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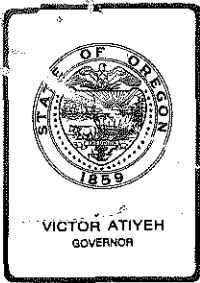
**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS**



State of Oregon
**Department of
Environmental
Quality**

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Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. L, July 19, 1985, EQC Meeting

Consideration of Proposed Rules for Granting Water
Quality Standards Compliance Certification Pursuant
to Requirements of Section 401 of the Federal Clean
Water Act

Background

At the EQC meeting on January 25, 1985, the department proposed adoption of procedural rules for granting of water quality standards certification pursuant to the requirements of Section 401 of the Federal Clean Water Act. (See Attachment D) The department had previously held a public hearing on the proposed rules on November 28, 1984, after receiving commission authorization for such a hearing at the September 24, 1984 EQC meeting.

The commission heard additional testimony at the January 25, 1985 meeting from Jack Smith, Jack Churchill, and John Charles. The essence of their testimony was that DEQ is viewing 401 certification much too narrowly by looking at water quality impacts only. DEQ should be more aggressive in the 401 certification process, should establish maximum allowable pollutant loadings and consider impacts upon them, should look at overall impacts on water uses rather than just water quality, and should allow a process for the aggrieved public to appeal DEQ and EQC decisions. They suggested several specific amendments to the proposed rules. (See Attachment B)

After some discussion, the Commission voted to defer action on the proposed rules pending further discussion.

Since that time, the commission has considered the appeal of the department's denial of 401 certification for the Lava Diversion Hydroelectric Project on the Deschutes River south of Bend. The EQC upheld the department's denial action. The EQC decision has now been appealed to the Oregon Court of Appeals by the applicant. The Northwest Environmental Defense Center has filed as cross petitioner seeking judicial review of the Commission's decision. The petition asserts that the Commission failed to consider the petitioner's position on beneficial use impacts as advanced by petitioner's Vice President, Jack Smith, during rule making proceedings and at the public forum prior to the contested case hearing.

There has also been significant discussion on the 401 certification issue before the Joint Water Committee of the Oregon Legislature. HB 2990, enacted by the legislature establishes a state policy regarding new hydroelectric generating facilities. Sections 6, 7 and 8 of this bill require the department to withhold certification to projects that do not comply with the new hydro policy and rules of the Department of Energy and Water Policy Review Board that are intended to implement that new policy. (See Attachment C)

Before procedural rules can be adopted regarding 401 certification, the issues outlined in the next section need to be discussed and resolved.

Discussion of Issues

ISSUE -- In acting on a request for 401 certification, does the Federal Clean Water Act (1) prohibit; (2) require; or (3) allow DEQ to consider matters other than the impact of a proposed project or activity on water quality?

Discussion -- The department has taken the position that Section 401 requires consideration of the impact of a proposed project on water quality but also allows (does not prohibit and does not require) the state to consider other factors that are requirements of state law.

ORS 468.735 authorizes the commission to establish water quality standards that are in accordance with the policy set forth in ORS 468.710 and are "...consistent with policies and programs for the use and control of the water resources of the state adopted by the Water Policy Review Board...".

ORS 468.710, in part, declares it to be the policy of the state "... to protect, maintain and improve the quality of the waters of the state for public water supplies, for the propagation of wildlife, fish and aquatic life and for domestic, agricultural, industrial, municipal, recreational and other legitimate beneficial uses...".

It seems clear under both federal and state law that projects which alter water quality in a manner which adversely impacts recognized beneficial uses do not qualify for certification.

Testimony presented has asserted that the words "water quality standard" have a different meaning under state law than under federal law. Under state law, a "standard" is adopted to describe the specific level of a quality criterion that is necessary to protect a designated "use". It has been suggested that Section 303 of the Federal Clean Water Act requires the state to adopt standards, which consist of a "use" and the "criteria" to protect the use, i.e. STANDARD = USE + CRITERIA. Thus, the testimony argues that a state "standard" is equivalent to a federal "criteria". The testimony further argues that compliance with a federal water quality standard means that the designated use is protected and further that the water quality criteria are not violated. For example, the testimony suggests that reduction of stream flow by

diversion of water for out of stream use such that instream uses for aquatic life, recreation, or visual enjoyment are reduced violates federally required standards, even though water quality is not measurably altered, (i.e. the use is violated, therefore the standard is violated).

The department does not agree with this interpretation of federal law. Section 101(g) of the Federal Clean Water Act provides that "...the authority of each state to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act." This section was enacted in 1977 to preclude using the federal clean water act as justification for efforts to block the granting of water rights for out of stream use under state law. State law gives the Water Resources Department responsibility for water use and allocation decisions, and DEQ responsibility for assuring that water quality is adequate to support the designated uses. The passage of HB 2990 by the 1985 legislature further clarifies the intent with respect to hydroelectric projects. The Water Policy Review Board (WPRB) and the Energy Facilities Siting Council (EFSC) are the principal agencies responsible for implementing state policy regarding the impact of hydroelectric generation on other uses of the state water resources. DEQ actions are expected to reinforce WPRB/EFSC decisions consistent with federal requirements.

Water Quality Standards adopted by the EQC have been approved by EPA as meeting the requirements of Section 303 relative to water quality standards. The EQC rules identify the uses that are to be protected and the standards (quality criteria) that must be met in order to support the uses. Compliance with the standards is considered to be evidence of use protection.

Based on the above discussion, it seems clear that any project which causes a water quality criteria or standards (adopted to assure protection of a beneficial use) to be violated does not qualify for certification. It further seems clear that a project which alters stream flow but does not cause a change in water quality is not precluded by federal law from certification.

An additional component of this issue is whether the Federal Clean Water Act allows DEQ flexibility to consider specific requirements of state law other than those specifically and narrowly related to water quality as it makes a 401 decision. As noted, the department believes that the state is afforded discretion in this area. The appeal of the Lava Diversion Project denial to the Court of Appeals will add some clarity to this area of interpretation.

ISSUE -- Is it necessary to establish or modify maximum allowable pollutant loadings before a determination can be made on a 401 certification application?

Discussion --- Section 303(d)(1)(C) of the Federal Clean Water Act requires states to establish total maximum daily pollutant load limits for those stream segments where implementation of federal

effluent guidelines (secondary treatment and best practicable control technology (BPT)) for municipal and industrial discharges will not improve water quality enough to meet water quality standards. The total maximum daily load would be the maximum load the stream segment could assimilate and still meet water quality standards. The total maximum daily load for each parameter would then be allocated to the sources discharging to the stream segment and incorporated into the permit as the discharge limit for more stringent controls.

The Department established pollutant load limits for all permitted discharges prior to passage of the Federal Clean Water Act in 1972. Water quality standards were substantially met with a factor of safety (to accommodate new sources) by the established pollutant load limits. In particular, water quality in the Willamette River improved enough to meet critical low flow period standards for all parameters except bacteria. The Department's Water Quality Management Plan further requires that more stringent treatment be employed by existing sources as necessary to accommodate growth without increasing discharge loads. This program was considered sufficient to meet the intent of Section 303(d)(1)(C) of the Federal Clean Water Act.

Continued study and refinement of load allocations and load limits is desirable and necessary. As priority problem areas are scheduled for water quality studies and update of management plan provisions, load allocations will be evaluated and adjusted as appropriate. This will be an ongoing effort as resources permit.

The department believes that pollutant loadings are appropriately considered in the process of evaluating proposed projects for 401 certifications. The vast majority of projects considered for certification do not involve ongoing discharges. They involve temporary impacts during construction. Where discharges are involved, impacts of discharges must be considered in conjunction with other discharges in the area. If evaluation shows that a proposed addition of a discharge would cause water quality standards to be violated or beneficial uses to be impaired by a change in water quality, certification would be denied.

For example, assume that stream flow is reduced by a diversion of water pursuant to a state water right and the reduced stream flow results in existing discharges downstream causing water quality standards to be exceeded. If a federal permit or license were required for the project which diverts the water, the department would be required to deny 401 certification, because the project would cause an alteration in water quality which would impair beneficial use (standards violation). However, if no federal permit or license was required, and the matter was governed only by state law, DEQ would be required to impose more stringent discharge requirements on the downstream discharges to restore water quality. This is an example of the difference in results when the decision is governed by federal and state laws.

ISSUE -- Should the EQC by rule allow the public to appeal department decisions to the commission although state statutes only require that the applicant be allowed to appeal?

Discussion -- This issue has been considered by the commission before. The commission has previously elected not to extend the administrative appeal process to the general public by rule. Instead, the commission has relied on the courts as the vehicle available for the public to challenge an action of the department or commission.

This is a valid issue that applies to far more than the 401 certification process. The commission may want to direct the department to prepare a discussion paper on this issue for further commission consideration.

In addition to the above issues, there were other recommendations in testimony that the department has considered.

The department has proposed some amendments to the rules presented to the Commission for adoption at the January 25, 1985 meeting. The amendments are intended to further clarify the proposed rules, and address the specific requirements of HB 2990.

