four hours. This is a part of the normal maintenance and QC schedule. The PDARS data shows ACAMS 701A, 701B, and 701C had proper QC both before and after the accident. Moreover, this QC demonstrated ACAMS 701A, 701B, and 701C were operating correctly. ACAMS 702 has slightly less rigorous requirements since it is a less critical alarm, but QC was performed within 24 hours of the event, as required. Again, the QC demonstrated ACAMS 702 was operating correctly during the event. Interviews with TOCDF Monitoring Branch, personnel confirmed the QC information. (EXHIBIT L)

Monitoring Branch personnel interviewed included the shift supervisor during the event as well as the technician tending ACAMS 701A, 701B, and 701C and the QC Team leader. Their assessment is that the ACAMS were operating properly. They said that qualitatively, the peaks from the strip chart recorders were characteristically identical to the peaks expected from the chemical agent, GB. Their judgment was that the ACAMS 701A, 701B, 701C, and 702 detected GB.

Calibration and QC data were reviewed to ensure DAAMS at 701A, 701B, 701C and 702 were properly maintained and in control. DAAMS is used to confirm ACAMS alarms. DAAMS tubes from the previously listed stations were removed and taken to the CAL and analyzed for the chemical agent, GB. Prior to analyzing DAAMS tubes, Quality Laboratory (QL) standards are performed on the Mass Spectrometer (MS) and Flame Photometric Detector (FPD). In all cases, the QLs indicated the MS and FPD were in control. As a matter of course, QLs are used after sample analysis to again verify the MS and FPD are in control. Post analysis QLs indicated the MS and FPD were in control. The investigation also looked at the individual analyses of the DAAMS tubes to ensure the ion ratios were correct for the MS and the retention times were correct for the FPD. In all cases, the ion ratios and retention times were accurate for the MS and FPD, respectively, for chemical agent, GB.

Another area examined was the DAAMS tube histories. Prior to use in the TOCDF plant, the DAAMS tubes must be desorbed to ensure there is no background GB contamination.

Tube histories were examined and it was verified that the DAAMS tubes from ACAMS 701A, 701B, 701C, and 702 were desorbed prior to use in the plant. Use of a tube, which has previously been used but not properly desorbed, can incorrectly indicate the presence of chemical agent.

The shift leader on duty during the event and the QC supervisor were interviewed. The shift leader had complete confidence in the results as reported and that the DAAMS tubes analyzed did indeed have GB on them. The QC supervisor had repeatedly reviewed the DAAMS data from the event and could not find fault with the results as reported. It is their belief that the DAAMS tubes did contain agent in the amounts reported.

A monitoring technician inadvertently switched the paperwork for the DAAMS tubes from PAS 702 with the paperwork for DAAMS tubes from PAS 704. The switch occurred during the rush to get the DAAMS tubes to the Chemical Agent Laboratory (CAL) for analysis. The DAAMS tubes were transported by the technician to the CAL, put in the queue for analysis, and then analyzed. The technician realized his mistake after ten minutes. The technician immediately drove back to the CAL and informed both the personnel at the CAL and the CON of the mistake. The technician corrected and initialed the paperwork that accompanied the DAAMS tubes. A written statement, signed by the technician who switched the paperwork accompanying the tubes, is part of the archived analytical results. During the time before the mistake was corrected, the CON was not aware of the actual source of the agent released.

Perimeter monitoring stations are located at various points around TOCDF. The perimeter monitoring stations use DAAMS tubes to collect air samples that may contain chemical agent. Two tubes are used simultaneously at each station. The DAAMS tubes sample air for 12 hours and are then analyzed for chemical agents by technicians at the CAMDS), co-located with TOCDF at DCD. The perimeter DAAMS tubes sampled the air surrounding TOCDF from 1800 hours, 8 May 2000, to 0600 hours, 9 May 2000. This time frame brackets the times of the accident. One DAAMS tube from Station 905 showed a very small peak, well below the Limit of Quantification (LOQ), using FPD analysis, with a retention time consistent with that of GB. If the chromatographic peak was indeed GB, the level was approximately 0.03 of the General Population Level (GPL) (LOQ is 0.20). Results below LOQ are suspect.

A technician at CAMDS desorbed the second DAAMS tube before another confirmational analysis could be obtained. Retaining these tubes for possible analysis, even when the A (first) tube has been analyzed to below LOQ quantities, would have been beneficial.

As the second tube was not available, and to provide a more robust analysis of the DAAMS tube from station 905, meteorological data was requested from CAMDS to determine the wind speed and direction at the time of the event. The location of the eleven perimeter monitoring stations was also requested. Based on the wind speed and

wind direction, which existed at the time of this event, there was no mechanism to transport agent from the common stack to Station 905. Station 905 is located a couple of miles from TOCDF and was upwind at the time of the event. Stations in an area where the existing wind might have transported agent, 907 and 910, did not detect any GB during the event. (EXHIBIT E) This investigation concluded that no agent released from TOCDF was detected at the perimeter during the event.

In general, the ACAMS and DAAMS values are in agreement. However, some discrepancies warrant explanation. A graph titled "TOCDF ACAMS Alarms" is included (EXHIBIT G), and referred to, in the following discussion. The graph shows time, on the abscissa and the ACAMS reported level of GB on the ordinate. ACAMS 701A, 701B, 701C and 702 are shown on the graph.

The first curious result, referring to the initial alarm during the period 23:26 to 00:08 hours, is the delay in time and the depression of signal for the ACAMS 702 data, with respect to the stack ACAMS. The ACAMS 702 is upstream of the ACAMS 701 series. Normally, one would expect to find the ACAMS 702 going into alarm before or simultaneously with the ACAMS 701 series (the residence in the duct between the two detectors is on the order of seconds). However, the ACAMS 702 alarms about 14 minutes later than ACAMS 701A and 701C. Additionally, ACAMS 702 has a reported peak GB value of approximately 1.5 ASC while ACAMS 701A and 701C both have a peak value of roughly 3.5 ASC. This is unusual because the ACAMS 701A and 701C should see a lower concentration than the ACAMS 702, due to dilution downstream of 702 and upstream of 701A, 701B (which was not on-line during the first event), and 701C. The flow from ACAMS 702 was diluted prior to its arrival at ACAMS 701A, 702B, and 701C by the effluent from the liquid incinerator. This additional gas flow should reduce the ACAMS and DAAMS readings at ACAMS 701A and 701C.

The DAAMS data for ACAMS 701A and 701C correlates well with the 701A and 701C data. Likewise, the 702 DAAMS data agrees with the stack ACAMS and DAAMS data, since the reported ASC value is slightly higher than 701A and 701C. This is expected because of the previously mentioned dilution of the DFS effluent with gasses from the LIC.

The second singular result is the relatively quick reduction of the reported concentration for ACAMS 701A and 701C relative to that of ACAMS 702. The ACAMS 701A and 701C go out of alarm at 2351 and 2353 hours on 8 May 2000, respectively. Meanwhile, ACAMS 702 remains in alarm until 0008 hours on 9 May 2000. Just as ACAMS 702 would be expected to go into alarm before ACAMS 701A, B. or C, it would normally be expected to go out of alarm before the stack ACAMS.

A plausible explanation of these results, consistent with the facts as they are known at this time, is carbonaceous deposits on influent side of the sample probe adsorbing and then slowly desorbing GB. Prior to the alarms, the furnace was in an upset condition.

This is known from control room data as well as ACAMS chromatographic data. The ACAMS data shows numerous compounds eluting from the gas chromatographic column where normally few if any compounds are seen. These compounds, most likely the carbonaceous Products of Incomplete Combustion (PICs), may have adhered to the inside of the ACAMS 702 sample tube thus providing attractive adsorption sites for GB entering the PAS duct sample probe. Carbon is a well-known and characterized adsorbent that adsorbs nerve agents such as GB quite well. Just as carbon adsorbs organic compounds, such as GB, it will also desorb organic compounds such as GB over time.

To check this possible explanation, the sample probes' transmission efficiencies were tested by the Monitoring Support Branch for 701A, 701B, 701C, and 702. The logbook for ACAMS 702 was also checked to see if the transmission efficiency had decreased since the event.

The logbook for ACAMS 702 showed there was a decrease in the transmission efficiency since the event. Upon getting transmissions of 20% and less, the technician, washed out the probe with deionized water. After several washings the transmission efficiency improved to an acceptable level of 80% or better. The transmission efficiencies as tested during the investigation checked the full length of the sample probe, but the transmission efficiency is only checked on half the length or less by current procedures.

The sample probes for the ACAMS 701A and 701C, the two probes involved, were tested and found to have acceptable transmission efficiencies. Currently, the transmission efficiency is only checked on half the length or less of the sample probe.

As was noted previously, the readings for ACAMS 702 move asymptotically toward zero. This result is consistent with GB desorbing slowly from the carbonaceous deposits on the ACAMS 702 sample probe. Furthermore, with the exception of a single point, the ACAMS alarm levels rose slowly for ACAMS 702 while those of 701A and 701C rose very quickly. This is again consistent with GB adsorbing onto the carbonaceous deposits in the sample probe thus lowering the concentration of GB transmitted to the ACAMS 702.

The second event on the graph is a nearly textbook example of how the PAS ACAMS should alarm, in both time of response and level of agent, given the presence of agent in the PAS. The ACAMS 702, with its attendant sample probe, once again takes longer to go out of alarm.

C. Management/Personnel.

1. Training Issues. Control room operators undergo lengthy training to become certified. The training starts after the operator's initial employment with the systems contractor. The operators are sent to the CDTF for initial training. The operators are trained on basic system procedures and return to the site for on-the-job training (OJT). The operators are certified after a formal training program on site.

2. Knowledge. The DFS CRO was certified to operate the DFS without supervision. During his training at the CDTF, approximately one year ago, he received both written and practical examinations on furnace upset conditions. The OJT included written examinations and practical hands-on experience in operating the DFS under normal conditions, but did not include practical testing or training on furnace upset conditions. The DFS CRO had not experienced any furnace upset conditions during his OJT or during his tenure as a DFS operator. There is also no requirement to retrain CON operators at the CDTF.

Additionally, the DFS CRO did not demonstrate a thorough knowledge of the DFS system. The DFS CRO was adjusting the system to values experienced during normal operation of the furnace. The DFS CRO did not take the appropriate corrective actions based upon rapidly changing conditions. The DFS CRO used values that would have been satisfactory for normal furnace conditions. The operator was unable to determine the cause and effect relationships of the inputs he was providing. Failure to fully understand this cause and effect relationship allowed the operator to provide inputs that caused system response far exceeding normal values. The CRO was also unable to determine the entire system response based on his inputs to the control system. The operator was unaware of the conditions that caused the accident.

The acting SCRO was attempting to further the training of the DFS CRO by allowing the operator to control the furnace during a DPE entry that caused large changes in furnace pressures. This was also the first time the DFS CRO performed NNOP DFS-011-01 to clean the feed chutes. The acting SCRO was unaware that the DPE entrants placed an AQS strainer sock containing agent on the upper feed gate in the ECR. The acting SCRO believed that no agent was present in the DFS. During the initial failure of the flue gas flow meter, the acting SCRO and another senior CRO allowed the DFS operator to continue to operate the furnace believing that no agent was present.

Shift teams have varying levels of knowledge and experience. The investigation concluded that the team in the CON the night of the accident was relatively inexperienced. The experience level of the team was further degraded because the regular SCRO was on leave that night.

The DFS CRO on duty the night of the accident was relatively inexperienced at operating the DFS and had never operated the DFS after a system upset. There were only two other

members of the CON staff who were more experienced and may have been able to assist the DFS CRO recover from the DFS upset. However, one was the Entry CRO and he was fully occupied communicating with the DPE entrants during the execution of the non-normal procedure to wash debris from the DFS lower tipping valve. The other person was the acting SCRO. The acting SCRO was fully occupied with running the rest of the CON and ensuring that the plan of the day was being executed properly.

As the DFS upset progressed, the Entry CRO was able to lend some assistance. However, this assistance came too late and was not sufficient. Also, when the acting SCRO became involved and decided that this might be a good training exercise, he was not informed of the AQS strainer sock that had been placed on top of the DFS feed gate.

The investigation concluded that a lack of DFS operating expertise and poor communications in the CON contributed to the release of agent from the common stack.

3. Communications. During the night of the accident the Plant Shift Manager (PSM) was occupied with the coordination of the repackaging of M56 warheads in the Unpack Area (UPA) and with other administrative duties. He was unaware of the upset of the DFS and that an inexperienced CRO was being allowed to recover the system as part of his OJT. He later said that, if consulted, knowing what he knew at the time, he would have agreed with the acting SCRO and allowed the training experience to occur.

The PSM was not notified of any particular problem until he was asked to help process the Temporary Change Form, DFS-0112, to allow a jumper to be installed into the DFS BMS. The jumper was to allow the system to be purged with the intent of getting at least one AFB burner lit.

Additionally, when the PSM became involved, he was not informed of the AQS strainer sock that had been placed on top of the DFS feed gate. Had he known of the AQS strainer sock on the DFS feed gate and the excessively negative pressures in the kiln, he may have directed the acting SCRO to ensure that the DFS was bottled-up until an alternate restart method could be developed.

The investigation concluded that poor communications in the control room and the resulting lack of early awareness by the PSM contributed to the release of agent from the common stack.

D. Observations.

1. DPE Entry. A pre-entry meeting precedes every DPE entry conducted at TOCDF. This meeting must be attended by the PSM (or designee). It must also be attended by the operations supervisor, the DPE entrant team, the DPE Support Area (DSA) lead operator and support team, a safety representative, the CON operator involved, the Medical Clinic person who will monitor the entry, and an environmental representative. During this

meeting, the qualifications of involved personnel are verified, the tasks to be accomplished are discussed, and entry/exit routes are identified using the pre-entry checklist. The pre-entry checklist (EXHIBIT J) has not implemented PMCD Policy Statement No. 57, *Medical Evaluations for Potential Exposure at Chemical Demilitarization Facilities (CDF) and the CAMDS – Department of Army Pamphlets (DA PAMs) 40-8 and 40-173*, dated 29 December 1998. The area which has not been implemented relates to the agent level in the surrounding air if the DPE should be breached, and so did not figure into the events of 8–9 May 2000 in any way, but the checklist criteria should be made consistent with PMCD policy.

The videotape of a DPE entry to ECR B was reviewed. All DPE entries are video taped for accident prevention purposes and systems analysis. This videotape documents the operation to free a lower tipping valve, which had been sticking on 8 May 2000 (although the entrants state the debris was actually clear by the time they arrived at the ECR). The actions observed correspond with the entrants' description, especially the multiple times they had to return to the airlock to obtain supplies (a ball valve, a hose clamp, a drop light). This resulted in the tipping valve being cycled numerous times. It is noted, however, that the time stamp on this videotape is incorrect by several hours. While the entry actually began around 2010 hours, the time stamp on the videotape indicates it began at approximately 1420 hours.

2. Read & Sign. All TOCDF SOPs require personnel to read and sign a document indicating they have read and understand the requirements of each SOP. A "Read and Sign" document is also required for all changes to SOPs. A sample of "Read and Sign" documents was reviewed to determine if this requirement was being implemented. Based on this sample, the requirement is being fulfilled. As a side note, TE-SOP-004 Rev 4 Chg 1 was approved on 17 April 2000, but the basic document, TE-SOP-004 Rev 4 Chg 0, was not approved until 26 April 2000. (EXHIBIT Q) While the actual change was very minor, it is nonetheless troubling that a change was somehow approved for implementation before the basic document had been accepted for use.

3. Training. The Personnel Training Plan (PTP), Revision 5, (CDRL 18) was reviewed. This document identifies the training requirements for certification and qualification of all personnel. The personnel training records for the identified personnel meet the requirements of the PTP. However, the training records are not standardized in their description. Over time, course material has been redistributed among courses. All material is still being taught, but course names have changed in some instances. For instance, the Site CSDP Ammunition Course (SAMMO) is a required course for all CON operators. However, not all CON operators have taken this class. The reasoning for this is that the more senior personnel are listed as taking General Employee Training. This course, which is no longer offered, included the information currently provided by SAMMO. Although the PTP requires all CON operators to take the Container Handling

Building (CHB) Operators Class, some CON operators have not taken this course. This course is currently only provided to those CON operators who are/will be CHB operators. The PTP does not reflect these changes to course names and training philosophy.

III. FINDINGS AND RECOMMENDATIONS

A. Mechanical Systems Analysis

Finding #1. If the flue gas flow meter had not failed, the DFS CRO would have been able to stabilize DFS flows and pressures. It is probable that the DFS CRO would have been able to return the DFS to its normal operating parameters and been able to process the contaminated AQS strainer sock safely. If the flue gas flow meter had not failed, there would have been no release of chemical agent from the common stack. (EXHIBIT A/M)

Finding #2. If the flue gas flow meter had not been exposed to excessive amounts of liquid, it would not have failed. If the flue gas flow meter had not failed, the DFS CRO would have been able to stabilize DFS flows and pressures. It is probable that the DFS CRO would have been able to return the DFS to its normal operating parameters and been able to process the contaminated AQS strainer sock safely. If the flue gas flow meter had not failed, there would have been no release of chemical agent from the common stack. (EXHIBIT A/M)

Finding #3. It is probable that if the flue gas flow meter had not erroneously indicated a loss of system flow, the DFS CRO would have been able to stabilize DFS flows and pressures and been able to process the contaminated AQS strainer sock safely. If the flue gas flow meter had not indicated erroneously, there would have been no release of chemical agent from the common stack. (EXHIBIT A/M)

Recommendation #1-3. Identify and install a more robust method of ensuring that the DFS flue gas rate is measured for minimum draft. The following options should be investigated:

- Install a backup to 24-FSLL-430 using a more robust flow-indicating switch. Wire the signal from this switch into the BMS in parallel with the existing 24-FSLL-430.
- Identify a flow element and flow-indicating transmitter that is more robust and resistant to exposure to the flue gas at the exhaust of the scrubber tower under all DFS operating conditions.
- Determine if there is an alternate location that the flow element can be installed so that it can perform its intended function without being exposed to conditions that cause degraded performance.

Assigned to: PMCS D

Finding #4. The current configuration of the BMS forced the operator to purge the furnace and introduced cold air into the furnace system. The furnace did not require a purge prior to relight. (EXHIBIT A/P)

Recommendation #4. Evaluate the BMS design, to allow a relight of the furnace if the temperature is above 1400°F and a flow is established.

Assigned to: PMCSD

Finding #5. If the DFS AFB could be isolated from the kiln remotely by the DFS CRO in the CON in a timely manner, then it is probable that the DFS CRO would have done so. If the DFS AFB had been isolated from the kiln during the attempts to troubleshoot the flue gas flow meter and relight one burner in the DFS AFB, there would have been no release of chemical agent from the common stack. (EXHIBIT K)

Recommendation #5. Incorporate ECP TEAC505JLL to install an isolation system that would allow the CON to remotely isolate the AFB from the kiln during upset conditions. This design would be consistent with the other three baseline CONUS sites (Pine Bluff, Umatilla, and Anniston Chemical Agent Disposal Facilities).

Assigned to: TOCDF Field Office

Finding #6. PLC automatic system response to a loss of DFS purge contributed to the difficulties during the recovery of the DFS upset. (EXHIBIT A/M/P)

Recommendation #6. Modify the response of the control system so that an operator action is required in order to configure the DFS to initiate system purge.

Assigned to: PMCSD

Finding #7. The automatic response of the control system distracted the DFS CRO from performing other recovery procedures. If the DFS CRO had not controlled 16-TIC-092 CV manually and reduced the CV from 100% to 10%, the automatic response of 16-TIC-092 would have contributed to the DFS system upset. (EXHIBIT A/M/P)

Recommendation #7. Modify the response of the control system so the 16-TIC-092 CV is set to zero whenever neither AFB burner is lit. Modify the response of the control system so that when either AFB burner is first relit, 16-TIC-092 gradually controls the AFB temperature from the temperature at the time the burner is lit to the temperature SP.

Assigned to: PMCSD

Finding #8. Common stack and duct exhaust gas sampling probes are subject to contamination, which was not detected under current inspection procedures.

Recommendation #8. The entire length of Stack/PAS Duct sampling probes should be tested at least weekly to verify agent transfer capability.

Assigned to: PMCSD

Finding #9. The high velocity of the flue gases decreased the agent destruction efficiency. The high velocity of the flue gases contributed to the release of chemical agent out of the common stack. (EXHIBIT P)

Recommendation #9. Provide a method for the CRO to be able to monitor the DFS/DFS PAS as a single system so that flow and pressure excursions can be more readily identified and corrected. Possible solution would be the development of a single Advisor screen that contains all of the necessary pressures, temperatures and flows for the DFS/DFS PAS.

Assigned to: PMCSD

B. Operations/Procedures

Finding #10. NNOPs, prepared in accordance with *Non-Normal Procedure Development, Revision and Deletion*, Revision 0, Change 2, 3 September 1999 (PRP-MG-010), do not fully address the requirements of operating procedures or provide the necessary detail. (AR 385-61, paragraph 2.4.e, DA Pam 385-61, paragraph 6.3.a, and PMCD-R 385-1, paragraph 8.) (EXHIBIT H/I)

Recommendation #10. Revise the Non-Normal Procedure Process (PRP-MG-010) to assure that these procedures fulfill the essential elements of an operating procedure in accordance with AR/DA Pam 385-61, DA Pam 385-64, and PMCD-R 385-1, to include a complete and accurate hazards analysis.

Assigned to: TOCDF Field Office

Finding #11. The hazard analysis for Non-Normal Procedures, prepared in accordance with PRP-MG-010, did not completely and accurately assess the risk of the operation to assure appropriate mitigation. (EXHIBIT H/I)

Recommendation #11. Assure that procedures are not applied to operations beyond the original intent or the scope of the supporting hazard analysis.

Assigned to: TOCDF Field Office

Finding #12. The Non-Normal Procedure being implemented to clean the DFS ECR-B feed chute the evening of 8 May 2000 (DFS-011-01) had not been prepared for that specific operation. (EXHIBIT H)

The DFS feed chute cleaning operation being conducted the night of 8 May 2000 had been performed on a recurrent basis (at least twice in the previous three months).

Recommendation #12. Cleanout procedures for DFS feed chutes should be formally prepared as an appropriately detailed, validated standalone procedure or incorporated into an existing procedure. The procedures should incorporate all essential elements of AR/DA Pam 385-61, DA Pam 385-64, and PMCD-R 385-1 with a thorough hazard analysis conducted in accordance with PMCD-R 385-1 and individuals who will perform the operations trained.

Assigned to: TOCDF Field Office

Finding #13. The organization of TE-SOP-004 required the CRO to hunt through the document to find those sections appropriate for the on-going situation. (EXHIBIT M)

Recommendation #13. The format/organization of SOPs used in the Control Room (CON) should be reassessed to assure critical information is presented in a readily accessible timely manner, in accordance with PMCD-R 385-1, paragraph 8.

Assigned to: TOCDF Field Office

Finding #14. Procedures at CAMDS authorized the B (backup) DAAMS sampling tube to be desorbed without analysis whenever the A tube was determined not to have detected agent above the LOQ. (EXHIBIT M)

Recommendation #14. Procedures should be established to assure that B tubes from DAAMS perimeter monitoring stations are retained for later analysis if the results of the A tube indicate a peak within the agent gate, but less than the instrument's LOQ.

Assigned to: CAMDS/PMCD

Finding #15. TE-SOP-004 R4,C0 (DFS Operations) was approved 26 April 2000; TE-SOP-004 R4,C1 had been approved 17 April 2000. A change to a Standing Operating Procedure was approved before the basic document was approved. (EXHIBIT Q)

Recommendation #15. Reassess the process by which procedures are reviewed/ approved, with specific attention to the sequence in which changes are approved/ incorporated.

Assigned to: TOCDF Field Office

Finding #16. The DFS operating procedure TE-SOP-004, does not address the situation in which a hot relight of the DFS AFB may be required. The DFS CRO was required to follow the normal restart procedures during the accident. (EXHIBIT M/Q)

Recommendation #16. The SOP should be changed to allow the DFS CRO to perform a restart of the DFS when the furnace has flow and temperature in accordance with National Fire Protection Association Standards. The SOP should also contain enough detail to assist the CRO during upset conditions.

Assigned to: TOCDF Field Office

Finding #17. The PAS is designed to remove acid gases from incinerator exhaust and is not designed or intended to destroy chemical agent; however, the alkalinity of the solution will react with GB, if present. If the clean liquor flow had not been stopped, the agent in the DFS flue gas flow system would have had increased contact time with the caustic in the clean liquor solution. If the clean liquor pump had remained running, the total amount of agent released from the common stack would have been reduced. (EXHIBIT A/P)

Recommendation #17. Ensure, by procedure, that clean liquor and quench brine flow is established whenever the ID fan or emergency ID fan is running. The Programmatic Lessons Learned Issue 96-662 identified the issue of ensuring that the clean liquor pump was operating when the induced draft fan is operating.

Assigned to: PMCSD

Finding #18. An excessive amount of water was added to the DFS feed chute. This water flashed to steam when it entered the high temperature environment of the kiln. This rapid generation of steam instantly upset the temperature – pressure relationship and contributed to the perturbations of the DFS pressures and flow rates. (EXHIBIT P)

Recommendation #18. Modify chute cleaning procedure to eliminate excess water.

Assigned to: TOCDF Field Office

Finding #19. The inability of the DFS CRO to maintain DFS pressures adequately after the execution of NNOP DFS 0112 to clean debris from the DFS tipping valve was a contributing factor to the release of chemical agent out of the common stack. (EXHIBIT A/P)

Recommendation #19. Provide the necessary troubleshooting skills by training all furnace operators in the proper techniques for using both the ID fan inlet damper and the venturi plug valve to control system flow and pressure after a furnace upset.

Assigned to: PMCSD

Finding #20. The amount of time required to obtain approval of a temporary change during an upset is excessive. During the night of the accident, the temporary change to bypass the flue gas flow meter required over 30 minutes. (EXHIBIT M/S)

Recommendation #20. The temporary change procedure should be reviewed to ensure it is responsive to the operators' needs. People required to sign indicating approval of the temporary change should be available on site 24 hours a day. Common and routine temporary changes should be incorporated into a procedure.

Assigned to: TOCDF Field Office

Finding #21. The CROs are using uncontrolled drawings at their workstations. Controlled drawings can not be reproduced for use in operating the plant as per Review and Distribution of Documents (PRP-DC-008). (EXHIBIT M)

Recommendation #21. The drawings required by the CROs should be controlled under the Receipt and Storage of Records and Reference Documents (PRP-DC-004). The drawings should be stored at the CRO's workstation and should only be those drawings that pertain to the CROs specific operation.

Assigned to: TOCDF Field Office

C. Management/Personnel/Training

Finding #22. The lack of overall system knowledge and experience of the shift on duty the night of the accident contributed to the release of chemical agent out of the common stack. (EXHIBIT M)

Recommendation #22. Periodically review the experience level of the four shift teams. Reassign the workforce to ensure that each shift is equally qualified to safely operate the TOCDF.

Assigned to: TOCDF Field Office

Finding #23. The certification process for CON operators does not include refresher training. During the accident, the ability of the control room operator to react to a dynamic situation was degraded by the lack of experience. The experience in controlling any of the furnaces during an upset condition is accomplished during their initial training at the CDTF. (EXHIBIT M)

Recommendation #23. The normal certification process for a CON operator starts with some initial training at the CDTF. This training provides the operator with a basic set of skills required to operate the systems he/she is expected to operate. During the training at

the CDTF, the operator is tested on his ability to handle a variety of system conditions, to include system upset. After this training, the operator is sent to the site for on the job training. The on-site training can not provide the contingency training required to maintain proficiency should an upset occur.

To maintain operator proficiency in contingency training, a PC based simulator should be installed on site. The simulator training could be incorporated and managed under the current on-site training program. The training should be accomplished on a frequent enough basis to allow operators to maintain proficiency in contingency operations. The training may be self-paced or facilitated.

Assigned to: PMCSD

Finding #24. The DFS CRO did not demonstrate a detailed working knowledge of the DFS. This was demonstrated by his inability to control the two devices used to maintain furnace pressure within tolerance. (EXHIBIT A/P)

Recommendation #24. The DFS CRO had not been tested on his working knowledge of the DFS for about one year. The operator had completed his required training and was not required to attend any further training. The TOCDF should consider formal training on site or refresher training at the CDTF. This training should be adaptable to the requirements of the individual receiving the training.

Assigned to: TOCDF Field Office

Finding #25. A lack of DFS operating expertise and poor communications in the control room contributed to the release of agent from the common stack. (EXHIBIT M)

Poor communications in the CON and the resulting lack of early awareness by the Plant Shift Manager contributed to the release of agent from the common stack.

Recommendation #25. Routinely provide team building and communications skills training to the CON crews.

Ensure that the Plant Shift Manager has the necessary skills and knowledge to identify and troubleshoot overall plant system upsets.

Assigned to: TOCDF Field Office

D. Observations

Observation #1. During the DPE entry to ECR B, 8 May 2000, an entrant's air hose was allowed to lie directly above the hot upper feed gate, which could compromise the material.

Recommendation #1. Procedures should be established to assure that DPE airlines are not routed across the DFS upper feed gate.

Observation #2. TOCDF has not implemented PMCD Policy Statement 57, *Medical Evaluations for Potential Exposure at Chemical Demilitarization Facilities (CDF) and the Chemical Agent Munitions Disposal System (CAMDS) – Department of Army Pamphlets (DA PAMs) 40-8 and 40-173*, dated 29 December 1998. (EXHIBIT J)

Recommendation #2. PMCD Policy Statement 57, dated 29 December 1998, should be fully implemented at TOCDF.

Observation #3. The time stamp on the videotape documenting the DPE entry conducted beginning approximately 2010 hours, 8 May 2000, is incorrect by about five hours; the time stamp shows times beginning about 1420 hours. These videos are useful for training, accident investigation/prevention, system analysis, etc.; the confusion caused by mislabeling degrades their usefulness.

Recommendation #3. Videotape recorders in the CON should be frequently tested to assure the date stamp being applied is accurate.

Observation #4. The Personnel Training Plan does not accurately reflect the training needs of all personnel.

Recommendation #4 Revise the PTP to accurately reflect required training for all positions.