Proposed further amendments are as follows:

- 340-48-015 - replace the word "discharge" with the word "activity" as recommended by Mr. Smith.
- 340-48-020(2)(f) - expand the language to more clearly require the applicant to provide background environmental information to demonstrate that the proposed project will comply with water quality requirements.
- 340-48-020(4) - a sentence has been added to require specific request for comments from affected state agencies in response to the provisions of HB 2990.
- 340-48-020(5) - modify the wording in an effort to tighten the language as requested by Chairman Petersen.
- 340-48-020(7) - language has been expanded to reference the new hydro-electric policy and requirements established in HB 2990.
- 340-48-025(2) - paragraphs (f) and (g) were replaced with an adaptation of language taken from HB 2990.

The department does not propose modifications suggested to (1) deny certification based on impacts on beneficial use outside the area of water quality (with exception for specific state law requirements); (2) extend appeal rights; or (3) notify applicants that their application is denied until certification is granted.

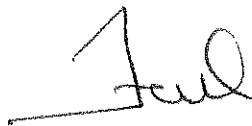
The specific rule amendments are underlined in the proposed rules presented in Attachment A.

Summation

1. The department proposed adoption of rules regarding 401 certification at the January 25, 1985 EQC meeting.
2. The commission considered additional testimony and deferred action pending further deliberations.
3. The legislature has enacted HB 2990 which impacts the 401 certification process.
4. The preceding report presents discussion of several issues regarding the 401 certification process.

Director's Recommendation

Based on the summation, it is recommended that the commission discuss the rules as proposed, make changes as appropriate based on the discussion, and authorize the Department to take the draft contained in Attachment A, as modified, back out to public hearing.



Fred Hansen

- Attachments:
- A. Proposed Rules
 - B. January 25, 1985 Testimony of J. D. Smith
 - C. HB 2990
 - D. January 25, 1985 Staff Report to EQC

Harold L. Sawyer:m
WM329
229-5324
July 19, 1985

Proposed Rules with Modifications
to Reflect Public Comment

DEPARTMENT OF ENVIRONMENTAL QUALITY

Water Quality Program

OREGON ADMINISTRATIVE RULES
Chapter 340, Division 48

DIVISION 48

CERTIFICATION OF COMPLIANCE WITH WATER QUALITY REQUIREMENTS AND STANDARDS.

Purpose

340-48-005 The purpose of these rules is to describe the procedures to be used by the Department of Environmental Quality for receiving and processing applications for certification of compliance with water quality requirements and standards for projects which are subject to federal agency permits or licenses and which may result in any discharge into navigable waters or impact water quality.

Definitions

340-48-010 As used in these rules unless otherwise required by context:

- (1) "Certification" means a written declaration by the Department of Environmental Quality, signed by the Director, that a project or activity subject to federal permit or license requirements will not violate applicable water quality requirements or standards.
- (2) "Clean Water Act" means the Federal Water Pollution Control Act of 1972, PL 92-500, as amended.
- (3) "Coast Guard" means U.S. Coast Guard.
- (4) "Commission" means Oregon Environmental Quality Commission.
- (5) "Corps" means U.S. Army Corps of Engineers.
- (6) "Department" or "DEQ" means Oregon Department of Environmental Quality.
- (7) "Director" means Director of the Department of Environmental Quality or the Director's authorized representative.
- (8) "Local Government" means county and city government.

Certification Required

340-48-015 Any applicant for a federal license or permit to conduct any activity, including but not limited to the construction or operation of facilities which may result in any discharge to waters of the State, must provide the licensing or permitting agency a certification from the Department that any such [discharge] activity will comply with Sections 301, 302, 303, 306, and 307 of the Clean Water Act which generally prescribe effluent limitations, water quality related effluent limitations, water quality standards and implementation plans, national standards of performance for new sources, and toxic and pretreatment effluent standards.

Application for Certification

340-48-020 (1) Except as provided in section (6) below, completed applications for project certification shall be filed directly with the DEQ.

(2) A completed application filed with DEQ shall contain, at minimum, the following information:

- (a) Legal name and address of the project owner.
- (b) Legal name and address of owner's designated official representative, if any.
- (c) Legal description of the project location.
- (d) A complete description of the project proposal, using written discussion, maps, diagrams, and other necessary materials.
- (e) Name of involved waterway, lake, or other water body.
- (f) Copies of the environmental background information required by the federal permitting or licensing agency or such other environmental background information as may be necessary to demonstrate that the proposed project or activity will comply with water quality requirements.
- (g) Copy of any public notice and supporting information, issued by the federal permitting or licensing agency for the project.
- (h) A statement from the appropriate local planning agency that the project is compatible with the acknowledged local comprehensive plan or that the project is consistent with statewide planning goals if the local plan is not acknowledged. If a county is the applicant for a project for which it has also made the land use compatibility determination, the State Land Use Conservation and Development Department may be asked to review and comment on the County's compatibility determination.

(3) The DEQ reserves the right to request any additional information necessary to complete an application or to assist the DEQ to adequately evaluate the project impacts on water quality. Failure to complete an application or provide any requested additional information within the time specified in the request shall be grounds for denial of certification.

(4) In order to inform potentially interested persons of the application, a public notice announcement shall be prepared and circulated in a manner approved by the Director. The notice shall tell of public participation opportunities, shall encourage comments by interested individuals or agencies, and shall tell of any related documents available for public inspection and copying. The Director shall specifically solicit comments from affected state

agencies. The Director shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit written views and comments. All comments received during the 30-day period shall be considered in formulating the Department's position. The Director shall add the name of any person or group upon request to a mailing list to receive copies of public notice.

(5) The Director shall provide an opportunity for the applicant, any affected state, or any interested agency, person, or group of persons to request or petition for a public hearing with respect to certification applications. If the Director determines that [useful] new information may be produced thereby, [or if there is significant public interest in holding a hearing,] a public hearing will be held prior to the Director's final determination. Instances of doubt shall be resolved in favor of holding the hearing. There shall be public notice of such a hearing.

(6) For projects or activities where the Division of State Lands is responsible for compiling a coordinated state response (normally applications requiring permits from the Corps or Coast Guard), the following procedure for application and certification shall apply:

(a) Application to the Federal agency for a permit constitutes application for certification.

(b) Applications are forwarded by the Federal Agency to the Division of State Lands for distribution to affected agencies.

(c) Notice is given by the Federal Agency and Division of State Lands through their procedures. Notice of request for DEQ certification is circulated with the Federal Agency Notice.

(d) All comments including DEQ Water Quality Certification are forwarded to the Division of State Lands for evaluation and coordination of response. The Division of State Lands is responsible for assuring compatibility with the local comprehensive plan or consistency with statewide planning goals.

(7) The Department's evaluation of an application for project certification will include but not be limited to the following:

(a) Existing and potential beneficial uses of surface or groundwater which could be affected by the proposed facility.

(b) Potential impact from the generation and disposal of waste chemicals or sludges at a proposed facility.

(c) Potential modification of surface water quality or quantity.

(d) Potential modification of groundwater quality.

(e) Potential impacts from the construction of intake or outfall structures.

(f) Potential impacts from waste water discharges.

(g) Potential impacts from construction activities.

(h) The project's compliance with plans applicable to Section 208 of the Federal Clean Water Act.

(i) The project's compliance with standards to be established by the Water Policy Review Board and the Energy Facility Siting Council for hydroelectric projects pursuant to HB2990.

Issuance of a Certificate

340-48-025 (1) Within ninety (90) days of receiving a complete application for project certification, the DEQ shall serve written notice upon the applicant that the certification is granted or denied or that a further specified time period is required to process the application. Written notice shall be served in accordance with the provisions of OAR 340-11-097 except that granting of certification may be by regular mail. Any extension of time shall not exceed 1 year from the date of filing a completed application. If the Department fails to take timely action on an application for certification, the certification requirements of Section 401 of the Clean Water Act are waived.

(2) DEQ's Certification for a project shall contain the following information:

- (a) Name of Applicant;
- (b) Project's name and federal identification number (if any);
- (c) Type of project activity;
- (d) Name of water body;
- (e) General location;
- [(f) Statement that the project complies with applicable requirements of the Federal Clean Water Act;]

[(g) Special conditions if necessary to assure compliance with Sections 301, 302, 303, 306, and 307 of the Clean Water Act and state water quality requirements.]

(f) [(h)] Findings that the project is compatible with the local comprehensive plan and/or the statewide planning goals, except for those projects for which the Division of State Lands coordinates the response.

(g) Findings that the proposed project is consistent with:

(A) Rules adopted by the EQC on Water Quality;

(B) Provisions of Section 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, PL 92-500, as amended;

(C) For hydroelectric projects, standards established by the Water Policy Review Board and Energy Facility Siting Council to implement the state hydroelectric policy enacted by the 1985 legislature in HB2990;

(D) Standards of other state and local agencies that the director determines are other appropriate requirements of state law according to Section 401 of the Federal Water Pollution Control Act, PL 92-500, as amended.

(3) If the applicant is dissatisfied with the conditions of any granted certification, the applicant may request a hearing before the Commission. Such requests for a hearing shall be made in writing to the Director within 20 days of the date of mailing of the certification. Any hearing shall be conducted pursuant to the rules of the Commission for contested cases.

(4) Certifications granted pursuant to these rules are valid for the applicant only and are not transferable.

Certification Delivery

340-48-030 For projects where application for certification is filed directly with DEQ by the applicant, the DEQ certification will be returned directly to the applicant. For those applications that are coordinated by the Division of State Lands, DEQ certification will be delivered to the Division of State Lands for distribution to the applicant and the federal permitting agencies as part of the State of Oregon coordinated response.

Denial of Certification

340-48-035 If the Department proposes to deny certification for a project, a written notice setting forth the reasons for denial shall be served upon the applicant following procedures in OAR 340-11-097. The written notice shall advise the applicant of appeal rights and procedures. A copy shall also be provided to the federal permitting agency. The denial shall become effective 20 days from the date of mailing such notice unless within that time the applicant requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the rules of the Commission for contested cases.

Revocation or Suspension of Certification

340-48-040 (1) Certification granted pursuant to these rules may be suspended or revoked if the Director determines that:

- (a) The federal permit or license for the project is revoked.
- (b) The federal permit or license allows modification of the project in a manner inconsistent with the certification.
- (c) The application contained false information or otherwise misrepresented the project.
- (d) Conditions regarding the project are or have changed since the application was filed.
- (e) Special conditions or limitations of the certification are being violated.

(2) Written notice of intent to suspend or revoke shall be served upon the applicant following procedures in OAR 340-11-097. The suspension or revocation shall become effective 20 days from the date of mailing such notice unless within that time the applicant requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be filed with the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the rules of the Commission for contested cases.

GDC:h
WT245.A
Revised 6/25/85

Before the Environmental Quality Commission

of the

State of Oregon

In the matter of the request for)	
adoption of rules for granting)	TESTIMONY OF
water quality standards compliance)	
certification pursuant to require-)	OSCC AND MEDC
ments of section 401 of the Federal)	
Clean Water Act)	

My name is Jack Douglas Smith, residing at 6980 SW 68th Avenue, Portland, OR 97223. I am testifying for and on behalf of the Oregon Shores Conservation Coalition and the Northwest Environmental Defense Center at the Northwestern School of Law at Lewis and Clark University.

We concur, at least in part, with the statement of Lynn Frank in his January 3 letter appended to the DEQ staff report as Attachment F that "This is an issue of great importance to the state and its citizens. In order for the state to play a meaningful role in the federal decision making process on hydroelectric facilities, the state must have an effective instrument for coordinated review of these facilities. We believe that section 401 certification is such an instrument." Mr. Frank's portrayal of section 401 as "an effective instrument for coordinated review" in fact greatly understates the "meaningful role" that section 401 provides the state of Oregon in the federal decision making process on hydroelectric facilities.

The first paragraph in section 401 of the Federal Clean Water Act states bluntly that "No (federal) license or permit shall be granted if certification has been denied by the State..." The final paragraph in section 401 ends with the specification that "Any certification provided under this section shall set forth any effluent limitations and other limitations.... necessary to assure that any applicant for a Federal license or permit will comply with....(applicable sections of the Clean Water Act)....and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section." Section 401 is not simply an instrument for review of federal licensing and permitting activities; it is the instrument available to the state for completely controlling, to the point of absolutely denying, those activities affecting the waters of the state which are subject to federal license or permit.

This is the reason we have been and continue to be so interested in this particular proposal for rules. We believe that DEQ should be responsible for the exercise of a far more aggressive role in asserting the state's interests in federal licensing and permitting activities affecting the state's waters than the presently proposed rules indicate. The burden in section 401 is not placed on the state to provide certification; the burden is on the applicant for the federal license or permit to obtain the necessary certification of compliance from the state, and thereby to provide the state with convincing information and argument as to why the state should not deny this certification.

In the DEQ staff report, on page 5, you will notice that NEDC requested "extensive information relating to the Department's certification reviews during the past 5 years" and that we were "informed that the material is in the department files and is available for (our) review at DEQ offices." We have availed ourselves of and have reviewed this information at the DEQ offices. We have reviewed the files of over 200 applications for certification of Federal Energy Regulatory Commission (FERC) hydroelectric licenses dating from this week back through 1982. In all these applications, we found two which had been denied. One was the Gold Hill Project on the Rogue River (FERC 3210), which was denied because the Oregon Legislature had specifically withdrawn hydroelectric development as a beneficial use for that section of the Rogue River (ORS 538.270). The second was the Lava Diversion Project on the Deschutes River (FERC 5205), which was denied until the project applicant adequately addresses some specific water quality impacts identified by DEQ and until the project applicant obtains a land use compatibility statement from Deschutes County officials. Certifications for all the remaining FERC applications were found to have been either waived or granted outright with a generally amiable one-page letter stating that "the proposed project is not likely to cause any significant change in existing water quality" or similar language. The only application file we found that included any identifiable public notification was that for the Lava Diversion Project. That was also the only application file which contained an evaluation report more comprehensive than the one-page letters waiving or granting the requested certifications. In only the Gold Hill Project denial of certification was there any recognition that the designated uses of the state's waters might be a consideration in the evaluation of certification applications.

Of the five specifically cited provisions of the Federal Clean Water Act with which section 401 requires applicants to provide certification, section 303 includes the broadest representation of the state's interests in its waters. It is section 303(c)(2), for example, which defines the state's water quality standards to consist not only of water quality criteria but also and first the designated uses of the waters involved. It is this section that states: "Such standards shall be such as to protect the public health or welfare, and....shall be established taking into consideration their use and value for....propagation of fish and wildlife, recreational purposes.....and other purposes, and also taking into con-

sideration their use and value for navigation."

It is our observation that DEQ has historically simply waived its opportunity or obligation to deny certification of compliance of FERC license applications with the water use requirements of section 303. Its most recent consideration of such applications, e.g., the Lava Diversion Project on the Deschutes River, was narrowly concerned with impacts on water quality criteria: dissolved oxygen, temperature, turbidity, etc., rather than the broader and more fundamental questions of impact on the use of the affected waters.

A second crucial part of section 303 is the requirement that the state establish the allowable "total maximum daily load" for pollutants based on the water quality needs of the affected waters. The reason for being concerned with this requirement in the 401 certification (or denial) process is that the establishment of any allowable pollutant load will necessarily be a function of streamflow or streamflow conditions. Lower streamflow or impounded flow, for example, will translate generally into a lesser allowable pollutant load; higher streamflow will translate into a higher allowable pollutant load (more available dilution, for example). It is difficult to see how a (FERC or any other) project which proposes to change streamflow conditions can very easily be certified to comply with an established allowable pollutant load when the changed streamflow conditions will change the allowable pollutant load. Certification of compliance with this particular section of the Federal Clean Water Act would seem to require the simultaneous establishing of a new and different "total maximum daily load" for pollutants. We anticipate providing more extensive testimony to the Commission regarding the Department's compliance or lack of compliance with this part of section 303 of the Clean Water Act when the Department's proposed revised water quality standards come eventually before the Commission for adoption.

We hope these comments and observations make clear to the Commission why we are concerned about the adequacy of the proposed rules for section 401 certification of federally licensed or permitted activities. The rules as proposed do not clearly enough indicate or recognize the broad authority granted to the state by section 401 to assert the state's interests in protecting the uses of its waters from such federally licensed or permitted activities. The following are some specific recommendations for changes or additions to the rules presently proposed as Attachment A to the DEQ staff report which we believe will strengthen somewhat these rules.

The first paragraph on page 1 of the staff report speaks of certification of "any such discharge or activity." The Summation section on page 5 of the staff report speaks of a requirement to review and to certify "the proposal" and of "requirements for the protection of public waters." Under the description of Purpose on page 1 of Attachment A is language about certification "for projects." On page 2 of Attachment A, however, under Certification Required is the more narrowly construed description of a

certification of "any such discharge." We recommend that this phrase be changed from "any such discharge" to the more broadly construed any such activity.

On page 2 of Attachment A under the information requirements listed as 340-48-020(2), we recommend the addition of the following subsection: (1) information and evidence demonstrating that the project is compatible and consistent with all designated beneficial uses of the affected waters.

Also on page 2 of Attachment A under 340-48-020(3), to the end of the sentence presently ending with the phrase "project impacts on water quality" we recommend the addition of the words or designated beneficial uses of the affected waters.

On page 4 of Attachment A under issuance of a Certificate, the last sentence under 340-48-025(1) should be stricken in its entirety and replaced with the sentence: The applicant shall be notified promptly that until the Department completes action on the application for certification the certification shall be considered to be denied.

Also on page 4 of Attachment A under 340-48-025(2), we recommend the addition of the following subsection: (1) Findings that the project is compatible and consistent with all designated beneficial uses of the affected waters.

It is our belief that these recommended changes and additions will make more clear the role that section 401 provides to the State of Oregon in controlling federally licensed or permitted activities affecting the waters of the state and the responsibility that DEQ has in affirmatively exercising that role. On behalf of both the **Oregon Shores Conservation Coalition** and the **Northwest Environmental Defense Center**, I thank you for your attention and consideration.

JDS:pc
1/25/85

63rd OREGON LEGISLATIVE ASSEMBLY--1985 Regular Session

HOUSE AMENDMENTS TO HOUSE BILL 2990

By JOINT COMMITTEE ON WATER POLICY

May 31

Amended Summary

[Declares state policy to protect natural resources and other beneficial uses of water in process of permitting activity that uses waters of this state. Prohibits Water Policy Review Board or Energy Facility Siting Council from issuing permit, license or site certificate for project that impacts certain natural resources without finding of need for additional power.]