GLOSSARY

Term	Definition
ACAMS	Automatic Continuous Air Monitoring System (based on gas chromatography)
AFB	Afterburner – The secondary chamber of a CSDP incinerator; the exhaust from the primary chamber is further exposed to high temperature to assure agent destruction
AQS	Agent Quantification System
AR	Army Regulation
ASC	Allowable Stack Concentration – for GB, 0.0003 mg/m ³
BMS	Burner Management System
CAL	Chemical Agent Laboratory
CAMDS	Chemical Agent Munitions Disposal System
CCTV	Closed Circuit Television
CDC	Centers for Disease and Prevention
CDTF	Chemical Demilitarization Training Facility
CHB	Container Handling Building
CON	Control Room
CONUS	Continental United States
CRO	Control Room Operator
CSDP	Chemical Stockpile Disposal Project
CV	Control Variable; a signal to a control device (e.g. how far open/closed)
D ² PC	Downwind Hazard Prediction Modeling Program
DAAMS	Depot Area Air Monitoring System (based on gas chromatography in the lab)
DA Pam	Department of Army Pamphlet
DCD	Deseret Chemical Depot
DFS	Deactivation Furnace System (destroys explosive components of munitions & residual agent; thermally decontaminates metal parts of rockets & mines)
DPE	Demilitarization Protective Ensemble (fully encapsulating suit, supplied air)
DSA	DPE Support Area
ECP	Engineering Change Proposal
ECR	Explosive Containment Room (room where explosive components are disassembled; built to contain the effects of an explosion)
FPD	Flame Photometric Detector
GB	Isopropyl Methylphosphonofluoridate (Nerve Agent)
GP	General Physics Corporation
GPL	General Population Level
HDC	Heated Discharge Conveyor
ID Fan	Induced Draft Fan

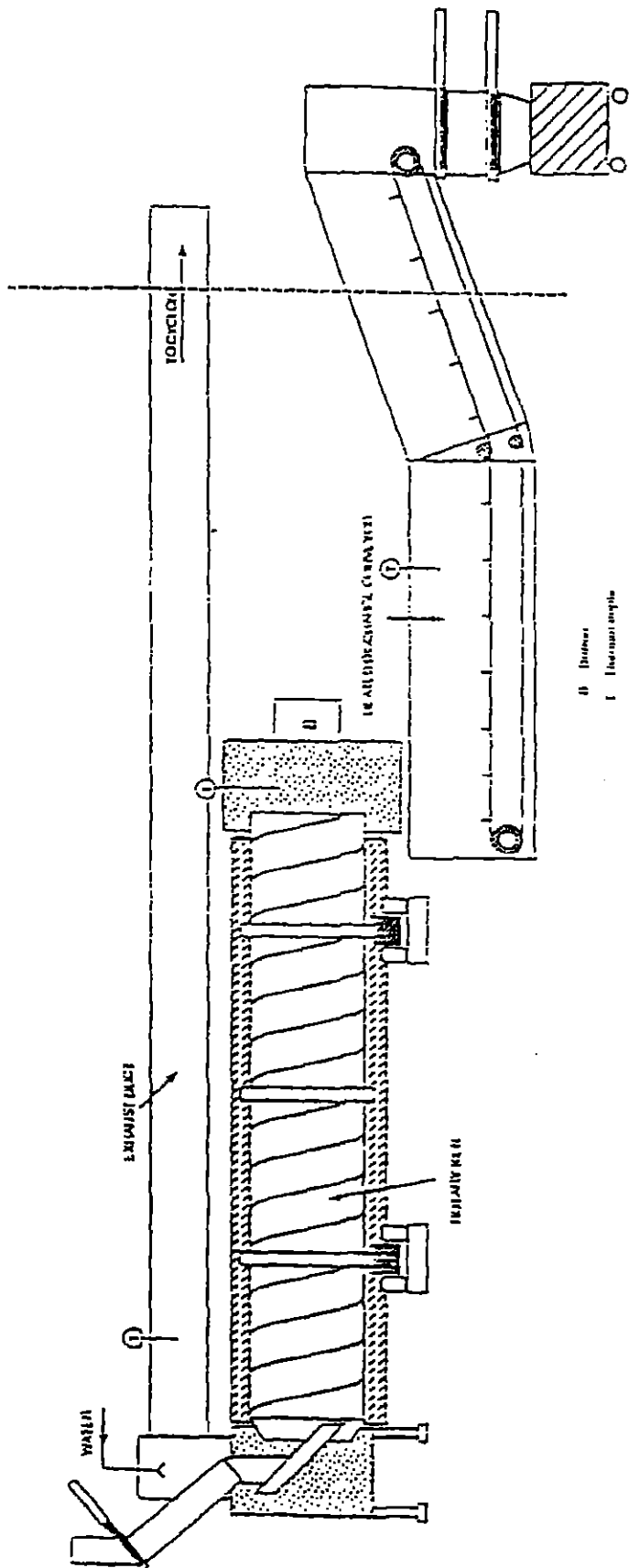
GLOSSARY (Cont'd)

Term	Definition
SOP	Standing Operating Procedure
SP	Set Point
TOCDF	Tooele Chemical Agent Disposal Facility
UMC	Upper Munitions Corridor
UPA	Unpack Area
U.S.	United States
USANCA	U.S. Army Nuclear and Chemical Agency
USATCES	U.S. Army Technical Center for Explosives Safety
WC	Water Column – inches of water column is a pressure measurement (the force required to raise a column of water one inch)

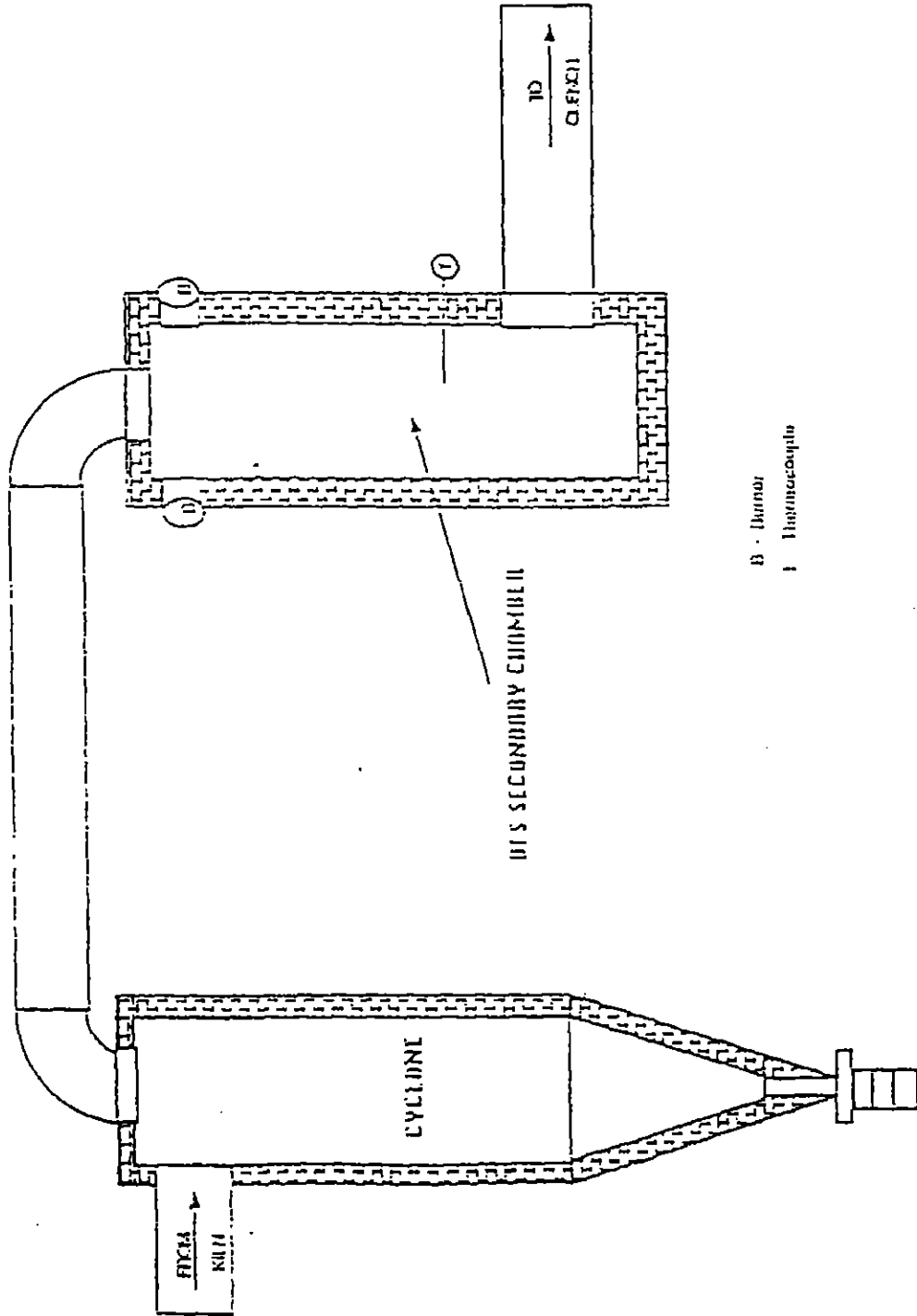
EXHIBIT K

PROCESS DIAGRAMS

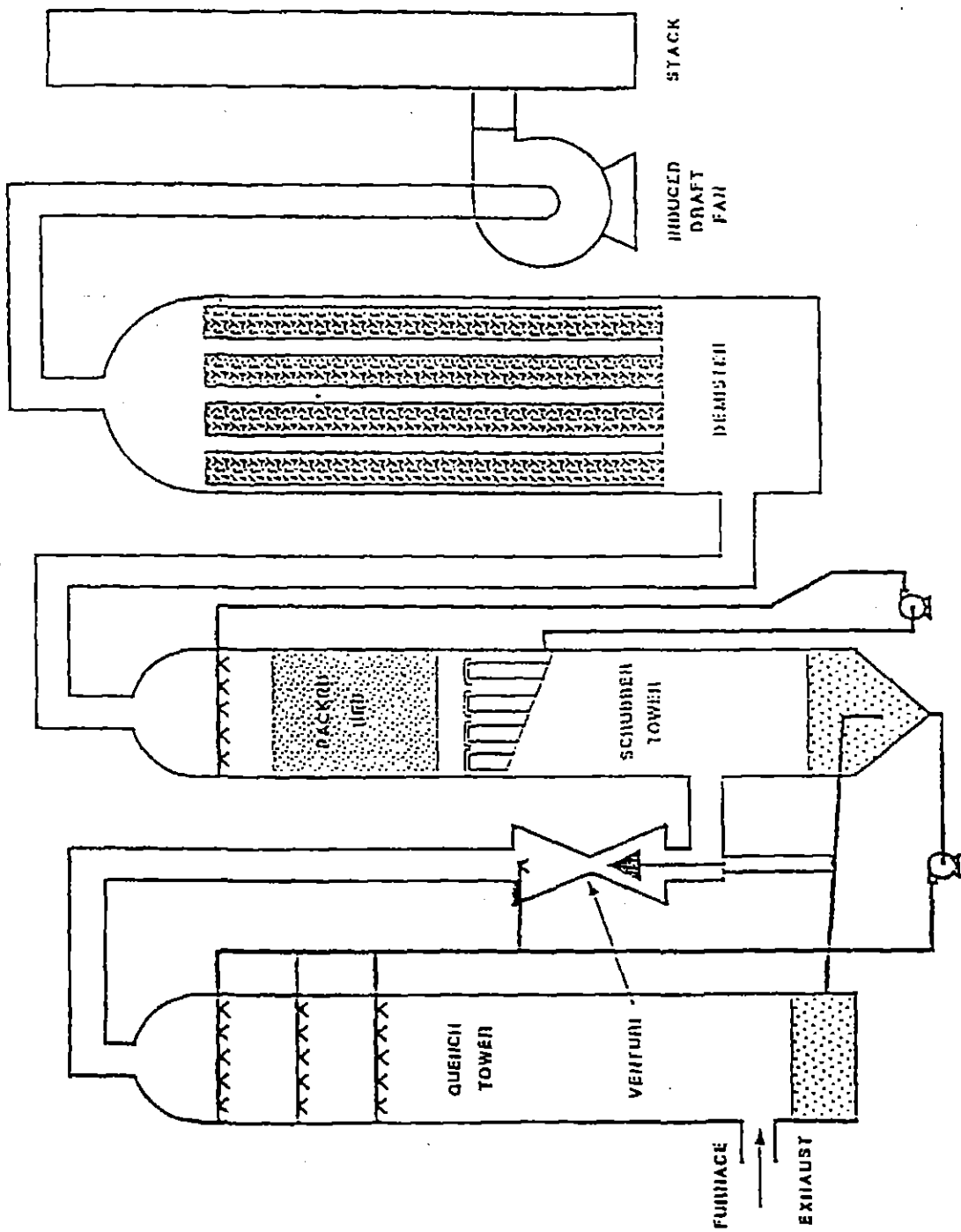
- 1. DFS SCHEMATIC**
- 2. DFS**
- 3. DFS CYCLONE & AFTERBURNER**



DEACTIVATION FURNACE SYSTEM



B - Burner
I - Thermocouple



POLLUTION ABATEMENT SYSTEM

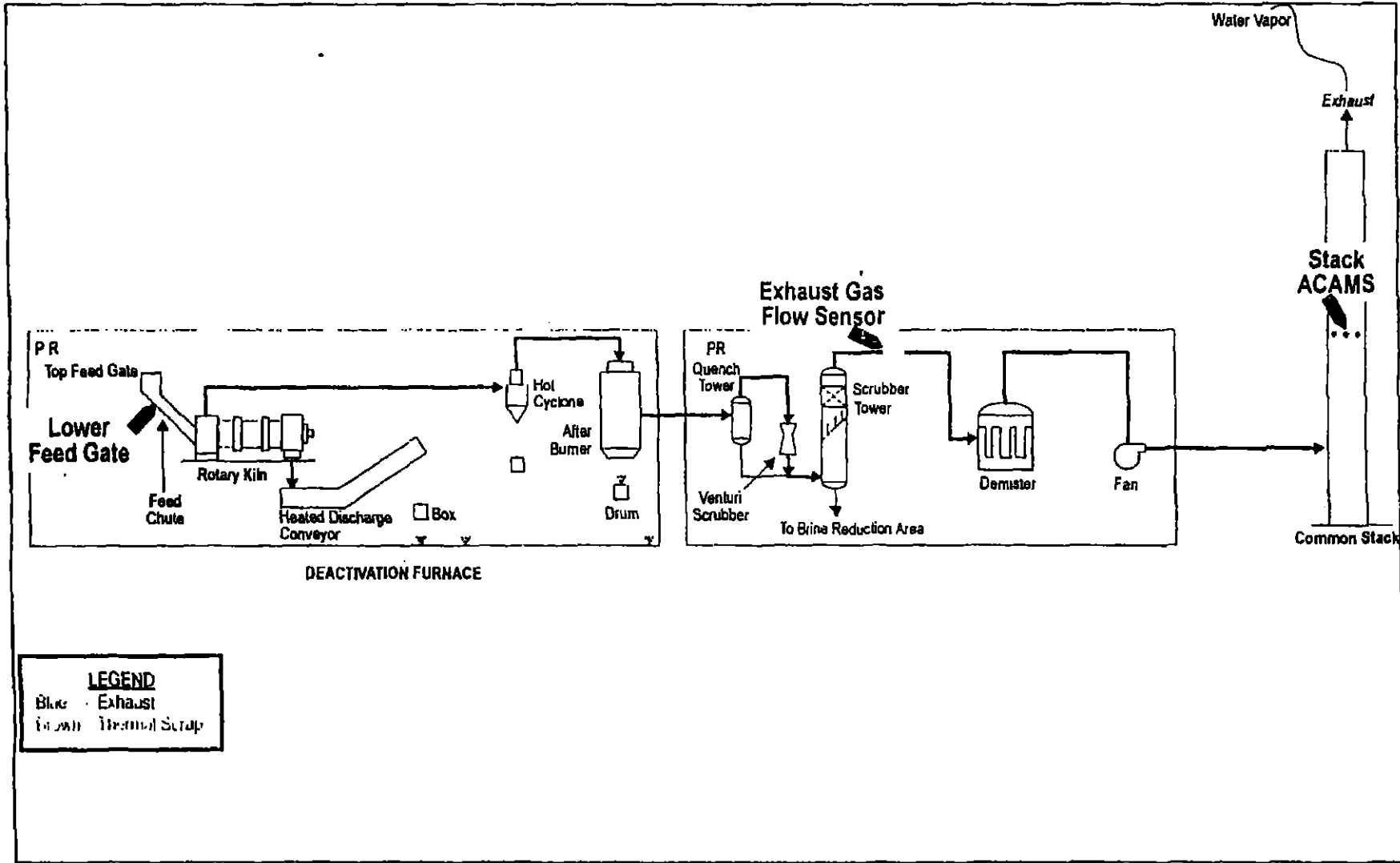


EXHIBIT M

SUMMARY OF INTERVIEWS

EXHIBIT M
SUMMARY OF INTERVIEWS

During the investigation into the cause of the agent release from the Tooele Chemical Agent Disposal Facility (TOCDF) Common Stack, 8-9 May 2000, a number of personnel were interviewed to gain insight into the events. The following summarizes the discussions with these personnel:

Personnel Interviewed:

Mike Greene
Mike Twitchell
Monica Lozano
Matt Elwell
Ducie (Chris) Chads
Sam Guello
Randy Roten
Mike Medina
Jeff Jolley
Steve O'Neill
Kemla Siddoway
Kent Wilson
Stan Garcia
Dave Lee
Corey Christiansen
Kory Clark

Summary:

Two people made a Demilitarization Protective Ensemble (DPE) entry the evening of 8 May 2000 to clean the Deactivation Furnace System (DFS) feed chute from Explosive Containment Room (ECR) B in order to free a sticking lower tipping valve, to clean the Agent Quantification System (AQS) strainer, and, if time allowed, to perform remaining preventive maintenance on the Rocket Shear Machine (RSM). They had previously made about 150-200 entries each. Both had previously performed chute cleanouts, the most recent being about one month previously.