Requires Director of Department of Environmental Quality to make certain findings before certifying federally licensed or permitted project. Makes related changes.

[Declares emergency, effective on passage.]

Declares state policy to permit siting of hydroelectric power projects subject to strict standards to protect natural resources. Prescribes minimum standards for consideration by Water Policy Review Board and Energy Facility Siting Council. Requires Department of Environmental Quality certifications under Federal Clean Water Act to be consistent with specified standards. Requires notification of landowners potentially affected.

Prescribes October 1, 1985, effective date.

- 1 On page 1 of the printed bill, line 2, delete "543.150," and insert "543.135, 543.220 and" and delete "and".
- 2 Delete line 3 and insert "; and prescribing an effective date."
- 3 Delete lines 5 through 26 and pages 2 through 7 and insert:
- 4 **"SECTION 1.** Sections 2 and 3 of this Act are added to and made a part of ORS 543.010 to 543.620.
- 5 **"SECTION 2.** The Legislative Assembly declares that it is the policy of the State of Oregon:
- 6 "(1) To protect the natural resources of this state from possible adverse impacts caused by the use of the
- 7 waters of this state for the development of hydroelectric power.
- 8 "(2) To permit siting of hydroelectric projects subject to strict standards established to protect the natural
- 9 resources of Oregon.
- 10 "(3) To require the Water Policy Review Board, the Energy Facility Siting Council, the Department of
- 11 Environmental Quality and other affected state agencies to participate to the fullest extent in any local, state or
- 12 federal proceedings related to hydroelectric power development in order to protect the natural resources of
- 13 Oregon.
- 14 **"SECTION 3.** (1) In order to carry out the policy set forth in section 2 of this 1985 Act, the following
- 15 minimum standards shall apply to any action of the Water Policy Review Board relating to the development of
- 16 hydroelectric power in Oregon:
- 17 "(a) The anadromous salmon and steelhead resources of Oregon shall be preserved. The board shall not
- 18 approve activity that may result in mortality or injury to anadromous salmon and steelhead resources or loss of
- 19 natural habitat of any anadromous salmon and steelhead resources except when an applicant proposes to modify
- 20 an existing facility or project in such a manner that can be shown to restore, enhance or improve anadromous fish
- 21 populations within that river system.

1 “(b) Any activity related to hydroelectric development shall be consistent with the provisions of the
2 Columbia River Basin Fish and Wildlife Program providing for the protection, mitigation and enhancement of
3 the fish and wildlife resources of the region as adopted by the Pacific Northwest Electric Power and Conservation
4 Planning Council pursuant to Public Law 96-501.

5 “(c) Except as provided in this paragraph, no activity may be approved that results in a net loss of wild game
6 fish or recreational opportunities. If a proposed activity may result in a net loss of any of the above resources, the
7 board may allow mitigation if the board finds the proposed mitigation in the project vicinity is acceptable.
8 Proposed mitigation which may result in a wild game fish population or the fishery the wild game fish population
9 provides, being converted to a hatchery dependent resource is not acceptable mitigation. A water dependent
10 recreational opportunity must be mitigated by another water dependent recreational opportunity. Mitigation of
11 water dependent recreational opportunities which, in the judgment of the board, are of state-wide significance
12 with a recreational opportunity that is readily available on other waters of this state is not acceptable mitigation.
13 In deciding whether mitigation is acceptable, the board shall consult with other local, state and federal agencies.

14 “(d) Other natural resources in the project vicinity including water quality, wildlife, scenic and aesthetic
15 values, historic, cultural and archaeological sites, shall be maintained or enhanced. No activity may be approved
16 which, in the judgment of the board after balancing gains and losses to all affected natural resources, may result in
17 a net loss of natural resources. In determining whether the proposed activity may result in a net loss of natural
18 resources, the board may consider mitigation if the board determines the proposed mitigation in the project
19 vicinity is acceptable. Mitigation may include appropriate measures considered necessary to meet the net loss
20 standard. In determining whether mitigation is acceptable the board shall consult with appropriate state, federal
21 and local agencies.

22 “(2) The board shall adopt all necessary rules to carry out the policy set forth in section 2 of this 1985 Act and
23 to implement the minimum standards set forth in subsection (1) of this section. In the absence of implementing
24 rules, any action of the board relating to hydroelectric development shall comply with the standards as set forth in
25 this section. In adopting rules under this subsection, the board shall consult with the Energy Facility Siting
26 Council in order to coordinate rules adopted under this section with rules adopted by the Energy Facility Siting
27 Council under section 5 of this 1985 Act.

28 “SECTION 4. Section 5 of this Act is added to and made a part of ORS 469.300 to 469.570.

29 “SECTION 5. (1) In order to carry out the policy set forth in section 2 of this 1985 Act, the following
30 minimum standards shall apply to any action of the Energy Facility Siting Council relating to the development of
31 hydroelectric power projects in excess of 25 megawatts in Oregon:

32 “(a) The anadromous salmon and steelhead resources of Oregon shall be preserved. The council shall not
33 approve activity that may result in mortality or injury to anadromous salmon and steelhead resources or loss of
34 natural habitat of any anadromous salmon and steelhead resources except when an applicant proposes to modify
35 an existing facility or project in such a manner that can be shown to restore, enhance or improve anadromous fish
36 populations within that river system.

37 “(b) Any activity related to hydroelectric development shall be consistent with the provisions of the
38 Columbia River Basin Fish and Wildlife Program providing for the protection, mitigation and enhancement of

1 the fish and wildlife resources of the region as adopted by the Pacific Northwest Electric Power and Conservation
2 Planning Council pursuant to Public Law 96-501.

3 "(c) Except as provided in this paragraph, no activity may be approved that results in a net loss of wild game
4 fish or recreational opportunities. If a proposed activity may result in a net loss of any of the above resources, the
5 council may allow mitigation if the council finds the proposed mitigation in the project vicinity is acceptable.
6 Proposed mitigation which may result in a wild game fish population or the fishery the wild game fish population
7 provides, being converted to a hatchery dependent resource is not acceptable mitigation. A water dependent
8 recreational opportunity must be mitigated by another water dependent recreational opportunity. Mitigation of
9 water dependent recreational opportunities which, in the judgment of the council, are of state-wide significance
10 with a recreational opportunity that is readily available on other waters of this state is not acceptable mitigation.
11 In deciding whether mitigation is acceptable, the council shall consult with other local, state and federal agencies.

12 "(d) Other natural resources in the project vicinity including water quality, wildlife, scenic and aesthetic
13 values, historic, cultural and archeological sites shall be maintained or enhanced. No activity may be approved
14 which, in the judgment of the council, after balancing gains and losses to all affected natural resources, may result
15 in a net loss of natural resources. In determining whether the proposed activity may result in a net loss of natural
16 resources, the council may consider mitigation if the council determines the proposed mitigation in the project
17 vicinity is acceptable. Mitigation may include appropriate measures considered necessary to meet the net loss
18 standard. In determining whether mitigation is acceptable the council shall consult with appropriate state, federal
19 and local agencies.

20 "(2) The council shall adopt all necessary rules to carry out the policy set forth in section 2 of this 1985 Act
21 and to implement the minimum standards set forth in subsection (1) of this section. In the absence of
22 implementing rules, any action of the council relating to hydroelectric development shall comply with the
23 standards as set forth in this section. In adopting rules under this subsection, the council shall consult with the
24 Water Policy Review Board in order to coordinate rules adopted under this section with rules adopted by the
25 Water Policy Review Board under section 3 of this 1985 Act.

26 "SECTION 6. Sections 7 and 8 of this Act are added to and made a part of ORS 468.700 to 468.778.

27 "SECTION 7. The Director of the Department of Environmental Quality shall approve or deny certification
28 of any federally licensed or permitted activity related to hydroelectric power development, under section 401 of
29 the Federal Water Pollution Control Act, P.L. 92-500, as amended. In making a decision as to whether to approve
30 or deny such certification, the director shall:

31 "(1) Solicit and consider the comments of all affected state agencies relative to adverse impacts on water
32 quality caused by the project, according to sections 301, 302, 303, 306 and 307 of the Federal Water Pollution
33 Control Act, P.L. 92-500, as amended.

34 "(2) Approve or deny a certification only after making findings that the approval or denial is consistent with:

35 "(a) Rules adopted by the Environmental Quality Commission on water quality;

36 "(b) Provisions of sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L.
37 92-500, as amended;

1 “(c) Standards established in sections 3 and 5 of this 1985 Act and rules adopted by the Water Policy Review
2 Board and the Energy Facility Siting Council implementing such standards; and

3 “(d) Standards of other state and local agencies that are consistent with the standards of sections 3 and 5 of
4 this 1985 Act and that the director determines are other appropriate requirements of state law according to
5 section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

6 **“SECTION 8.** Within 60 days after the Department of Environmental Quality receives notice that any
7 federal agency is considering a permit or license application related to a change to a hydroelectric project or
8 proposed hydroelectric project that was previously certified by the director of the Department of Environmental
9 Quality according to section 401 (1) of the Federal Water Pollution Control Act P.L. 92-500, as amended:

10 “(1) The director shall:

11 “(a) Solicit and consider the comments of all affected state agencies relative to adverse impacts on water
12 quality caused by changes in the project, according to sections 301, 302, 303, 306 and 307 of the Federal Water
13 Pollution Control Act, P.L. 92-500, as amended.

14 “(b) Approve or deny a certification of the proposed change after making findings that the approval or denial
15 is consistent with:

16 “(A) Rules adopted by the Environmental Quality Commission on water quality;

17 “(B) Provisions of sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L.
18 92-500, as amended;

19 “(C) Standards established in sections 3 and 5 of this 1985 Act and rules adopted by the Water Policy Review
20 Board and the Energy Facility Siting Council implementing such standards; and

21 “(D) Standards of other state and local agencies that are consistent with the standards of sections 3 and 5 of
22 this 1985 Act and that the director determines are other appropriate requirements of state law according to
23 section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

24 “(2) On the basis of the evaluation and determination under subsection (1) of this section, the director shall
25 notify the appropriate federal agency that:

26 “(a) The proposed change to the project is approved; or

27 “(b) There is no longer reasonable assurance that the project as changed complies with the applicable
28 provisions of the Federal Water Pollution Control Act, P.L. 92-500, as amended, because of changes in the
29 proposed project since the director issued the construction license or permit certification.

30 **“SECTION 9.** Sections 10 to 12 of this Act are added to and made a part of ORS 543.010 to 543.620.

31 **“SECTION 10.** (1) Whenever the Water Resources Department receives an application to appropriate water
32 for hydroelectric power under ORS 537.140 to 537.320 or for a hydroelectric permit or license under ORS
33 543.010 to 543.620, the department shall determine whether the impacts of the project would be cumulative with:

34 “(a) Impacts of other proposed hydroelectric projects for which an application is pending before the
35 department or before the Energy Facility Siting Council under ORS 469.320 to 469.440; or

36 “(b) Existing hydroelectric projects in the same river basin.

37 “(2) If the department determines that there is no possibility that the hydroelectric projects proposed in
38 pending applications or existing projects may have cumulative effects, the department shall issue an order setting

1 forth the department's determination that there are no cumulative effects and the department's decision that
2 consolidated review is not required.

3 "(3) If the department determines that pending applications or existing projects may have cumulative
4 effects, the department shall conduct a consolidated review before approving any application in the affected river
5 basin. A consolidated review process shall be conducted as a contested case hearing under the applicable
6 provisions of ORS 183.310 to 183.550 and shall include a study of the individual and cumulative effects of
7 proposed hydroelectric projects for which applications are pending before the department or the Energy Facility
8 Siting Council and existing hydroelectric projects. In its final order on an application, the department shall
9 include its findings on cumulative impacts. The findings of the department under this section must be sufficient
10 to support the department's decision to approve or deny an application.

11 "(4) Any application for a project in the same river basin filed after the department begins a consolidated
12 review contested case hearing shall not be reviewed until the department has issued final findings on cumulative
13 effects for all projects included in the consolidated review proceeding.

14 "(5) At the request of an applicant for a permit to appropriate water for hydroelectric purposes under ORS
15 537.140 to 537.320 or for a permit or license under ORS 543.010 to 543.620, the department may immediately
16 upon receiving such application begin the consolidated review proceeding under subsection (3) of this section.

17 "**SECTION 11.** The Water Resources Department shall immediately initiate rulemaking proceedings
18 according to the applicable provisions of ORS 183.310 to 183.550 to implement the consolidated review process
19 under section 10 of this 1985 Act. Before adoption of the rules, the department shall submit the rules to the Joint
20 Legislative Committee on Water Policy for review and recommendation.

21 "**SECTION 12.** Any application pending before the Water Resources Department for which the record for
22 the hearing under ORS 537.170 or 543.225 has not been closed on or before the effective date of this Act shall be
23 subject to the consolidated review process set forth in section 10 of this 1985 Act and to rules adopted by the
24 Water Policy Review Board under section 11 of this 1985 Act.

25 "**SECTION 13.** Sections 14 to 16 of this Act are added to and made a part of ORS 469.300 to 469.570.

26 "**SECTION 14.** (1) Whenever the Energy Facility Siting Council receives an application for a site certificate
27 for a hydroelectric project under ORS 469.320 to 469.440, the council shall determine whether the impacts of the
28 project would be cumulative with:

29 "(a) Impacts of other proposed hydroelectric projects for which an application is pending before the council
30 or before the Water Resources Department under ORS 537.140 to 537.320 or 543.010 to 543.620; or

31 "(b) Existing hydroelectric projects in the same river basin.

32 "(2) If the council determines that there is no possibility that the hydroelectric projects proposed in pending
33 applications or existing projects may have cumulative effects, the council shall issue an order setting forth the
34 council's determination that there are no cumulative effects and the council's decision that consolidated review is
35 not required.

36 "(3) If the council determines that pending applications or existing projects may have cumulative effects, the
37 council shall conduct a consolidated review before issuing any site certificate for a hydroelectric project in the
38 affected river basin. A consolidated review process shall be conducted as a contested case hearing under the

1 applicable provisions of ORS 183.310 to 183.550 and shall include a study of the individual and cumulative
2 effects of proposed hydroelectric projects for which applications are pending before the council or the Water
3 Policy Review Board and existing hydroelectric projects. In its final order on a site certificate, the council shall
4 include its findings on cumulative impacts. The findings of the council under this section must be sufficient to
5 support the council's decision to issue or deny a site certificate.

6 "(4) The council shall not issue a site certificate for any application for a project in the same river basin filed
7 after the council begins a consolidated review contested case hearing until the council issues final findings on
8 cumulative effects for all projects included in the consolidated review proceeding.

9 "(5) At the request of an applicant for a site certificate for a hydroelectric project under ORS 469.320 to
10 469.440, the council may immediately upon receiving such application begin the consolidated review proceeding
11 under subsection (3) of this section.

12 "(6) The time limits for review of the applications provided by ORS 469.370 are not applicable to
13 applications for site certificates subject to this section.

14 "**SECTION 15.** The Energy Facility Siting Council shall immediately initiate rulemaking proceedings
15 according to the applicable provisions of ORS 183.310 to 183.550 to implement the consolidated review process
16 under section 14 of this 1985 Act. Before adoption of the rules, the council shall submit the rules to the Joint
17 Legislative Committee on Water Policy for review and recommendation.

18 "**SECTION 16.** Any application pending before the Energy Facility Siting Council for which the record for
19 the hearing under ORS 469.370 has not been closed on or before the effective date of this Act shall be subject to
20 the consolidated review process set forth in section 14 of this 1985 Act and to rules adopted by the council under
21 section 15 of this 1985 Act.

22 "**SECTION 17.** ORS 469.370 is amended to read:

23 "469.370. (1) The council shall hold public hearings in the affected area and elsewhere, as it deems necessary,
24 on the application for a site certificate. At the conclusion of its hearings the council shall either approve or reject
25 the application. The council must make its decision by the affirmative vote of at least four members, approving
26 or rejecting any application for a certificate.

27 "(2) Rejection or approval of an application, together with any conditions that may be attached to the
28 certificate, shall be subject to judicial review as provided in ORS 469.400 (1).

29 "(3) The council shall either approve or reject an application for a site certificate:

30 "(a) Within 24 months after filing an application for a nuclear installation, or for a thermal power plant,
31 other than that described in paragraph (b) of this subsection, with a name plate rating of more than 200,000
32 kilowatts;

33 "(b) Within nine months after filing of an application for a site certificate for a combustion turbine power
34 plant, a geothermal-fueled power plant or an underground storage facility for natural gas;

35 "(c) Within six months after filing an application for a site certificate for an energy facility, if the application
36 is:

37 "(A) To expand an existing industrial facility to include an energy facility;

1 “(B) To expand an existing energy facility to achieve a nominal electric generating capacity of between
2 25,000 and 50,000 kilowatts; or

3 “(C) To add generating capacity to an existing dam; or

4 “(d) Within 12 months after filing an application for a site certificate for any other energy facility.

5 **“(4) The council shall reject an application for a site certificate for a hydroelectric project if the council finds
6 the project does not comply with the standards set forth in section 5 of this 1985 Act or rules adopted by the
7 council under section 5 of this 1985 Act.**

8 **“SECTION 18. ORS 537.160 is amended to read:**

9 “537.160. (1) Subject to the provisions of subsections (2) and (3) of this section, and of ORS 537.170 to
10 537.190, the Water Resources Director shall approve all applications made in proper form which contemplate
11 the application of water to a beneficial use, unless the proposed use conflicts with existing rights.

12 “(2) No application for a permit to appropriate waste or seepage water, which is to be carried through an
13 existing ditch or canal not owned wholly by the applicant, shall be approved until the applicant has filed with the
14 director an agreement between the applicant and the owner of the ditch or canal, authorizing its use by the
15 applicant to carry the water.

16 “(3) The director shall reject every application for a permit to appropriate water in excess of a flow of 10
17 cubic feet per second, concerning which the applicant has failed, after 30 days' notice and demand from the
18 director, to furnish proof satisfactory to [him] the director of the applicant's ability to construct the proposed
19 project, and of [his] the applicant's intention in good faith to construct it with due diligence.