The entry began with a pre-entry meeting which included a discussion of the Non-Normal Procedure (NNOP) that would be used to accomplish chute cleaning. When they checked the feed chute, the lower tipping valve was no longer stuck. The chute seemed clean, but there was some material built up on the sides and in the lower corners of the rectangular duct. The material resembled damp flour. There was no water available to perform the cleaning operation at first; it required changing a ball valve near the hose reel outside the ECR. The entrants attempted to use the droplight in the ECR to get a better view of the area to be cleaned. The droplight did not work and had to be replaced. A

hose clamp on the water line had to be replaced. Once these activities were completed, water was sprayed into the chute from the water lance for about 90 seconds (about 20 gallons was estimated). The lance is a 10 ft. long piece of about 1" pipe with the open end slightly flattened.

The entrants left the ECR while the DFS operator opened both gates in the feed chute. When they looked into the feed chute, it was basically clean; some glowing embers were visible near the bottom of the chute; one entrant speculated that the embers could have been material that came off the tipping valve. One entrant recalled seeing water from the chute sprays.

The DPE entrants said that the chute cleanout operation was being conducted according to a NNOP, but they couldn't recall the number. They said that the DPE controller that evening was pretty thorough in walking them through the procedure. They felt the procedure was accurate and adequate for their needs. They know there is a process for suggesting changes to regular procedures, but have not ever suggested any; they did not know if this kind of process exists for NNOPs. There was no special training provided to them for this NNOP, but they discussed it at the pre-entry meeting. There is no read and sign, qualification, certification process for NNOPs like there is for regular procedures.

When the strainer was changed, about 1 lb. of material (fiberglass contaminated with agent) was removed. This material was placed on the gate to be cycled into the DFS.

The entrants did not think this entry was unusual in any way. This evening was their shift's fourth consecutive.

The Plant Shift Manager (PSM) felt that the beginning of the shift was very normal. He was aware of the DFS chute maintenance activities to be performed and was coordinating with the Unpack Area to ensure that the M56 warheads were being uploaded into the shipping and firing tubes for processing through RSM-102.

During DPE entries, one Control Room Operator (CRO) is dedicated to controlling the entry – assuring the Standing Operating Procedure (SOP) is followed, monitoring the activity, serving as the control room liaison, etc. The CRO fulfilling this responsibility had been a certified CRO for four years and is currently certified to operate the Liquid Incinerators, the DFS, and the Metal Parts Furnace, and their associated Pollution Abatement Systems, all utility systems, and the Bulk Drain System. He is the most experienced DFS CRO on A-Team. The entry controller attended the pre-entry brief; he had controlled entries for chute cleanout before. Upon returning to the control room, he briefed the DFS CRO (the individual who was operating the DFS) and provided a copy of the NNOP to the DFS CRO. The Acting Control Room Supervisor (SCRO) had about eight years of experience in the TOCDF control room; the PSM had been employed at TOCDF for about two years and was in the current job for about five months.

The entry CRO felt that the NNOP was not very specific, was not very detailed, and thinks it was not sufficiently adequate and accurate. At the pre-entry meeting, he noted an error with it having to do with a closed circuit television camera. He said that there is no specific training provided for use of a NNOP and there is no sign-off for NNOPs; copies were provided at the pre-entry meeting. He recalls the NNOP was DFS-011, but can't recall whether it was DFS-011-01 or not.

The entry CRO operator thinks that people using this procedure have to read into it to get it right. Following it specifically will cause problems, especially if both gates are open at the same time. Having both gates open at once isn't so much a personnel hazard to the entrants, since the flows have been adjusted to assure flow is into the furnace from the room, but it presents a plant problem. The entry CRO (who has acted as the DFS CRO during similar operations) feels the furnace needs to be operated in manual for an operation of this type, since the automatic control won't work, and this isn't noted in the procedure.

The entry CRO had responsibility to ensure the proper execution of the NNOP and to ensure proper communication between the entrants and the CON, especially with the DFS CRO. At one point during the entry, the entry CRO noticed that, with the tipping valve and the slide gate both open, the DFS AFB pressure was indicating -7.0 "water column (WC). The entry CRO notified the DFS CRO of the excessive negative pressure and warned the DFS CRO to be careful not to exceed the current limits on the Identification (ID) fan. The DFS CRO was responsible for maintaining pressures and flows in the DFS.

The entry CRO indicated that when both the tipping valve and the slide gate were closed at the end of the entry, the furnace system was drawn to an even more excessively negative pressure.

With the entry complete, the entry CRO was able to assist the DFS CRO with recovery activities; the SCRO had determined that since there was no (recognized) source of agent in the DFS, this was an opportune time for the DFS CRO to gain experience on procedures to recover the DFS from upset conditions. (The PSM agreed with the SCRO to allow the inexperienced DFS CRO to continue with these recovery procedures.) They diagnosed the flue gas flow meter failure and requested that a Instrumentation Technicians (ITs) be called in to troubleshoot. The ITs were able to get the flue gas flow meter to begin reading again, intermittently, and 24-FSLL-430 (low exhaust flow) cleared. The DFS CRO was able to purge the system and begin to re-light one afterburner burner.

The common stack Automatic Continuous Air Monitoring System (ACAMS) 701 C and 701 A alarmed during this purge. Control Room personnel believed that the DFS was free of agent because they had not processed any rockets or waste for several hours. The alarms were assumed to be due to an interferent, as stack alarms had always been in the past.

During the light-off procedure, 24-FSLL-430 re-activated and locked out the burner and dropped system purge.

When ACAMS 702 alarmed, the decision was made by Acting SCRO to bottle up the DFS.

The control room made the decision to try to re-establish purge and get one afterburner lit to ensure that the DFS afterburner had sufficient heat to maintain destruction efficiency. The PSM indicated that the SCRO had requested a Temporary Change to install a jumper to bypass 24-FSLL-430. The PSM approved installation of the jumper once all of the required signatures had been obtained. ITs were instructed to jumper around 24-FSLL-430 so that a re-light could be attempted.

The second stack ACAMS alarm and DFS duct ACAMS alarm activated during the second purge and re-light attempt. The burner attempted to light, but a "3 to P" interlock locked out the burner again. The control room bottled up the DFS a second time.

Monitoring personnel stated that the ACAMS appeared to have functioned properly and that the Depot Area Air Monitoring System (DAAMS) data very definitely indicated the presence of GB. They identified a mislabeling problem with the confirmatory DAAMS that may have contributed to the initial confusion in the control room regarding the source of agent, but this error was quickly rectified. They also noted that the B tubes for all perimeter monitoring stations had been desorbed without analysis, since no A tube had indicated positive for agent.

A safety engineer with a little more than two years experience at TOCDF was involved in the hazard analysis process for the NNOP which was being executed to clean the DFS Feed Chute. His time at TOCDF has basically all been spent in the general area of performing hazard analyses. Before coming to TOCDF he had worked at a number of chemical process plants, including a sulfuric acid plant, a chlorine plant, a caustic plant, an oil refinery, etc.

The safety engineer said there is a Project Regulatory Procedure (PRP) which describes the process of assessing the risks for NNOPs, which is described in PRP-MG-010. The process is applied to short fuze, test program types of activities. He thinks that plugging of the feed chutes/hanging of the tipping valve is a fairly typical problem of the feed chutes.

The safety engineer stated that the hazard evaluation for DFS-011-01 didn't address agent hazards because it had been written for an activity to be conducted in ECR A. Agent levels in ECR A are very low, since the item which has been processed through that ECR is the fuze and burstered M360 projectile. The operation in the ECR doesn't access the agent cavity of these rounds, and agent has not been detected in this room. Because of this, the possibility for agent exposure was considered minimal.

The safety engineer described the purpose of a Risk Assessment Code (RAC), as he understands it, is that it looks at the worst case scenario and is an assessment of what circumstances could occur. Once mitigating actions have been implemented, a second RAC is assigned to reflect that fact. He doesn't really know why RACs aren't assigned to risks identified in the hazard evaluation of NNOPs, but noted that the PRP doesn't require it. NNOPs are really only intended to be quick and dirty, and there is a presumption that hazards with a high severity are not involved.

The safety engineer has been involved in the validation of SOPs in the past, which has often involved operators performing with simulant munitions. No similar process is usually applied to NNOPs, which are normally fairly simple. He felt that it usually takes a couple of days from beginning to prepare an NNOP until it is fully approved for use. An exception to this is the NNOP for the Munitions Demilitarization Building flow straightener removal; the process actually took an extensive amount of time to develop. The safety engineer doesn't think that operator input is necessarily or formally obtained during development of NNOPs. The safety engineer feels that the hazard analysis/risk assessment obviously depends on the procedure being used as it was written/assumed.

The safety engineer thinks TOCDF is the safest place he's worked, and that the evaluations conducted are the most rigorous he's aware of. He feels that the operators are well-trained.

The Acting Safety Manager has been employed at TOCDF since 1 May 1994. His position at that time was Industrial Hygiene Program Administrator. He has attended the University of Southern California System Safety Institute and various seminars, etc., on the topic. The job at TOCDF is the first one in which he's implemented the full scope of system safety. (Previous jobs involved safety programs for some military services.)

The Acting Safety Manager understands that the purpose of a RAC is to evaluate/predict the risk involved in an operation so as to allocate resources to mitigating the highest risks. He noted that hazard analyses performed by the contractor to support operations don't address hazards associated with manual (vs. automatic) control, however. The Acting Safety Manager thinks that the reason RACs aren't assigned to hazards identified in NNOPs is that the activity has already been determined to be acceptable. A RAC could be used to determine the need for a more in-depth analysis, though. The process for analyzing the hazards posed by a NNOP is largely informal and is more like a Job Safety Analysis than the Job Hazard Analysis required by the Program Manager for Chemical Demilitarization or the Process Hazard Analysis required by the Occupational Safety and Health Administration.

The Acting Safety Manager feels that the safety program at TOCDF works in general, and is challenging since it must deal with different hazards on a daily basis. He has had some difficulty influencing the spending of money, and feels that a RAC system is a good system to help with this. It doesn't address non-safety issues, though, so production,

environmental, security issues, etc. aren't assessed or necessarily perceived in the same fashion. He has sensed some resistance to some of his recommendations due to the effect these recommendations would have on the bottom line.

The Acting Safety Manager feels that TOCDF operators are very well educated, but are under-educated with respect to the expectations placed on them.

EXHIBIT O

CDC LETTER - EXPECTED HEALTH EFFECTS



Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724

Mailstop: F30
(770) 488-4024
Fax: 488-4820
May 18, 2000

RECEIVED

MAY 18 2000
00-02044
Division of Solid & Hazardous Waste
Utah Department of Environmental Quality

Post-it™ brand fax transmittal memo 7671 # of pages 2

To Cheryl Maggio	From Chris Bittner
Co.	Co.
Dept.	Phone #
Fax #	Fax #

Mr. Dennis R. Downs, Director
Division of Solid and Hazardous Waste
Utah Department of Environmental Quality
288 North 1460 West 4TH Floor
Salt Lake City, Utah 84114-4880

Dear Mr. Downs:

The Centers for Disease Control and Prevention (CDC) is directed by Congress to provide public health oversight of Department of Defense's chemical weapons disposal facilities. In this capacity, we were notified on May 9, 2000, about the release of the chemical agent GB on May 8th at the Tooele Chemical Agent Disposal Facility (TOCDF). CDC responded by dispatching a two-person team to begin an independent investigation of the incident. The purpose of this letter is to inform you about the scope of our ongoing investigation and to provide you with our preliminary assessment of the public health implications.

Our investigation will assess the public health risks to both workers at the facility and of residents of the surrounding community. We will review whether there were human or mechanical failures and examine the sequence of events that took place in response to the chemical agent release. This investigation will also focus on agent monitoring systems and examine the concentration of the release at ground level in order to evaluate the potential human exposure risk. Finally, we will provide our recommendations based upon our findings.

We have completed our on-site data collection at TOCDF and are now in the process of analyzing these data. It is difficult to forecast when we will complete the entire report of our findings, but we will make sure that you and your staff have a written copy of it upon completion.

In the interim, we believe that it is very important to provide you with our preliminary assessment of the health risks to the workers at the facility and residents in the surrounding community as a result of this release. It is our opinion that the release resulted in minimal to no exposure, and consequently, no adverse health or medical effects for either the TOCDF workers or the people in the surrounding community. To arrive at this determination, we used the best available data to run a "worst-case EPA- approved air dispersion model," which indicated that this release posed no short- or long-term threat to the health of people living in the vicinity of the

Page 2 - Mr. Dowds

TOCDF. We found that the maximum possible exposure to agent GB at ground level during this incident was under one percent of the Department of Health and Human Services (DHHS) acceptable safe level for such an exposure to the general public.

We also reviewed specific health implications for the site workers during the GB release. Our initial findings indicate that the air-monitoring alarm activation equipment operated in a timely and appropriate manner. The air dispersion model that we used was based on "worst-case parameters," including a meteorologic "downwash" option to determine maximum possible local agent concentrations. An examination of local meteorologic data during the release, suggests that downwash conditions (wind speed and direction conditions that result in very rapid movement of stack gases to ground level near the plant) would not have occurred for any significant duration; however, the option was run to define possible worst-case conditions. This conservative model estimated maximum agent concentrations that were well below the established occupational exposure limits. Considering potential exposure for the entire release period, the maximum possible exposure was again less than one-percent of the safe exposure amount for workers. In actuality, TOCDF workers masked within 5 minutes of the onset of the release; consequently, exposure would have been considerably less than the amount used for this analysis.

We appreciate the help and cooperation that your department has provided CDC during this and other interactions involving review of the chemical demilitarization activities in Utah. --
We would like to emphasize that as we work to continue our final analysis of this incident, we will alert you as soon as possible should we find new information about health implications for either workers or community residents. We take our oversight role seriously and want to ensure that worker and public health are protected. If you have any questions, please do not hesitate to call us.

Sincerely yours,

Kevin Yeskey M.D.

Kevin Yeskey, MD
Associate Director for Emergency Public Health & Science
Acting Director, Division of Emergency and
Environmental Health Services
National Center for Environmental Health

cc:

Rod L. Berit, Executive Director, Utah Department of Health
Richard Joseph Jackson, Director, NCEH

Tentative 2001 EQC Meeting Dates

January 11-12
 March 8-9
 May 3-4
 June 21-22
 August 9-10
 October 11-12
 December 6-7

2001

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY						
S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

OCTOBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Minutes are not final until approved by the EQC

Environmental Quality Commission Minutes of the Two Hundred and Eighty-Fifth Meeting

**July 13-14, 2000
Regular Meeting**

On July 13, 2000, the Environmental Quality Commission (EQC) traveled to Tillamook, Oregon to view several sites in the Tillamook Basin. In the evening the Commission had dinner with local officials at the Cedar Bay Restaurant. The regular meeting of the EQC was held on July 14, 2000, at the Department of Forestry Building, 4907 E Third Street, Tillamook, Oregon. The following Environmental Quality Commission members were present:

Melinda Eden, Chair
Harvey Bennett, Member
Tony Van Vliet, Member
Mark Reeve, Member
Deirdre Malarkey, Member

Also present were Larry Knudsen, Larry Edelman, and Michael Huston (by phone), Assistant Attorneys General, Oregon Department of Justice (DOJ); Langdon Marsh, Director, Department of Environmental Quality; 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.

Chair Eden called the meeting to order at 8:35 a.m. on Friday, July 14.

I. Action Item: Permit Revocation Request Related to the Umatilla Chemical Agent Disposal Facility (UMCDCF)

The Permit Revocation Request related to the Umatilla Chemical Agent Disposal Facility (UMCDCF) was discussed by the Commission on May 18, 2000. The Department recommended the Request for Revocation be denied. Because of the absence of Commissioner Bennett, the action on this item was delayed until this meeting. Wayne C. Thomas, Chemical Demilitarization Program Manager, and Larry Edelman, Assistant Attorney General, Department of Justice, presented the Draft "Order Denying Request for Permit Revocation" to the Commission. There was a brief discussion and confirmation that Commissioner Bennett had reviewed the material from the May 18 meeting (including a complete videotape) and was prepared to participate in the vote. Commissioner Van Vliet made a motion to deny the Request for Revocation. The motion was seconded by Commissioner Malarkey and it carried with five "yes" votes.

J. Informational Item: Update on the May Incident at the Chemical Depot at Tooele, Utah

Wayne C. Thomas, Chemical Demilitarization Program Manager, made an introductory statement and described the incident reports the Department had reviewed and sent to the Commission. Sue Oliver, Senior Hazardous Waste Specialist, briefed the Commission on an incident that occurred May 8-9, 2000 at the Tooele Chemical Agent Disposal Facility (TOCDF) in Utah.

At approximately 4:00 p.m. on May 8, 2000 a gate in a feed chute from an Explosive Containment Room (ECR) to the Deactivation Furnace System jammed and halted munitions processing at TOCDF. By approximately 8:00 p.m. a crew in protective clothing had entered the highly contaminated (GB nerve agent) ECR and freed the gate. The operators on duty that evening were not able to bring the furnace back to normal operating conditions and through a series of errors, oversights, and miscommunication, the evening culminated in two detectable releases of chemical agent vapor from the stack of the facility (one at approximately 11:30 p.m. and another about half past midnight). There are numerous ongoing investigations into the incident.

The Department did not consider the event a failure of the baseline incineration technology, but a failure in management, procedures, and training. DEQ is concerned about the apparent failure of the Army's "Programmatic Lessons Learned" Program; the high rate of "false positives" from the chemical agent alarms that led the TOCDF operators to discount the monitor alarms (even in the face of confirming evidence that the alarm was valid); the lack of program integration in the Army's chemical demilitarization program; and the failure to notify the off-post emergency response community until four hours after the first release.

The Department has written a letter to Mr. James Bacon, the U.S. Army Program Manager for Chemical Demilitarization, and requested a response by September 11, 2000. The primary question posed to Mr. Bacon was "Who is responsible for the integration of all operations at Demilitarization facilities and what assurances do the citizens of Oregon have that the lessons learned from this event and any previous events will be applied to Umatilla?" Mr. Bacon was also asked to explain how the various recommendations in the reports would be implemented at Umatilla.

The Commission directed the Department to return to the September Commission meeting to report on the Army's response to the letter and to update the Commission concerning ongoing investigations of the incident.

A. Rule Adoption: Rule Revisions Regarding Contested Case Hearings and Public Records

Susan Greco, Rules Coordinator, presented the proposed rule changes to the Commission. The rules effect four different areas of the Department's rules. First it adopts permanently temporary changes made in February. Included in the temporary changes was the adoption of the most recent changes to the Attorney General's Model Rules and the Attorney General's Hearing Panel rules. Under the Hearing Panel Rules, the Department has no discretion to change these rules except where the Rules specifically allow those changes. The Department has, in five instances, adopted its own rules or limited the availability of procedures under the Hearing Panel Rules. These include defining the methods of service of documents as being either mail or personal delivery; defining what needs to be included in an answer; not allowing special procedures such as immediate review and motions for ruling of legal issues; limiting public attendance at contested case hearings, and providing the procedures for review by the Environmental Quality Commission. This rulemaking also makes one minor housekeeping change to Division 012. Also it makes various housekeeping changes to the public record rules of the Department. Among these changes includes an increase in the amount the Department will charge for hourly staff time - from \$18.00 to \$30.00 and \$26.00 to \$40.00. This increase reflects the increase in costs since the rules were adopted in 1994.

A motion was made by Commissioner Malarkey to adopt the rule amendments contained in Attachment A of the staff report. Commissioner Van Vliet seconded the motion and it carried with five "yes" votes.

H. Consideration of Tax Credits

Maggie Vandehey, Tax Credit Coordinator; Helen Lottridge, Management Services Division Administrator; and Michael Huston, Assistant Attorney General (by phone); presented Tax Credit Application 4570 (Willamette Industries). A transcript of the discussion of this tax credit is attached. Commissioner Van Vliet abstained from discussion of this tax credit due to a conflict of interest.

A motion was made by Commissioner Bennett to deny the tax credit. It was seconded by Commissioner Malarkey and carried with four "yes" votes. Commissioner Van Vliet abstained.

Ms. Vandehey presented nine additional tax credits and noted no outstanding issued.

App.No.	Media	Applicant	Commission Action			Value
			Removed From Agenda	Certified Cost	Percent Allocable	
Approvals – Attachment B						
5330	USTs	Guernsey Development, Inc.		\$134,312	92%	\$61,784
5363	Solid	United Disposal Service, Inc.	X			
5365	USTs	S.M.B. Property Holdings, LLC		\$125,652	86%	\$54,030
5401	USTs	Ivy's Tumalo Store		\$148,426	93%	\$69,018
5405	Air	Blount, Inc.		\$44,925	100%	\$22,463
5407	Perc	Arena Corporation dba Westlake		\$25,530	100%	\$12,765
5410	USTs	Everett E. Miles		\$148,426	93%	\$69,018
5411	Water	Package Containers, Inc.		\$47,270	100%	\$23,635
5412	USTs	Cain Petroleum, Inc.		\$242,209	100%	\$121,105

APPROVALS

Commissioner Bennett asked for clarification on the claimed facility on application 5363. He noted the Facility Identification only listed collection containers but a truck was discussed in the report. Ms. Vandehey said the truck serviced the containers. She did not know if the inclusion of the truck was correct and asked that the application be removed from the agenda for the reviewer to clarify the description of the facility.

Commissioner Malarkey moved for the approval of the above tax credit applications minus application 5363. Commissioner Van Vliet seconded the motion. The vote carried with five "yes" votes.

TRANSFER

Miller's Sanitary Service, Inc. requested the transfer of Certificate 4063 issued on December 11, 1998 be transferred from Miller's Sanitary Service, Inc. to USA Waste of Oregon, Inc.

Commissioner Bennett moved approval of the transfer. Commissioner Malarkey seconded the motion and it carried with five "yes" votes.

Ms. Vandehey, as directed by the Commission, included a draft discussion topic on Deadline for Filing. She said she would be publishing the document, posting it on the website and providing it to Associated Oregon Industries for inclusion in a letter to their members. Chair Eden asked about the status of a premier. Ms. Vandehey noted the draft topic on Deadline for Filing as being part of that premier. Chair Eden indicated she was not hoping for separate documents but an abbreviated and comprehensive pamphlet or booklet. A Commission document rather than an applicant document would be a great service to the Commission.

Public Comment: There was no public comment.

B. Rule Adoption: Adoption of Federal Hazardous Waste Regulations Effective Through April 12, 2000

Mary Wahl, Waste Prevention and Management (WPM) Division Administrator, Anne Price, Hazardous Waste Policy and Program Development Manager, and Gary Calaba, WPM staff, presented this item. These federal rules regulate hazardous waste combustors; facilitate hazardous waste cleanups; clarify or technically change existing universal waste rules, organic air emission standards and land disposal restrictions; and allow metal bearing sludge to be accumulated for recycling.

Because of a comment received, the proposed changes to the toxics use reporting schedule were withdrawn, but would be reconsidered should opportunities for streamlining the toxic use reduction reporting schedule arise. All other comments dealt with the decision not to adopt the federal rule, excluding dredged materials from the definition of hazardous waste. The decision was based on the

desire to maintain flexibility to apply the regulations, if needed; and the Department is still evaluating the best way to holistically manage hazardous dredged materials, and eliminating the application of the hazardous waste regulations to dredged materials would be premature.

Commissioners requested clarification on how Washington state's implementation of the dredged materials exclusion will affect Oregon; and why EPA was excluding from hazardous waste regulation landfill leachate containing hazardous petroleum refining wastes. Washington state's adoption of EPA's dredged materials exclusion from the definition of hazardous waste should not affect Oregon, but that DEQ will talk to Washington state to determine exactly how they are implementing the exclusion. Concerning the [temporary] exclusion from the definition of hazardous waste landfill leachate derived from previously disposed petroleum refining wastes that are now defined as "hazardous waste," it was explained that such wastes may still be characteristically hazardous. The exclusion is only for leachate being managed under the Clean Water Act, and after February 13, 2001, the federal program no longer will allow the leachate to be placed on the land or managed in surface impoundments.

Commissioner Bennett moved the adoption of rules. Commissioner Van Vliet seconded the motion and it carried with five "yes" votes.

C. Rule Adoption: Amend Environmental Cleanup Rules Regarding "Hot Spots" and Use of Excavation and Off-site Disposal as Remedy

Paul Slyman, Environmental Cleanup Division Administrator, and Brooks Koenig, Senior Policy Analyst, presented this agenda item. The rule amendments were required by a rule change to ORS 465.315 (HB 3616 signed into law as Chapter 740). The rules went through numerous drafts and were reviewed and approved by the Environmental Cleanup Advisory Committee in March, 2000. There were no public comments received, and no one attended the public hearing.

Commissioner Malarkey expressed some concern about the threat to water resources if the rule amendments were adopted. It was explained that these rules applied to soil hot spots and if contamination reached water resources and adversely affected the beneficial use, the existing rules preferring treatment of water hot spots would still be in place.

When asked about the "higher cost threshold," staff explained there was no formula for determining the higher cost threshold. All remedies go through a number of balancing factors (effectiveness, reliability, implementability, implementation risk, and cost reasonableness) so one compares remedies against other remedies. With the new rules, excavation and off-site disposal is no longer at a disadvantage when cost is compared to treatment, but does have an advantage when compared to engineering or institutional controls.

Commissioner Bennett moved that the Commission adopt the amended rules as presented in Agenda Item C. The motion was seconded by Commissioner Malarkey and carried with five "yes" votes.

D. Rule Adoption: Adoption of National Emission Standards for Hazardous Air Pollutants (NESHAPS)

Jerry Ebersole, Air Quality (AQ) Program Development Section, provided a summary of the proposed rulemaking. This rulemaking updates Oregon rules to adopt revisions to NESHAPs that are already in Oregon rules, and to adopt 18 new NESHAPs. This rulemaking did not require an advisory committee since it is a straight adoption by reference. These standards apply to sources whether the EQC adopts them or not. Adoption simple transfers implementation from EPA to DEQ.

One of the new NESHAPs, for Hazardous Waste Combustors, will apply to the Umatilla Chemical Agent Disposal Facility (UMCDCF). This NESHAP is somewhat unique since it has cross media implications - the NESHAP overlaps with Umatilla's Resource Conservation and Recovery Act (RCRA) requirements. The Department's Eastern Region AQ and RCRA staff have been meeting regularly over the past year to coordinate the NESHAP and RCRA permitting issues as they relate to the Depot. Umatilla will not have to change the control equipment or physical design of the plan to comply. The remaining new NESHAPs will affect only 2 sources; Ash Grove Cement, and Simpson Timber.



A motion was made by Commissioner Van Vliet to approve the rules as presented in the staff report. The motion was seconded by Commissioner Malarkey and carried with five "yes" votes.

E. Rule Adoption: Low Income Waiver from Enhanced Emission Test

Ted Kotsakis, Manager of the Vehicle Inspection Program, and Jerry Coffey, Environmental Engineer, presented this item. This rule adoption makes permanent the low-income waiver program. The old rule expired in February, 2000 and in February, 2000 the Commission granted an emergency extension for six months. The impact of the low-income waiver on emissions reduction is negligible. The new rule differs from the old rule in that the new rule allows a customer to get the waiver more than one time, and the new rule requires proof of ownership and income. Commissioner Reeve asked if once the vehicle was waived from the enhanced test was it always waived from the enhanced test. Staff indicated the waiver was for the registration period only. Commissioner Bennett had two comments. The first was a question about the language that the Vehicle Inspection Program **may** revoke a waiver if the information provided was fraudulent. He wanted to know if it should not be **will** revoke. The second comment was over the language in the waiver rule, which states that "if the Department approves the waiver, the owner must pass the basic motor vehicle emissions test." He asked if it was the owner or the vehicle that was to be tested. Legal council stated that the customer may not know that the information they provide is fraudulent, therefore, we need to use the word **may**. Council also stated that the language of the rule could be changed to read "...the owner's vehicle must pass".

Commissioner Van Vliet moved the adoption of the rule with the one correction. Commissioner Malarkey seconded the motion and it carried with five "yes" votes.

F. Rule Adoption: Revisions to On-site Innovative Technology Rules

Ed Woods, On-site Manager, Larry Edelman and Larry Knudsen, Assistant Attorneys General, all addressed the EQC regarding this agenda item.

On the Department's recommendation, a motion was made by Commissioner Bennett for the EQC to reopen the public comment period until July 31, 2000 because comments received after the public comment period revealed potential weaknesses in the modifications made in response to comments. The additional comment period will allow additional comment on the specific changes recommended. Commissioner Reeve seconded the motion and it passed with five "yes" votes. A follow-up phone meeting of the EQC will be needed prior to August 27, 2000 when the temporary rule expires.

G. Informational Item: Public Participation Procedures for Permit Decisions

Susan Greco, Rules Coordinator, presented an information item on some upcoming rule changes. In 1998 the Department created an internal work group to address concerns regarding the Department's process of public participation in permitting decisions. The work group developed a system of categories that provide increased public participation depending on the anticipated level of public concern, potential environmental harm and legal requirements. The Department will be presenting the rule changes to the Commission at its September meeting for adoption.