20 **“(4) The director shall reject every application for a permit to appropriate water to develop hydroelectric
21 power if the director finds that the proposed project does not comply with the standards set forth in section 3 of
22 this 1985 Act or rules adopted by the board under section 3 of this 1985 Act.**

23 **“SECTION 19. ORS 537.170 is amended to read:**

24 “537.170. (1) If, in the judgment of the Water Resources Director, the proposed use may prejudicially affect
25 the public interest, or is to develop hydroelectric power in excess of 100 theoretical horsepower, the **Water Policy
26 Review Board** shall hold a public hearing on the application on proper notice to the applicant and to anyone
27 objecting thereto.

28 **“(2) If applicable, an application to appropriate water for the generation of electricity submitted under ORS
29 537.140 shall be included in the consolidated review and hearings process under section 10 of this 1985 Act.**

30 “(3) If, in the opinion of the board, sufficient information is not available to enable the board to determine
31 whether or not the proposed use would impair or be detrimental to the public interest, the board may enter an
32 interim order continuing the hearing for a period not to exceed three years, unless extended by the board, in order
33 to afford all interested persons an opportunity to complete investigations to obtain the required information. The
34 interim order may specify in particular the information required for the determination by the board.

35 “[(2)] (4) If, after the hearing, the board determines that the proposed use **does not comply with the standards
36 set forth in section 3 of this 1985 Act or rules adopted by the board under section 3 of this 1985 Act or would
37 otherwise** impair or be detrimental to the public interest, it shall enter an order rejecting the application or

1 requiring its modification to conform to the public interest, to the end that the highest public benefit may result
2 from the use to which the water is applied. If, after the hearing, the board determines that the proposed use would
3 not impair or be detrimental to the public interest, it shall enter an order approving the application. An order
4 approving an application or requiring its modification may set forth any or all of the provisions or restrictions to
5 be included in the permit concerning the use, control and management of the water to be appropriated for the
6 project, including, but not limited to, a specification of reservoir operation and minimum releases to protect the
7 public interest.

8 “[(3)] (5) In determining whether the proposed use would impair or be detrimental to the public interest, the
9 Water Policy Review Board shall have due regard for:

10 “(a) Conserving the highest use of the water for all purposes, including irrigation, domestic use, municipal
11 water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire
12 protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the
13 water may be applied for which it may have a special value to the public.

14 “(b) The maximum economic development of the waters involved.

15 “(c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood
16 control.

17 “(d) The amount of waters available for appropriation for beneficial use.

18 “(e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.

19 “(f) All vested and inchoate rights to the waters of this state or to the use thereof, and the means necessary to
20 protect such rights.

21 “(g) The state water resources policy formulated under ORS 536.300 to 536.350 and 537.505 to 537.525.

22 “[(4)] (6) After the entry of the order specified in subsection [(2)] (4) of this section, the application for a
23 permit shall be referred to the Water Resources Director for [*such*] further proceedings [*as are not inconsistent*
24 *therewith*] **consistent with the order.**

25 “SECTION 20. ORS 543.225 is amended to read:

26 “543.225. (1) The Water Resources Director shall refer any application or amended application for a
27 preliminary permit or for a license for a major project of more than 100 theoretical horsepower to hearing, and
28 shall also refer to hearing, an application for preliminary permit or license for a minor project of less than 100
29 theoretical horsepower if the board concludes it is in the public interest to do so.

30 “(2) The board shall hold a public hearing on an application referred under subsection (1) of this section, on
31 proper notice to the applicant and to each protestant, if any. If, after the hearing, the board determines that the
32 proposed project **does not comply with the standards set forth in section 3 of this 1985 Act or rules adopted by the**
33 **board under section 3 of this 1985 Act, or** would otherwise impair or be detrimental to the public interest so far as
34 the coordinated, integrated state water resources policy is concerned, it shall enter an order rejecting the
35 application or requiring its modification to conform to such public interest, to the end that the highest public
36 benefit may result from the proposed project. The order may set forth any or all of the provisions or restrictions
37 to be included in a preliminary permit or license concerning the use, control and management of the water to be

1 appropriated for the project, including, but not limited to, a specification of reservoir operation and minimum
2 releases to protect the public interest.

3 “(3) In determining whether the proposed project would impair or be detrimental to [such] the public
4 interest, the board shall have due regard for:

5 “(a) Conserving the highest use of the water for all purposes, including irrigation, domestic use, municipal
6 water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire
7 protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the
8 water may be applied for which it may have a special value to the public.

9 “(b) The maximum economic development of the waters involved.

10 “(c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood
11 control.

12 “(d) The amount of waters available for appropriation for beneficial use.

13 “(e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.

14 “(f) All vested and inchoate rights to the waters of this state or to the use thereof, and the means necessary to
15 protect such rights.

16 “(g) The state water resources policy formulated under ORS 536.300 to 536.350 and 537.505 to 537.525.

17 “(4) After the entry of the order specified in subsection (2) of this section, the application for a preliminary
18 permit or for a license shall be referred to the Water Resources Director for such further proceedings as are not
19 inconsistent therewith.

20 “SECTION 21. Section 22 of this Act is added to and made a part of ORS 537.140 to 537.230.

21 “SECTION 22. (1) Whenever an application is made for a permit to appropriate water for hydroelectric
22 purposes, the board shall give written notice of the filing of the application to the owner of any land that is:

23 “(a) Adjacent to any portion of the stream in which the quantity of water will be decreased by the project; or

24 “(b) Adjacent to the site of the proposed hydroelectric project.

25 “(2) The board shall also publish notice of the application once each week for at least four successive weeks
26 and for such further time, if any, as the board shall determine, in a newspaper of general circulation in each
27 county in which the project covered by the application is located.

28 “SECTION 23. ORS 543.220 is amended to read:

29 “543.220. (1) Whenever an application is made for a preliminary permit and after said application has been
30 referred to hearing, the board shall give written notice of the filing of the application to:

31 “(a) Any municipality or other person or corporation which, in the judgment of the board, is likely to be
32 interested in or affected [thereby,] by the proposed project; and

33 “(b) The owner of any land that is:

34 “(A) Adjacent to any portion of the stream in which the quantity of water will be decreased by the project; or

35 “(B) Adjacent to the site of the proposed project.

36 “(2) The board shall also publish notice of the application once each week for at least four successive weeks
37 and for such further time, if any, as the board shall determine, in a newspaper of general circulation in each
38 county in which the project covered by the application is located.

1 " [(2)] (3) No application for the appropriation or use of water for the development of 1,000 theoretical
2 horsepower or more shall be granted until at least six months after the application for a preliminary permit has
3 been filed.

4 "SECTION 24. ORS 543.135 is amended to read:

5 "543.135. (1) In any case where a hydroelectric project has been licensed by the Federal Power Commission,
6 as of March 16, 1961, and said project has been constructed and is in operation without license under ORS
7 543.010 to 543.620, 543.705 to 543.830 and 543.990, or when such a federally licensed project comprises more
8 than one hydroelectric plant, as soon as each hydroelectric plant in said license has been constructed and is in
9 operation, the Water Resources Director may, upon application made therefor as provided in ORS 543.010 to
10 543.620, 543.705 to 543.830 and 543.990 and without public hearing, grant a license for such project, waiving and
11 modifying such of the terms, conditions and requirements of ORS 543.010 to 543.620, as the Water Resources
12 Director, by order, after full investigation, finds to be in conflict with the license issued by the Federal Power
13 Commission, except the period for which license may be issued and the annual charge as determined by the
14 Water Resources Director under ORS 543.300 (5). An application for license under this section shall not be
15 subject to referral to the Water Policy Review Board under provisions of ORS 543.225 and shall not be subject to
16 the provisions of ORS 543.220 [(2)] (3).

17 "(2) Nothing in this section is to be construed to authorize any person, firm or corporation to begin or
18 construct any water power project before obtaining a license for such project.

19 "SECTION 25. The landowner notification requirements under ORS 543.220 and section 22 of this Act
20 shall apply to any application for a permit to appropriate water for hydroelectric purposes under ORS 537.140 to
21 537.230 or for a preliminary permit under ORS 543.220 for which a hearing has not yet been held before the
22 Water Policy Review Board, or, if for less than 100 theoretical horsepower, has not yet been acted upon by the
23 Water Resources Director on or before the effective date of this Act.

24 "SECTION 26. This Act shall apply to any of the following applications for which the hearing record has not
25 been closed on or before the effective date of this Act:

26 "(1) An application for a permit to appropriate water for hydroelectric purposes under ORS 537.140 to
27 537.211.

28 "(2) An application for a preliminary permit or license for a hydroelectric power project under ORS 543.010
29 to 543.620.

30 "(3) An application for a site certificate for a hydroelectric power project under ORS 469.300 to 469.570.

31 "SECTION 27. Nothing in this Act applies to any hydroelectric project in excess of 25 megawatts for which
32 funding has been approved by the governing body of a city on or before May 15, 1985.

33 "SECTION 28. This Act takes effect on October 1, 1985."



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. F, January 25, 1985, EQC Meeting

Request for Adoption of Rules for Granting Water Quality Standards Compliance Certification Pursuant to Requirements of Section 401 of the Federal Clean Water Act

Background

Any person who applies for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities which may result in any discharge into navigable waters is required by Section 401 of the Federal Clean Water Act to obtain a water quality compliance certification from the state in which the discharge originates. That certification must state that any such discharge or activity will comply with applicable effluent limitations, water quality standards and implementation plans, national standards of performance for new sources, and toxic and pretreatment effluent standards adopted pursuant to the Clean Water Act.