In addition to the discussion of the category process, the Commission was also informed of various other projects the Department is undertaking to improve its public participation process for permits. Included in these are the revising of the Public Notice and Involvement Guide, creating of templates for public notices, a pamphlet for the public on effective public comments and more information on our processes on the webpage.

K. Commissioners' Reports

Commissioner Malarkey reported on attending the Educational Committee of the Oregon Water Enhancement Board (OWEB) and showed the Commission the newly published Water Restoration Initiative (WRI) report. The Department will see that all Commissioners receive a copy of this report.

Chair Eden indicated her husband was on the SB1010 Committee and then reported on the last meeting of the Executive Review Panel regarding the Umatilla Chemical Depot.

L. Director's Report

The Environmental Protection Agency (EPA) will propose to place a 6-mile stretch of the Willamette River between Sauvie Island and Swan Island, referred to as Portland Harbor, on the National Priority List, commonly known as Superfund. EPA received Governor Kitzhaber's concurrence letter this month and the proposed listing is expected to appear in the July 27 Federal Register. The letter included a statement of principles outlining how EPA and DEQ will cooperate in managing the cleanup jointly. The Governor's letter and press release, and the statement of principles are attached.

Ranchers Daryl and Barbara Hawes, the Baker County Farm Bureau and the Baker County Livestock Association filed suit against the Department, EQC and Oregon Department of Agriculture for asserting authority over waterbodies listed as impaired for non-point sources of pollution. The plaintiffs are also requesting the court issue a decree restraining and enjoining the defendants from imposing and implementing TMDLs and derivative plans on streams and segments of streams that are water quality limited solely due to non-point sources of pollution such as farming, grazing and logging. The judge issued an order denying the Hawes' motion to remand this case back to Baker County Circuit Court.

The Sierra Club joined Jack Churchill in requesting the court enter an order and decree that finds EPA in violation of a 1987 consent decree requiring EPA to ensure that Oregon complete a certain number of TMDLs. They also requested the court to issue an order compelling EPA to issue TMDLs for Oregon's identified polluted waters within six months. The parties in a related case, NWEA v. Browner, have reached an agreement that is generally consistent with Oregon's schedule for completing TMDLs. A proposed consent order has been submitted to Judge Michael Hogan. Oral arguments in the Churchill case occurred on July 5 before Judge Hogan.

On May 3, 2000, the EPA approved the Upper Grande Ronde Subbasin TMDL. This TMDL as approved includes 73 streams and stream segments in the Upper Grande Ronde listed as water quality impaired for temperature, nutrients, dissolved oxygen, pH, aquatic weeds and algae, and sedimentation. In addition, the Grande Ronde Water Quality Committee adopted the Upper Grande Ronde River Subbasin Water Quality Management Plan as the strategy for reducing water pollution to the level of the TMDL.

Much concern remains over EPA's intent to promulgate the proposed national TMDL regulations. Congress attached a rider to an emergency-spending bill that the Clinton Administration very much wants to sign. The rider prohibits the spending of any money to implement the new TMDL regulations until the 2002 federal fiscal year. It is reported that the President has asked EPA to have the rules ready for adoption prior to the July 13 bill signing deadline. If the rules are implemented before that, the rider would not apply.

The State of Oregon continues to support the heart of the regulations that were the result of a multi-year stakeholders group's work. Regardless of the outcome, DEQ will continue to proceed with completing TMDLs that include Water Quality Management Plans.

There being no further business, the meeting was adjourned at 2:55 p.m.

AGENDA ITEM H

Consideration of Tax Credit Request for

Application Number 4570

July 14, 2000

* * * *

Transcribed by: Iva Osman

TRANSCRIBE IT

2459 SE TV Hwy., PMB#212
Hillsboro, OR 97123-7919
Telephone: (503) 643-8582
Fax: (503) 643-8582

AGENDA ITEM H
Consideration of Tax Credit Request for
Application Number 4570
July 14, 2000

CHAIRMAN EDEN: Calling for the Willamette item, which is part of Agenda Item H. But we're going to do this first before we do the rest.

The way I thought we would proceed on this would be to have the Staff make its presentation and then ask the Willamette representatives to come to the table to make whatever presentation you would like to within a reasonable time limit. We do have your stack of information here that was provided to everyone, and then any discussion.

So do we have Mr. Huston on the phone?

MS. VANDEHEY: No, he is not on the phone yet. They're still trying to get him through, so if we could wait a minute -- either that, or I can go ahead.

CHAIRMAN EDEN: Well, how long do you think it would take us to do the rest of the tax credits?

MS. VANDEHEY: The rest of the tax credits? They're very straightforward. They're very few. They're underground storage tanks, along with --

CHAIRMAN EDEN: Well, why don't we go ahead and do that, with my apologies.

MS. LOTTRIDGE: He's dialing in now. Michael is dialing in now.

CHAIRMAN EDEN: Oh, well, let's take 30 seconds. If we

don't have him in 30 seconds, we'll have to get some work done.

MS. VANDEHEY: Okay. Before us we have -- Michael? I'm putting you on hold. I'm putting you on the speakerphone now. Okay, thank you. Michael?

MR. HUSTON: Yeah.

MS. VANDEHEY: Okay. We're going to do the other tax credits right now.

CHAIRMAN EDEN: Actually, no, we're not.

MS. VANDEHEY: Oh, no, we're not.

CHAIRMAN EDEN: As long we've got him on the phone, let's go ahead and do them now.

MS. VANDEHEY: Okay, we're not.

CHAIRMAN EDEN: We were waiting for you.

MR. HUSTON: Waiting for me?

CHAIRMAN EDEN: Yes. Can you --

MR. HUSTON: Well, Madam Chair.

CHAIRMAN EDEN: Can you hear us pretty well?

MR. HUSTON: If it's a little louder -- I can hear you. I hear Maggie real well.

MS. VANDEHEY: Thank you. Good morning, Madam Chair, Commissioners. To my left is Helen Lottridge, the Management Services Division Administrator. To my right is Michael Huston, Counsel, and today we're bringing before you

Willamette Industries Application Number 4570. It's presented in Agenda Item H. It's an addendum. And for your clarification, Application 4570 is a Pollution Control Facility Tax Credit Application.

This application has been part of EQC agenda, five times over the past four years. It was removed from consideration on four of those occasions. On December 20th, 1999, Willamette Industries did take the opportunity to present testimony before the Commission. The minutes to that meeting are provided in the Addendum at the back. Miller Nash's attorneys -- or Miller Nash, attorneys for Willamette Industries, also provided evidence with their letter to the Commission dated June 23rd, 2000, and it's in the black binder.

For these reasons, I'll be brief rather than comprehensive in my presentation of the application.

The claimed facility is East Multnomah Recycling. Willamette Industries is the owner of the claimed facility. East Multnomah Recycling was designed and built by Willamette for the purpose of leasing to its tenant, Far West Fibers. East Multnomah Recycling is very valuable in Oregon because of the amount of solid waste that it processes, about 400,000 tons of solid waste, such as corrugated cardboard, newspaper, mixed wastepaper, and high-grade office paper. This was from quotes from Jim Aden

of Willamette Industries for the years between 1994 and 1999.

Also, it processes about -- processes about 10 percent of all waste recycling in the Portland metropolitan area. As far as eligibility, the claimed facility includes land, a building, machinery, and equipment as allowed by law. The sole purpose of the eligible components is to prevent control, reduce -- or reduce a substantial quantity of solid waste. And for the final eligibility criteria, the pollution control is accomplished by a material recovery process.

This next part is particularly difficult, especially considering the important reduction in the amount of solid waste and that a \$2.8 million certified facility cost is at stake. It's difficult and it's unfortunate, that the only outstanding issues of this facility is when was construction substantially completed for pollution control purposes.

The Miller Nash submittal dated June 23rd in the black binder, 2000, did not provide evidence to change the Director's Recommendation. The pollution control facility tax credit law regarding when an application must be filed has two parts; the "do not file before" part and the "do not file after" part.

In the "do not file before" part, the law provides

that a pollution control facility tax credit application cannot be filed before construction is substantially completed, and it cannot be filed before the facility is placed in service. The Department considers that the application submittal met the first filing part of the filing requirement. The facility was not filed before construction was completed, and it was not filed before the facility was placed in service.

In the "do not file after" part, the law provides that the application must be filed within two years after construction of the facility is substantially completed.

On page 3 of the addendum there's a chronology of the relevant milestones as they relate to Application 4570. To recap, December 22nd, 1995 is the date that the application was submitted. Backtracking two years, construction of the facility had to have been completed on or after December 22nd, 1993, to be within the filing period and to be considered timely filed.

Staff interpretation of the "do not file after" part of the filing requirement concludes that the application was not submitted within the required filing period. Staff considered the facility began operating on September 27th, 1993. Willamette Industries was the owner of the claimed facility on that date. In the period between September 27th, 1993 and the key date of December 22nd, 1993,

over 12,200 tons of recyclable material were processed at East Multnomah Recycling.

In the absence of previous examples or a different direction from the Commission, the Director's Recommendation on the Review Report for the application, Application Number 4570, is to reject the application for untimely submittal.

CHAIRMAN EDEN: Does that conclude your --

MS. VANDEHEY: Yes, it does.

CHAIRMAN EDEN: Mr. Huston, do you have anything to add to that?

MR. HUSTON: Well, Madam Chair, I was ordered to spend five minutes or less. Let's kind of summarize the legal advice that we've offered in the case. Does that sound okay?

CHAIRMAN EDEN: That sounds appropriate.

MR. HUSTON: Okay. I'm going to spend, let's see, 47 seconds on a little background on the tax credit statutes and then speak to "substantially completed" standard, and then I just -- one new legal issue that's probably raised by the company's most recent submission. That would be the black book there.

Madam Chair, (inaudible) secret that the Environmental Quality Commission had, for a long time, (inaudible) imposed by the tax credit statutes, and I think the reason for that may be in part that this is not -- this

is not a delegated statute. This is (inaudible). It's not (inaudible) an instance in which the legislature has looked to this agency to establish a policy, but rather in this case, the legislature has exercised its prerogative to set the policy themselves and then assigned a different role to the Environmental Quality Commission, and that is basically one of interpreting their policy and fact finding. So it's the narrow -- narrower role that we think the Commission is obligated to play in this case.

On the issue of "substantially completed," the interpretation of that, the application of the facts here does seem to me that our office and the company has basically agreed, at least on the legal text here.

The Commission has very smartly taken the statute and offered to interpret it and provide more specific guidance to applicants, and so we have a fairly strict corporate statute which says that applications have to be filed within two years, and then a fairly strict court administrative rule interpreting that, and that rule says that you have to question when all the elements of the facility which are essential to perform its pollution control purposes of solid management or recovery in this instance and applying the facts, determine when that time period began to run -- and Maggie presented you with the department's view of that which we (inaudible) very easily,

legally defensible.

If I recall, that same test is set out in the most recent letter under the Miller Nash letterhead, so we have an agreement to that point. I think, though, part company, both the Department and our office, part company, is that the company argues that the Commission should give great weight, if not determinative weight, to the date of the leasehold, and it's our respectful judgement to give it absolute weight would certainly probably not be legally permissible, that you would establish a policy that the legislature opted not to establish.

Given a leasehold consideration is perfectly appropriate, weighing it with the other evidence. All is perfectly acceptable but not determinative weight. Rather, you have to search for that question about when the elements were in place so that it was operating for its pollution control purpose. Maggie summarized the evidence on that, her chronology on page 4, properly giving you the facts that you need.

I would just like spend my remaining 94 seconds on the question of consistency and how the Commission handles the past precedent that this or other commissions have established.

I think -- I hope the Commission understands that what has happened here is that the company, exercising its

rights under the public records law, made a very demanding public record request to DEQ. It basically, as I understand it, required that staff check or at least consider virtually all the Agency's tax credit files.

As a result of that search, the company found the -- I think at least most, if not all, the documents that are in the black book there, and so I think the Commission needs to ask itself what weight are those decisions entitled to, how do you manage to those, to what extent are you obligated to follow those.

The company does not (inaudible), that I saw, the legal test that applies here. Under the Administrative Procedures Act, which sets the Court review standards for all agency decisions, the test is as follows, Madam Chair. The Court will reject the Agency decision only if it is (inaudible) inconsistent with an official agency position or agency practice, only if the inconsistency is not explained by the agency. But that's one of three elements there. We have to have an officially stated agency position or agency practice.

Secondly, there has to be an actual inconsistency; first to say that you don't necessarily have to explain the differences between apples and oranges, but they have to be somewhat close to each other on the facts.

And then third, even if those two elements do

exist, the Agency Commission is entitled to deviate from that prior policy and practice by explaining the reason for doing so. What are the reasons for doing so? Well, perhaps the most obvious is the prior decisions were wrong, legally wrong or wrong or bad as a matter of policy. Those are perfectly acceptable reasons to deviate.

It certainly -- the courts have been smart enough not to require that an agency keep making the -- making the same mistakes, or that they keep perpetuating that decision is based on all the information.

If we look at the materials in the black binder, then we can certainly -- time won't permit much discussion of those and we can do so on a question-by-question basis if that's the Commission's desire, but, virtually, I think Ms. Vandehey and I felt that virtually all the decisions were either not official agency practices or not factually inconsistent. I think the one -- the reasons for that are I think that most of the tax credits -- and you can look at them, the Miller Nash letter dated June 23rd. They summarized the information here.

If you look at it, I think tax credits, at least eight, nine, ten, perhaps seven. I'm unsure about six, but Maggie informs me that all those reports have not yet been acted upon by the Commission, and I believe that they pulled from agendas, in part because it was understood that this

policy decision or interpretation was at issue here.

The Number 2, the Fujitsu, and it's maybe -- it's factually different, in the sense that both the leaseholds and the completion fell within the deadline, so it doesn't seem to be comparable. And Maggie and I were -- thought perhaps that the first tax credit report, a 1993 decision by the Commission, is perhaps an inconsistency in the fact that the Commission were to accept the Department's position, again, it's that 1993, it's a while back, and the Commission is certainly entitled to have refined its thinking and its skill in applying the legal test in this case. That is one case, though, I think in which it appears that maybe the leasehold had a significant effect on the outcome.

That's it, Madam Chair. I welcome questions. Thank you very much for letting me attend by phone. I had great hand gestures. I hope you noted that.

CHAIRMAN EDEN: Thank you very much.

COMMISSIONER MALARKEY: What did he say?

CHAIRMAN EDEN: He had great hand gestures. He hopes that we noticed them. Yeah, duly noted.

If you have nothing else at this time, Ms. Vandehey, then let's ask Willamette Industries representatives to come to the table and make their 10-minute presentation.

And if you could -- Well, introduce yourself for

the record. Then I'll ask my questions.

MR. BLY: For the record, I'm Rece Bly with the Miller Nash firm, appearing on behalf of Willamette, and this is Jim Aden, who is also with Willamette, also appearing on their behalf.

CHAIRMAN EDEN: Welcome, and thank you for coming to Tillamook. Mr. Bly, could you specifically talk about the -- in your presentation at some point, the 1993 case that seems to be the one previous decision that might be inconsistent with what you're faced with now in terms of the Director's Recommendation?

MR. BLY: All right. Let me, first of all, echo what was said. This is a behemoth among recycled facilities. This thing -- This facility basically recycles a lot of the cardboard on the eastern -- in the eastern half of the Portland metropolitan area. It moves literally mountains of cardboard. It's a very large facility.

We were told before we left for this trip, that we should provide a five-minute presentation so I kind of geared it toward that, but I think there's plenty to talk about here.

About all we can do in the time allowed is point to some glaring issues in the hope that maybe some of the commissioners will agree with us, that there are some notable glaring issues and perhaps pursue some of those

issues which we think will bring about a proper result here.

The first glaring issue I want to point to is Mr. Bill Bree. Time and time and time again in the Department's files, Mr. Bree has made a very firm written record that he believes that East Multnomah Recycling should be certified. Mr. Bree is the person to whom this file was assigned, and he's the man who worked this file on behalf of the Department for a long time, and when he makes his record, which he's done many many times, it exceeds the materials that we've submitted to the Commission. He gives reasons, and he explains that the Department is deviating from its established practices. He asks questions like, "Why are we doing this on EMR? This isn't the way we do things."

Now, it seems to me that one of the best things that the Commission could do is right after we're done with our five or ten minutes, that the Commission would call Mr. Bree because he's the man that handled this file, and that the Commission would ask Mr. Bree, "Why do you feel so strongly about this, that you keep making a clear written record that this thing should be certified?"

Mr. Bree is really pretty amazing to look at his performance from the outside because I assume that this was not very popular among the Staff, for him to continue to make a clear record that this thing should be certified, but

he kept doing that, and I would describe it as courageous or, at the very least, the guy sure sticks to his guns on some things. So Mr. Bree should be consulted. That's the first issue.

The second issue is Staff's response to document requests. Mr. Huston just called our document requests very demanding. On other occasions Staff has called it abusive, bad faith, that we had -- alleged that we had ill motives. Let me tell you just a bit about the document request because my question is what is there to hide. Willamette submitted its first extremely abbreviated -- I want to stress that, extremely abbreviated document request on January 27 of 2000. Three and one half months later, the documents had not been produced. We submitted a lawful public records request, and three and a half months later the documents weren't produced, still hadn't been produced.

On May 16, we received written notice from Staff that there absolutely would not be a settlement. You will recall that both Willamette and senior Staff had supported a settlement, but we were given written word on May 16, that there absolutely, positively would be no settlement, and we were given a demand that in no -- that in 19 days Willamette make its final submittal of written materials. That's on May 16. Two days later -- and that came as a surprise to us. Two days later we delivered a supplemental request for

documents. Why?

Well, we had one or two of the documents that Mr. Bree had offered. It was very clear that Mr. Bree was acting and speaking based on what the command of material in the Department's files. We suspected correctly, that there was probably a treasure trove of material in the Department's files that supported Willamette's position. In other words, the best source for information starting to support Willamette's position is the Department's own files. So we asked for those files not in bad faith, but so that we could prove that we were right about this and the facility should be certified.

Now, what happened after that is our request for documents. Supplemental request was May 18. The bulk of the production -- not all of it because parts of it were still coming in afterwards, but the bulk of the Department's production was June 12. We then spent 80 hours -- because we kept track of the time -- 80 hours reading, digesting, understanding, and researching based on the treasure trove of material that was delivered to us.

And on June 23 -- so this is 11 days later -- we submitted -- and I could say it's a pretty good piece of work because I didn't write it. We submitted a pretty good piece of work. It's a 12-page summary of everything we found, and a product of our research, and we backed it up

with this binder that's been referred to.

You know, if there's a bad faith request for documents, what people do is when they get the documents they chuck them in the corner and they forget them and they have a good belly laugh, and that's the end of it because they abuse the other party. That's not what went on here. We needed the documents. We got them, we used them, we wrote a good product, and we hope the commissioners have all had time to read our submittal.

So the second point was the response to the document request and the issue of what is there to hide.

The third issue is the failure on Staff's part to address anything in our 12-page submittal and our supporting authority. When Staff came out with their July 6th rejection letter, the rejection notice, or report, this report purports to list out what it is that Willamette has submitted. It does that on page 3. It lists exactly what Willamette has submitted. It says that -- I'm on page 3 of this -- of this July 6 rejection report. And it lists our submittals as December 8, '99, December 10, '99, and January 6th, '99, with the cost documentation, and then in the text at the very bottom of page 3, it again says what Willamette has submitted.

It doesn't even refer -- It's not even mentioned, our 12-page submittal and the one inch of authority, and,

perhaps more importantly, this rejection letter, or report, does not address any of the arguments or authority in our materials. It sure looks like -- and we don't know this, but it sure has the appearance that the report was written before our materials were submitted, in which case, if that's the way it was going to be, we should simply have been told that you are not going to be allowed to submit anything more, and if you do, it won't be considered.

The fourth glaring issue is what we call Staff's attempt to run away from the Department's own precedent, practices, and procedures. Mr. Bree does an excellent job of highlighting this time and time again in the file. Now, during Mr. Huston's presentation, I think what I heard is a suggestion that -- or almost a grudging acknowledgement yet that, yes, there is established precedent practice and procedure which is evidenced by the Department's own file, and if you are going to reject EMR, even though it is what it is -- I mean, it is a facility that should have been built to recycle mountains of solid waste.

If not withstanding your existing precedent you're going to reject that, I think the Counsel I heard describe this morning, or the message was, "Well, you might need to adjust in some of your existing policy or precedent. You might want to try and distinguish it or jettison it," and my question is why. Mr. Bree is right.

If you follow established practice and procedures, you're not going to be straining to reject certification of EMR. You're going to certify a worthy facility.

Now, in response to your request, Chair Eden, we received nothing, not one scrap of paper, not one word by phone call, nothing in response to our submittal; nothing from Staff, nothing from Mr. Huston. And it's worse than that because when we sent this material, which is a product of 80 hours of hard work, to Staff, we sent an email at the same time and we said, "Do you want us to send it to the Commission members? Please advise." There was never any response to that email.

But we didn't stop with that. We sent our submittal also to Mr. Huston, and Carrie Kuerschner of my office called Mr. Huston, and Mr. Huston gave us a timely response because our question to Mr. Huston was, "Do you need more information? Would you like to discuss? Do you see any issues that need to be hashed out?" And Mr. Huston -- this was on the 30th -- called back and left us a message that he hadn't had a chance to look at the material yet, and we've never received any further response from the Staff or legal counsel about any interest in discussing anything in our submittal; nothing.

So until I showed up here this morning, I had no idea that Mr. Huston would take the position that maybe

you'll have to get around or repeal or somehow deal with the '93 decision that perhaps suggests that you should certify. I'm coming here unarmed because this is the first I've ever heard of it. So I don't know why he's picking out that one decision.

I will share -- I want to share one other thing before I hush up. What I want to share is a policy statement that came out in November, that set forth the Agency's policies on interpreting some of the issues that are germane here, and, specifically, I'm referring to a November 1999 interpretation document that Staff promulgated. And it wasn't a document that was proposing a change in policy, it was an articulation of the existing policy.

And what this staff document said is, "ORS 468.165 appears to separate the terms 'substantially completed' and 'placed in service.' The OAR definition of 'substantially completed' and the IRS definition of 'placed in service' have the same meaning, closed quote. That's from the Department's own November '99 interpretation document. That's extremely important because if this is true, and we take it to be true and Mr. Marsh apparently takes it to be true, because at the top of page 9 of our submittal to the Commission Mr. Marsh seconds this. He says, "The written interpretation has been relied upon by the Department to

establish the date of substantial completion," referring to this November '99 document.

What does this mean? I mean, what's the significance of this? Well, what it means to a lawyer, of course, is that you can now go to the IRS authority, and there's a substantial lobby of that, of course, and you can -- you can glean from it an understanding of whether this facility was substantially completed, because the Agency itself has gone on record as saying the IRS definition of "placement service" is equivalent to the agency definition of "substantially completed." That's exactly what we did in our submittal.

Now, in May we took this up because this document came to us late. Remember we filed our document request in January? We didn't find out about this official interpretation until May, and when we got it in our hands we thought it was potentially a very important document, which it is. We asked Staff and legal counsel about this. And, basically, our conclusion was this should be over. Based on the supporting IRS authority this whole thing should be disposed of, and the response was, "Gee, that wasn't an official statement," and, "Gee, well, that was discussed and, well, the EQC chose not to adopt that."

That's not what's significant here. This was Staff's statement of how it was interpreting the relevant

authority. This is how they were doing it, and we accept that. That's how they were doing it. And if we do the same thing here, then this facility should be certified.

Do you have anything, Jim?

MR. ADEN: No.

MR. BLY: Nothing further. Thank you.

CHAIRMAN EDEN: Thank you. Mr. Huston, do you have any response at this point?

MR. HUSTON: Well, probably -- probably one brief kind of factual note, Madam Chair. My understanding on the topic discussion document that Mr. Bly's referring to, he said it was an effort by Staff to provide some greater certainty to the determination of "substantial completion" in particular, and Staff very much wanted to have a bright line that they could use for these cases and so they talked about possibly using the IRS determination, and it was rejected.

The policy was considered. Maggie can tell you whether it actually proceeded to the Commissioner but it was basically rejected, and I think in part, based upon legal advice, that the desired policy here, that of using the IRS determination would probably conflict with the statute. So I don't think that an agency staff should be chastised or that they should be discouraged from examining, though, interpretational questions, and that's my understanding of that particular document.

Otherwise, I don't take issue with Mr. Bly's assessment of my comments. I do think -- My overall assessment is that the company found almost nothing of value in their public records request. To find perhaps one tax credit report in thousands that may be close to this one is certainly not overwhelming evidence.

Thank you, Madam Chair.

CHAIRMAN EDEN: Thank you, Mr. Huston. Does Staff have anything additional? Could we ask that you come back to the table?

Thank you very much, Mr. Bly and Mr. Aden.

MS. VANDEHEY: Madam Chair, I would like to know if you would ask Michael Huston to discuss the first records request made by Miller Nash, rather than me address that.

CHAIRMAN EDEN: The December one? The January one?

MS. VANDEHEY: Yes, the first records request.

MR. HUSTON: Are you nodding, Madam Chair? Do you want me to speak to that?

CHAIRMAN EDEN: I'm thinking. I think that I do.

MR. HUSTON: I think I can do so in two sentences.

CHAIRMAN EDEN: All right.

MR. HUSTON: I feel very, very sorry that there was a misunderstanding. Maggie and I both thought we heard and clearly understood that the company agreed to put that public record request on hold and entering a -- a three

months' settlement discussion. Anyway, I had very carefully advised my client, the Department Staff, not to mention those settlement discussions because we -- the company had requested that -- they put it on the record so I guess I'm free to just note that we did go into protractive settlement discussions to try to resolve this case. Those did not come to fruition.

And as soon as those were completed, Maggie started spending an enormous amount of her and other staff people's time in responding to a very big record.

Thank you.

CHAIRMAN EDEN: So the Department's position is that in fact the -- they thought there was an agreement that the public records request was put on hold until shortly after May 16th. Is that -- Is that your interpretation?

MR. HUSTON: Yes.

CHAIRMAN EDEN: And the bulk of the material was provided by June 12th.

MR. HUSTON: That's right, isn't it, Maggie? I think the response was on June 12th, right? That's the bulk of the material that --

CHAIRMAN EDEN: Yes, it was in June. That's what Mr. Bly said so --

Does Staff have anything additional?

MS. LOTTRIDGE: Yes. For the record, I'm Helen

Lottridge, Administrator of Management Services Division. I would like to just describe some Staff responsibility issues that might help to clarify roles within the Department. There were several references made to Mr. Bree being the man to whom the file is assigned. And, in fact, Mr. Bree carried a large part of the responsibility for reviewing this tax credit and many others. His particular part of the responsibility is primarily to review and often inspect the facility to determine whether it meets the definition of a pollution control facility.

And then, of course, we have many discussions among Staff representing possible points of view and different facts related to the matter so, yes, we do discuss these tax credits within the agency and different possibilities and ways of thinking about them.

And so if Mr. Bree wishes to venture and give facts or viewpoints on anything other than the basic responsibility of meeting the definition of a pollution control facility, we would certainly welcome that and discuss it among Staff. It is, however, Ms. Vandehey's ultimate responsibility to decide such issues as timely submission of the application.

I might just mention that in a memo that Mr. Bree wrote on August 23rd of 1996, he does make two observations about the facility, answering two questions here. Is the

facility eligible, based on sole principal purpose test? Yes. And I think that Ms Vandehey referred to the other earlier. I don't really think there's any disagreement on that question.

And the second question Mr. Bree poses in this memorandum is, is the facility eligible, based on meeting the filing deadline. No, is his answer. In the first paragraph he says, "I'm proposing that the Department reject Willamette Industries' tax credit application, based upon the discussion below about submission during the two-year period."

If you would like to have copies of that, we're very happy to provide it to you.

So that pretty much will help to clarify and delineate the responsibilities of Staff. And then --

COMMISSIONER REEVE: Excuse me.

MS. LOTTRIDGE: Yes, sure.

COMMISSIONER REEVE: Can you just -- What were you reading from?

MS. LOTTRIDGE: I was reading from a memorandum that Mr. Bree wrote on August 23rd, 1996 -- Maggie, do you want to go into --

MS. VANDEHEY: Yeah.

MS. LOTTRIDGE: This was following one of his earlier reviews of the application, I think.

MS. VANDEHEY: Normally, in the reviews that I looked at, what happens in the review process, the Department is in a process of discovery. And we move along and perform the review and when we come to a stopping point, we then stop going any further until we -- and we don't -- we don't explore until we resolve those issues.

That was the case with this application. Mr. Bree came to the point of filing the timely submittal, and he did not go farther in the review. He -- Every application review begins its life as an approval. And throughout this, all of the drafts still had approval pending resolution of the submittal issue.

I have several documents written by Bill Bree; one June 12th, 1996, and in that letter --

(There was a pause in the proceedings.)

MS. VANDEHEY: In that letter he's asking for additional information, additional information for issues that need to be clarified before he can complete his review. This is about the time that he sent his FAX to Mr. Jim Aden with a copy of the Review Report, and the Review Report actually had "Approve" on the top. However, the date of substantial completion had not been resolved.

In this letter he says a facility is considered to be substantially complete when it's capable of performing its purpose. He goes on to talk about the dates, and then

he also talks about types of documents that the Department may review to verify when the plant facility was in operation, and he says including information on when the equipment was being operated, when the facilities -- utilities were fully utilized, what related equipment was being operated on the site prior to that date, what material was being received, processed, and sold on the site prior to that date, and what startup date is used on the local permits and licenses.

That paragraph is part of our discovery process. There is -- With this term there is no magic bright line date that we can point to and still stay within the meaning of the legislative intent.

(Side B)

MS. VANDEHEY: I've also included the August 23rd, 1996 memo from Mr. Bree to Mr. Charles Bianchi, and in that he clearly states, "I am proposing that the Department reject Willamette Industries' Tax Credit Application 4570."

Also, Madam Chair, I would like to apologize for the lateness of this black book. I did not receive the email that Mr. Bly is talking about.

CHAIRMAN EDEN: Well, I received the book on Monday afternoon, the 10th. Did everybody else get it then or before?

COMMISSIONER BENNETT: I was on the road, so,

obviously, it's sitting in my (inaudible).

CHAIRMAN EDEN: Oh, so you haven't seen it at all
Commissioner --

COMMISSIONER BENNETT: That is correct.

MS. VANDEHEY: And I also -- I received a copy. I have
a copy of it.

CHAIRMAN EDEN: Anything further from the Staff?

Questions or comments from the Commission?

And just for the record, Commissioner Van Vliet will not be
participating in either the discussion or any vote that
might occur on this issue because he has a stated conflict
of interest.

Questions or comments?

Commissioner Reeve?