The Department has been implementing this section of the federal law since 1973, without having adopted procedural rules regarding certification. The DEQ has evaluated slightly over 5400 waterway project proposals under federal permitting programs since 1975. Approximately 1800 of these required water quality certification.

Until recently, nearly all requests for certification have been for projects in navigable waters or adjacent wetlands requiring permits from the U.S. Army Corps of Engineers or the U.S. Coast Guard. In both of these cases the State of Oregon has a well established agency coordination program where the Division of State Lands receives applications from the applicant (by way of the federal agency), distributes them to natural resource agencies for review and comment, and compiles comments into a coordinated state response to the applicant. Under this coordinated program, the federal agency issues public notice of the project on behalf of all of the agencies. DEQ's notice of request for certification is circulated with the project information package by the federal agency.

DEQ's certification is forwarded to the Division of State Lands. The coordinated response is then released by the Division of State Lands when agency comments are compiled and the project is determined to be compatible with land use requirements. This process has been quite efficient and effective.

Since few permits from other federal agencies were encountered, no formal procedure for processing requests was established.

Recently, numerous applications for certification of projects subject to licensing by the Federal Energy Regulatory Commission have demonstrated the need to clarify procedures for receiving applications and processing certifications pursuant to Section 401 of the Clean Water Act.

There were two basic alternatives available at that time. The easiest would have been to continue as in the past with some administrative clarification of procedures but without adopting rules. While this may be satisfactory in most cases, there will likely be times when such informal procedures will lead to problems--particularly if a certification is challenged.

The preferred alternative was to adopt procedural rules which clearly define the procedure for receiving applications, giving public notice as required by Section 401 of the Clean Water Act, and issuance or denial of certification. Draft rules were written to formalize and continue the present streamlined procedure for coordinated agency response through the Division of State Lands for U.S. Corps of Engineers and U.S. Coast Guard permit applications. In addition, the draft rules define procedures for receiving, processing, and taking final actions on all other applications for certification.

On September 14, 1984, the Commission authorized a public hearing on the draft rules. The agenda item prepared for that Commission meeting is attached as background for this report (Attachment E).

Notice was given by publishing in the Secretary of State's Bulletin November 1, 1984, and by mailing to the Department's rule making mailing list on October 23, 1984. A hearing was held at 1 p.m., November 28, 1984. The hearing record remained open until 5 p.m. The hearing officer report is attached as Attachment B.

Discussion and Evaluation of Testimony

As noted in the hearing officer's report, the Deschutes and Coos County Planning Departments wanted the proposed rule 340-48-020(6)(d) rewritten so that it did not appear that the Division of State Lands was preempting the counties in land use compatibility determinations. Although most land use compatibility determinations are provided by local planning agencies, state law does not preclude other parties from making land use findings where

appropriate. In order to clarify the issue, but not preclude any of the various mechanisms for arriving at adequate land use compatibility determinations, the rules have been modified to state that the Division of State Lands is responsible to assure that the compatibility determination has been made rather than being responsible for determining compatibility.

The Baker County Planning Department suggested that the required land use compatibility statement from a local planning agency could result in a conflict of interest if the county was also the applicant for the permit or license requiring certification. Legal counsel disagrees that a conflict of interest occurs in that circumstance. However, in order to provide some response to that concern, language has been added to the rules to indicate that the State Land Conservation and Development Department may be asked to review the county determinations in those instances.

Testimony received at the public hearing suggested that the draft rules were inadequate because they did not include "specific factors" the Department would evaluate before certifying a project's compliance with applicable portions of the Federal Clean Water Act and State Water Quality Standards. It was also suggested that the review evaluate compliance with applicable 208 plans.

Because each project is different, it is hard to identify common factors which could be used in addressing all projects. However, in order to address those concerns, the following review factors have been added to the proposed rules:

1. Existing and potential beneficial uses of surface water or groundwater which could be affected by the proposed facility.
2. Potential impact from the generation and disposal of waste chemicals or sludges at the proposed facility.
3. Potential modification of surface water quality or quantity.
4. Potential modification of groundwater quality.
5. Potential impacts from the construction of intake or outfall structures.
6. Potential impacts from waste water discharges.
7. Potential impacts from construction activities.
8. The project's compliance with applicable 208 plans.

Testimony at the hearing also suggested that the public participation procedures should be equivalent to the NPDES permitting process found in OAR 340-45-035. In response to that request, 340-48-020(4) has been reworded to more closely compare with the public participation procedures in OAR 340-45-035. Of course, there are several agencies involved in reviewing these projects. The public participation procedure in the proposed rules only pertains to areas under DEQ review.

Other testimony at the public hearing suggested that the Department is currently in violation of Section 303 of the Federal Clean Water Act in that the total maximum daily loading of pollutants has not been established for each of the state's river basins. It was suggested that determination should precede or at least be concurrent with these rules.

Staff do not agree with the view that the Department is in violation of Section 303 of the Clean Water Act. Staff also do not believe that further efforts to establish total maximum daily loads should be a prerequisite to adoption of procedural rules for certification under Section 401.

Section 303(d)(1)(C) of the Federal Clean Water Act requires states to establish total maximum daily pollutant load limits for those stream segments where implementation of federal effluent guidelines (secondary treatment and BPT) for municipal and industrial discharges will not improve water quality enough to meet water quality standards. The total maximum daily load would be the maximum load the stream segment could assimilate and still meet water quality standards. The total maximum daily load for each parameter would then be allocated to the sources discharging to the stream segment and incorporated into the permit as the discharge limit for more stringent controls.

The Department established pollutant load limits for all permitted discharges prior to passage of the Federal Clean Water Act in 1972. Water quality standards were substantially met with a factor of safety (to accommodate new sources) by the established pollutant load limits. In particular, water quality in the Willamette River improved enough to meet critical low flow period standards for all parameters except bacteria. The Department's Water Quality Management Plan further requires that more stringent treatment be employed by existing sources as necessary to accommodate growth without increasing discharge loads. This program was considered sufficient to meet the intent of Section 303(d)(1)(C).

The Department agrees that continued study and refinement of load allocations and load limits is desirable and necessary. As priority problem areas are scheduled for water quality studies and update of management plan provisions, load allocations will be evaluated and adjusted as appropriate. This will be an ongoing effort as resources permit.

During the public participation period, the Department received a request from the Northwest Environmental Defense Center (NEDC) for extensive information relating to the Department's certification reviews during the past 5 years and all pending applications. They have been informed that the material is in the department files and is available for their review at DEQ offices.

The NEDC also requested that the rules provide a means for an aggrieved member of the public to appeal a certification which was improperly given. In the past, the Commission has limited rule making to address only those appeal procedures for applicants who may be aggrieved by Department actions. Nothing is being proposed in these rules which would vary from that practice. The Courts are the vehicle available for an aggrieved third party to appeal a Department or Commission Action.

On January 4, 1985, the Department received a request from the State Department of Energy (Attachment F) requesting that language be added to the rules to require that a completed application for certification of an energy facility larger than 25 megawatts must contain a certificate or permit from the Energy Facility Siting Council. Further evaluation of this proposal is needed before a recommendation can be made. If it appears appropriate to adopt this type of provision, the Department will initiate rule modification including appropriate public participation procedures.

Alternatives

1. Adopt the proposed rules as modified in response to the hearing testimony (Attachment A).
2. Adopt the rules as initially proposed and taken to hearing.
3. Do not adopt any rules.

The Department believes that continued reliance on informal procedures is not desirable. Adoption of the proposed rules as modified in response to public testimony is the preferred alternative.


Summation

1. Section 401 of the Clean Water Act requires states to review proposals for federal licenses or permits and to certify that the proposal will meet federal and state requirements for the protection of public waters.
2. The Department has been operating since 1973 without procedural rules. The staff have relied upon established procedures and statutory requirements.
3. Procedural rules are needed to clarify the Department's practices for handling requests for certification.

4. Notice of a public hearing was given in the Secretary of State's Bulletin November 1, 1984, and mailed to the Department's rule making mailing list on October 23, 1984.
5. A hearing was held at 1 p.m. on November 28, 1984. The record was kept open until 5 p.m.
6. All public testimony has been reviewed and evaluated. The proposed rules (Attachment A) have been revised in response to the testimony received.

Director's Recommendation

Based on the summation, the Director recommends that the Commission adopt the rules, OAR 340-48-005 to 340-48-040, as presented in Attachment A.



Fred Hansen

- Attachments:
- A. Proposed Rules with Modifications to Reflect Public Comments
 - B. Hearings Officer's Summary of Public Testimony
 - C. Public Hearing Notice
 - D. Statement of Need for Rulemaking
 - E. Commission Agenda Item D, September 4, 1984, EQC Meeting
 - F. Letter From Department of Energy

Glen D. Carter
229-5358
WL3921
1/10/85

Proposed Rules with Modifications
to Reflect Public Comment

DEPARTMENT OF ENVIRONMENTAL QUALITY

Water Quality Program

OREGON ADMINISTRATIVE RULES
Chapter 340, Division 48

DIVISION 48

CERTIFICATION OF COMPLIANCE WITH WATER QUALITY REQUIREMENTS AND STANDARDS.