COMMISSIONER REEVE: Mr. Huston, could you fill us in a
little bit further on what the APA really means, how it's
been interpreted as far as precedent and practices because
my review of the -- of the materials in the submission from
Willamette Industries show review reports which certainly,
you know, make a statement that can be read, understood as
reports. But I don't know, frankly, out of the APA, whether
those reports would rise to the level of an accepted
position or a precedent that we either need to follow or
distinguish. So can you fill us in a little more on that?

MR. HUSTON: Madam Chair, members of the Commission,

could I have Commissioner Reeve simply say again what materials he's referring to? Was it an individual tax credit report or to Commissioner or --

COMMISSIONER REEVE: Yes.

MR. HUSTON: -- another document?

COMMISSIONER REEVE: Precisely what I'm saying is we received in the submission from Willamette Industries these tax credit reports. I'm at the black binder, and my question to you is how those reports relate to the issue of a position or a precedent under the EPA -- excuse me, the APA.

MR. HUSTON: Thank you. I would like to take a crack at this. I would certainly encourage Mr. Knudsen to add to it or contradict it. I think Larry's had an opportunity to read the Martini v. OSPC decision, which the Court has spoken to some of these issues.

This statutory test that -- Commissioner, is inconsistent with an officially stated agency position or agency practice. I think -- My recollection is that the Court has required a fairly -- at least a significant degree of formality to the agency decision, I think particularly to seeing a staff policy document that wasn't adopted. I don't think that represents an officially stated agency position. I think it represents a rejection of the position, perhaps.

What they're -- Let's do our best -- I'll try to

do my best to tell you whether I think Document 1, the Timber Products Company Tax Credit Report, what the status of that would be under the APA standard. I really doubt very much, Commissioner, that a Court would conclude that the paragraph in that document that addresses at least similar facts -- It doesn't accept much interpretive reasoning, that I recall. I doubt that a Court would conclude that that was in the category of an officially adopted position.

I do think, nonetheless, that Commissioner Knudsen or I might suggest to you that in the order in this case, that we nonetheless assume that it might be, and include some findings or reasonings that would tell the Court why the Commission prefers to go with the current interpretation, which reasons include that -- reasons which include the fact that the Agency has asked our office to examine the statute and the administrative rule on "substantial completion," and we would like to think that we're closer to being on the right track under the legislature guidance than we were before.

COMMISSIONER REEVE: Is there any evidence or document that you've run across, that during the Timber Products consideration there was discussion interpretation by the Commission or by Staff on this particular issue?

MR. HUSTON: During the consideration on the Timber

Products Company, that Tax Credit Report?

COMMISSIONER REEVE: Right.

MR. HUSTON: I personally have no recollection whatsoever of that tax credit, Commissioner Reeve. I may well -- I'm sure I was working with DEQ at that time. I probably served as the Commission's counsel at that time, but I don't -- but rarely would I have a recollection of that specific tax credit.

COMMISSIONER REEVE: Well, regardless of your personal recollection, would it be -- would documents relating to that be included within the document request that you responded to?

MR. HUSTON: Oh, I think most -- I'm sorry, Commissioner Reeve, if I didn't get the question right. I think the answer is most definitely yes. I think Maggie and I both were very clear that anything that would -- that would have been even remotely on this topic would have been provided to the company.

You know, contrary to Mr. Bly's suggestions that the Agency is hiding something, anything, I think the company, at least from my honest assessment of it, DEQ has been extremely careful in attempting to provide anything that might be related to this policy question. It's perfectly possible that they may have made a mistake, but there is certainly, to my knowledge, nothing being hidden.

It's all out there, for better or worse.

MS. VANDEHEY: Madam Chair?

CHAIRMAN EDEN: Would it be in the minutes?

MS. VANDEHEY: Madam Chair, may I offer --

CHAIRMAN EDEN: Ms. Vandehey.

MS. VANDEHEY: In the records request we copied all EQC agenda for the past ten years, provided them to Miller Nash, as they show in the binders, regarding tax credit. That includes that -- any summaries that were included in those binders, all review reports and all Director's letters that went before the Commission for the last ten years.

MR. KNUDSEN: Madam Chair, perhaps I can respond more to Commissioner Reeve's initial question. Most of the volume law in this issue -- and there isn't much, but most of it is developed in the context of either contested case decisions, where you have relatively formal findings and a discussion of the hearing officer or bodies decision, or in the case of more formal, but not rules, guidance, usually, internal management directives that have been adopted as formal guidance by an agency.

And so that's why it's a little bit difficult to apply it to this context where, typically, we just don't have that kind of detail in the tax credit decision, with the exception of a few cases like Tidewater or others where we've gone into detailed discussion and prepared elaborate

orders, we rely on just the report and the minutes for our final order, so that's the difficulty in applying the test to this case.

But that's also, I think, the reason for our advice that it's probably appropriate to go ahead and address this issue in any order you may, so that it would be clear if the case comes to judicial review.

CHAIRMAN EDEN: In case it comes to judicial review.

COMMISSIONER REEVE: Well, I think to be fair, frankly, to the public and that the applicant, to know what the rules are.

CHAIRMAN EDEN: Other questions or comments?

Commissioner Malarkey, what's your questions?

COMMISSIONER MALARKEY: I was referring to the earlier minutes --

MS. PURSER: You need to speak up.

COMMISSIONER MALARKEY: Oh. I'm not (inaudible).

CHAIRMAN EDEN: What's the pleasure of the Commission?

COMMISSIONER BENNETT: What we see is the motion in front of us, (inaudible).

CHAIRMAN EDEN: We don't have a motion in front of us as a motion. If there's --

COMMISSIONER BENNETT: That's the question, then.

CHAIRMAN EDEN: If there's going to be one, somebody needs to make one one way or the other, or if you want to

put it off in terms of thinking more about the argument about consistency, that's an option, as well. Maybe not.

Mr. Aden, would you like to comment on that?

MR. ADEN: If I could for just two minutes, that I was (inaudible) involved in 1996 and in 1994, actually, in this project, that I would say that I had been doing tax credits for 13 years before then. I had -- We, Willamette Industries, did this as a lease project, looked at the tax credit as part of the reason to do it.

Unfortunately, the operating people -- and the tax credit doesn't start until you get the thing certified, so I was pushing many, many years before we filed the dangd thing to get it in. But I guess that, unfortunately, the guy that was retiring did this project, wasn't top on his priority list. He put it off.

But I guess that I believed when we filed it on December 22nd, that based upon everything I saw in all of my experience, as well, you know, I guess, of doing these, is that Willamette Industries, if you look at the application, the application of Willamette Industries, all of the return on investment is Willamette Industries. All of the additional questions are Willamette Industries integral to all of those questions are the lessor's questions. The lease was January 1st, that I believe and I still believe, that that was a date that we met. That was not a bad date,

and I know I wanted it the year before. I wanted it a long time before. But on December 22nd, I was relieved to have met that because I knew the date of January 1st, and I've been somewhat knowledgeable of our dealings with Far West Fibers, of the fact that they had to move when they had to move, that they moved a little early because of the problems with the former facility.

They had -- They did move in September, late September, that there's certain factors, and the dust filter was a thing that was part of the original design, part of the separately listed pieces of equipment, and it wasn't in service until 1994. And I guess that I felt that because of those things, that on December 22nd, we met the deadline. I didn't like it. I wished we would have done it a long way earlier. God, I wish now that we would have done it a lot earlier. But I guess I just wanted to make that clear, that when we filed it an experienced tax person felt that we met it, and, you know, right, wrong, or indifferent I just wanted to let you know that.

And I also say that I know that this has been a tremendous amount of Willamette's time, a tremendous amount of the Department's time. I'm sorry we didn't file it six months earlier, but I guess that's the facts.

Thank you.

CHAIRMAN EDEN: Thank you, Mr. Aden. We're still at

what's the pleasure of the Commission.

COMMISSIONER BENNETT: Well, aren't there several things that we could do, and what are those?

CHAIRMAN EDEN: Mr. Knudsen, would you like to lay this out for the Commission?

MR. KNUDSEN: Well, if you are inclined to agree with the Staff Report and the recommendations there, then a motion which is made to deny for those reasons.

If you are disinclined to follow the Staff Report, then I think you probably are going to have to make a call as to whether or not the basis for a different reason -- or a different decision is going to be the substantial completion, date of completion issue, and whether or not you are either going to agree that there should be -- at least they should control in this case, or you might take a position that the company is going to change that in the future, and why and what do you think was the past practice to rely on, at least, holds that's your determination.

Or, on the other hand, you might decide that you would be interested in this new -- what I'll characterize as a new argument, that the filter system or scales were integral to the materials recovery function and have the effect of (inaudible).

CHAIRMAN EDEN: That's not really a new argument. I mean, we've discussed that, I think.

MR. KNUDSEN: It came up later in the process.

CHAIRMAN EDEN: Yes.

MR. KNUDSEN: Don't mean to say that it's untimely or shouldn't be considered in this --

CHAIRMAN EDEN: We discussed it and considered it in our -- in the past.

There's a third option, is there not, of putting it off to more further -- more closely examine the consistency argument?

MR. KNUDSEN: Certainly you can make that decision. I'm a little concerned about that. In the past the company has been unhappy with doing that, and eventually they may decide to act on that unhappiness. So -- But it is an option. There's some risks, but it's an option.

CHAIRMAN EDEN: Does that answer your question, Commissioner Bennett?

COMMISSIONER BENNETT: Well, I was just waiting for sixth or seventh option.

CHAIRMAN EDEN: Commissioner Malarkey?

COMMISSIONER MALARKEY: Well, the thing that -- Madam Chair, is the fact that I've never seen this William Bree email. I may -- just because I was not on the Commission, and then --

CHAIRMAN EDEN: Which email are you referring to?

COMMISSIONER MALARKEY: I'm sorry, it was passed out

this morning from William Bree and Maggie Vandehey. And then I had known anything about the issue. Number 1 -- excuse me, the inconsistency issue, and that leaves me unable to make a firm vote.

CHAIRMAN EDEN: So what's the pleasure of the Commission?

COMMISSIONER BENNETT: Madam Chair, in the August 23rd, '96 email, it's not so much -- I'm looking under Number 2, "Is the facility eligible?" The note is there, and then the question is asked in the last sentence do we use September, do we use the start of -- start of operation, or the December date when they started the lease. And it looks like that was where the question was, if this was a "no" would that question following -- those questions follow.

So if you answer that question one day one way, the "no" stands. If you don't, then where are you from there? That decision appears, from the Staff's standpoint, to have been answered in support of the "no."

And the rest of it, then, becomes a question of is this one of those cases where somebody missed the date, and then that's the way it is.

So when I look at this, that's the pivot. And it's not so much whether I'm supporting the Staff in this case as I'm just reviewing what I've seen. I did not see (inaudible). But listening, it appears that the case is

being created, tried to produce an alternative to one of these dates, and it doesn't look like it to me.

So my motion would be to support the Staff.

CHAIRMAN EDEN: Are you making that motion?

MR. BENNETT: My motion would be, and, therefore, I'm making that.

CHAIRMAN EDEN: So let me make sure that I'm stating it correctly. Your motion is to accept the Staff Report and deny the tax credit application --

COMMISSIONER BENNETT: Correct.

CHAIRMAN EDEN: -- 4570.

COMMISSIONER BENNETT: Correct.

CHAIRMAN EDEN: Is there a second?

COMMISSIONER MALARKEY: I second.

CHAIRMAN EDEN: Any other questions or comments, any discussion?

Commissioner Reeve.

COMMISSIONER REEVE: Well, I think it's fair to make a comment applicable -- because this has been a long process and it's been a lot of time -- both the Commission and the Department, and certainly Willamette, I know, who have put a lot of effort in this, and I think they're entitled to some additional perspective on it, though I don't think, ultimately, they'll like probably what they're about to hear from, at least from me, and that is I think Mr. Bree, to the

extent he supported this application, was largely making legal interpretation, and while I respect his right to make one, I think the Commission has to make its own legal interpretation of what the statute and rules mean on substantial completion.

I think Mr. Bree does -- Mr. Bree's comments highlight the issue of the lease and whether "placed in service" is indeed the same thing as "substantial completion." I think, legally -- it's my interpretation, I think, perhaps the interpretation of the Commission, is that those are different terms, and that the extent those terms have been completed, that was a mistake. And if we've made that mistake in the past, I don't think it's our responsibility to continue to make that mistake if we feel strongly -- and I do feel strongly -- that it doesn't jive with the way the statute is actually written.

I think the statute does have those two terms separate. I think the first part of that phrase in the statute which says -- lays out the criteria before that must be -- before an application can be submitted is different from the two-year deadline. I think it's unfortunate if the Department's prior interpretations and discussions with Staff have not clearly made that distinction.

I think they were wrong if they didn't do that, and to the extent that lulled people like Mr. Aden into

reliance, I think that's a mistake and one that, frankly, the Department should apologize about, but it is not something that I can rely on in good conscience and say, well, because the Department did not make that distinction clearly enough, then we are bound to follow it. I think we're bound to follow the statute and the rules as best we can understand them and interpret them.

As to the -- That's really the legal issue.

The factual issue, which we really haven't talked about a great deal here today but we talked about more at the last meeting is, really, were the essential parts of the facility in place before -- you know, back in September, October, November, and I think, as I've said before, factually, I think the record is relatively clear that factually the -- all those essential elements were in place, and that we've had evidence of thousands of tons of baled product during that period.

I think we start down a very slippery slope if we somehow try to give a great deal of flexibility and wiggle room to facilities that are essentially operating but, you know, are still making modifications and changes. I think the statute really doesn't give us that kind of flexibility. And, frankly, if the legislature wants us to do that, they can tell us that we have greater flexibility to do that, but I don't see it in the current statute and rules.

So that's my way of -- my comment and explanation where my vote comes from.

CHAIRMAN EDEN: Thank you. As Chair, I am extremely fortunate to always get to speak after Commissioner Reeve. And in this instance, we have discussed this. Our positions have not really changed, and he has very ably articulated my view on this, as well.

I do want to say that I agreed with Commissioner Van Vliet's comment way back when, when we first talked about this, that this is an extremely wonderful facility. We just can't -- It doesn't sound to me like we can get over the deadline problem, and we disagree with you, and we expect we'll see you in court. But it's not because we don't agree with the facility is doing exactly what it was designed to do. We just wish, as well as you do, Mr. Aden, that it had been brought to us sooner.

So with that, we probably need a roll call. It's been moved and seconded that we deny Tax Credit Application Number 4570. Director Marsh?

DIRECTOR MARSH: Commissioner Bennett.

COMMISSIONER BENNETT: Aye.

DIRECTOR MARSH: Commissioner Reeve.

MR. REEVE: Aye.

DIRECTOR MARSH: Commissioner Malarkey.

COMMISSIONER ROY: Aye.

DIRECTOR MARSH: Chair Eden.

CHAIR EDEN: Aye.

MR. KNUDSEN: Madam Chair, before we move on can we discuss the order? I can either prepare an order based upon Staff Report -- and I would suggest also the comments made during the taking of the motion as to the motion by various Commissioners and prepare that for the Director's signature, or I can prepare a draft order and bring that back for you at -- for the Commission at its next meeting, either regular or special, and then you can sign it, Ms. Chair. What is your pleasure?

CHAIRMAN EDEN: As far as I'm concerned, the first alternative is appropriate. I don't believe that we need to see another order on this again.

(MR. SPEAKER): I will do that.

CHAIRMAN EDEN: Thank you.

Thank you very much for coming.

(MS. SPEAKER): Thank you, Madam Chair.

(MR. SPEAKER): Thank you.

CHAIRMAN EDEN: Thank you, Mr. Huston.

MR. HUSTON: Thank you.

* * * *