Purpose

340-48-005 The purpose of these rules is to describe the procedures to be used by the Department of Environmental Quality for receiving and processing applications for certification of compliance with water quality requirements and standards for projects which are subject to federal agency permits or licenses and which may result in any discharge into navigable waters or impact water quality.

Definitions

340-48-010 As used in these rules unless otherwise required by context:

(1) "Certification" means a written declaration by the Department of Environmental Quality, signed by the Director, that a project or activity subject to federal permit or license requirements will not violate applicable water quality requirements or standards.

(2) "Clean Water Act" means the Federal Water Pollution Control Act of 1972, PL 92-500, as amended.

(3) "Coast Guard" means U.S. Coast Guard.

(4) "Commission" means Oregon Environmental Quality Commission.

(5) "Corps" means U.S. Army Corps of Engineers.

(6) "Department" or "DEQ" means Oregon Department of Environmental Quality.

(7) "Director" means Director of the Department of Environmental Quality or the Director's authorized representative.

(8) "Local Government" means county and city government.

Certification Required

340-48-015 Any applicant for a federal license or permit to conduct any activity, including but not limited to the construction or operation of facilities which may result in any discharge to waters of the State, must provide the licensing or permitting agency a certification from the Department that any such discharge will comply with Sections 301, 302, 303, 306, and 307 of the Clean Water Act which generally prescribe effluent limitations, water quality related effluent limitations, water quality standards and implementation plans, national standards of performance for new sources, and toxic and pretreatment effluent standards.

Application for Certification

340-48-020 (1) Except as provided in section (6) below, completed applications for project certification shall be filed directly with the DEQ.

(2) A completed application filed with DEQ shall contain, at minimum, the following information:

- (a) Legal name and address of the project owner.
- (b) Legal name and address of owner's designated official representative, if any.
- (c) Legal description of the project location.
- (d) A complete description of the project proposal, using written discussion, maps, diagrams, and other necessary materials.
- (e) Name of involved waterway, lake, or other water body.
- (f) Copies of the environmental background information required by the federal permitting or licensing agency.
- (g) Copy of any public notice and supporting information, issued by the federal permitting or licensing agency for the project.
- (h) A statement from the appropriate local planning agency that the project is compatible with the acknowledged local comprehensive plan or that the project is consistent with statewide planning goals if the local plan is not acknowledged. If a county is the applicant for a project for which it has also made the land use compatibility determination, the State Land Use Conservation and Development Department may be asked to review and comment on the County's compatibility determination.

(3) The DEQ reserves the right to request any additional information necessary to complete an application or to assist the DEQ to adequately evaluate the project impacts on water quality. Failure to complete an application or provide any requested additional information within the time specified in the request shall be grounds for denial of certification.

(4) [Public notice of all applications filed with DEQ shall be by publication in the Secretary of State's Bulletin, mailing of notification to those persons who request to be on a DEQ mailing list for receiving such notices, and mailing of notification to local governments in the project area. Notices shall specify the duration of the comment period which will normally be 30 days.] In order to inform potentially interested persons of the application, a public notice announcement shall be prepared and circulated in a manner approved by the Director. The notice shall tell of public participation

opportunities, shall encourage comments by interested individuals or agencies, and shall tell of any related documents available for public inspection and copying. The Director shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit written views and comments. All comments received during the 30-day period shall be considered in formulating the Department's position. The Director shall add the name of any person or group upon request to a mailing list to receive copies of public notice.

(5) The Director shall provide an opportunity for the applicant, any affected state, or any interested agency, person, or group of persons to request or petition for a public hearing with respect to certification applications. If the Director determines that useful information may be produced thereby, or if there is significant public interest in holding a hearing, a public hearing will be held prior to the Director's final determination. Instances of doubt shall be resolved in favor of holding the hearing. There shall be public notice of such a hearing.

(6) For projects or activities where the Division of State Lands is responsible for compiling a coordinated state response (normally applications requiring permits from the Corps or Coast Guard), the following procedure for application and certification shall apply:

(a) Application to the Federal agency for a permit constitutes application for certification.

(b) Applications are forwarded by the Federal Agency to the Division of State Lands for distribution to affected agencies.

(c) Notice is given by the Federal Agency and Division of State Lands through their procedures. Notice of request for DEQ certification is circulated with the Federal Agency Notice.

(d) All comments including DEQ Water Quality Certification are forwarded to the Division of State Lands for evaluation and coordination of response. The Division of State Lands is responsible for [determination of] assuring compatibility with the local comprehensive plan or consistency with statewide planning goals.

(7) The Department's evaluation of an application for project certification will include but not be limited to the following:

(a) Existing and potential beneficial uses of surface or groundwater which could be affected by the proposed facility.

(b) Potential impact from the generation and disposal of waste chemicals or sludges at a proposed facility.

(c) Potential modification of surface water quality or quantity.

(d) Potential modification of groundwater quality.

(e) Potential impacts from the construction of intake or outfall structures.

(f) Potential impacts from waste water discharges.

(g) Potential impacts from construction activities.

(h) The project's compliance with plans applicable to Section 208 of the Federal Clean Water Act.

Issuance of a Certificate

340-48-025 (1) Within ninety (90) days of receiving a complete application for project certification, the DEQ shall serve written notice upon the applicant that the certification is granted or denied or that a further specified time period is required to process the application. Written notice shall be served in accordance with the provisions of OAR 340-11-097 except that granting of certification may be by regular mail. Any extension of time shall not exceed 1 year from the date of filing a completed application. If the Department fails to take timely action on an application for certification, the certification requirements of Section 401 of the Clean Water Act are waived.

(2) DEQ's Certification for a project shall contain the following information:

- (a) Name of Applicant;
- (b) Project's name and federal identification number (if any);
- (c) Type of project activity;
- (d) Name of water body;
- (e) General location;
- (f) Statement that the project complies with applicable requirements of the Federal Clean Water Act;

(g) Special conditions if necessary to assure compliance with Sections 301, 302, 303, 306, and 307 of the Clean Water Act and state water quality requirements.

(h) Findings that the project is compatible with the local comprehensive plan and/or the statewide planning goals, except for those projects for which the Division of State Lands coordinates the response.

(3) If the applicant is dissatisfied with the conditions of any granted certification, the applicant may request a hearing before the Commission. Such requests for a hearing shall be made in writing to the Director within 20 days of the date of mailing of the certification. Any hearing shall be conducted pursuant to the rules of the Commission for contested cases.

(4) Certifications granted pursuant to these rules are valid for the applicant only and are not transferable.

Certification Delivery

340-48-030 For projects where application for certification is filed directly with DEQ by the applicant, the DEQ certification will be returned directly to the applicant. For those applications that are coordinated by the Division of State Lands, DEQ certification will be delivered to the Division of State Lands for distribution to the applicant and the federal permitting agencies as part of the State of Oregon coordinated response.

Denial of Certification

340-48-035 If the Department proposes to deny certification for a project, a written notice setting forth the reasons for denial shall be served upon the applicant following procedures in OAR 340-11-097. The written notice shall advise the applicant of appeal rights and procedures. A copy shall also be

provided to the federal permitting agency. The denial shall become effective 20 days from the date of mailing such notice unless within that time the applicant requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the rules of the Commission for contested cases.

Revocation or Suspension of Certification

340-48-040 (1) Certification granted pursuant to these rules may be suspended or revoked if the Director determines that:

- (a) The federal permit or license for the project is revoked.
- (b) The federal permit or license allows modification of the project in a manner inconsistent with the certification.
- (c) The application contained false information or otherwise misrepresented the project.
- (d) Conditions regarding the project are or have changed since the application was filed.
- (e) Special conditions or limitations of the certification are being violated.

(2) Written notice of intent to suspend or revoke shall be served upon the applicant following procedures in OAR 340-11-097. The suspension or revocation shall become effective 20 days from the date of mailing such notice unless within that time the applicant requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be filed with the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the rules of the Commission for contested cases.

GDC:t
WT245.A
Revised 1/3/85



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

November 29, 1984

MEMORANDUM

To: Environmental Quality Commission

From: *[Signature]* Kent Ashbaker, Hearings Officer

Subject: Public Testimony Regarding Proposed Rules which Establish Department Procedures for Certification of Federal Licenses or Permits Pursuant to Section 401 of the Federal Clean Water Act

A public hearing was held in Room 1400 of the Yeon Building at 1 p.m., November 28, 1984. Other than members of the staff, there were five persons who attended the hearing, three of whom gave oral testimony. Previous to the hearing, the Department received written testimony from five public entities. A summary of attendees and other testimony received is as follows:

<u>Person or Organization</u>	<u>Written Testimony</u>	<u>Oral Testimony</u>	<u>Attended Hearing</u>
Oregon State Highway Division	Yes	No	No
Deschutes County	Yes	No	No
Washington County	Yes	No	No
Coos County	Yes	No	No
Baker County	Yes	No	No
Oregon Shores Conservation Coalition	Yes	Yes	Yes
Northwest Environmental Defense Center	Yes	Yes	Yes
Portland General Electric	No	No	Yes
Oregon Environmental Council	No	Yes	Yes
Jack Churchill	No	Yes	Yes
Land Conservation and Development	No	No	Yes

Summary of Individual Testimony

The State Highway Division stated that as long as the rules proposed no change from existing procedures, they had no need to comment.

Deschutes County was concerned that the present language in the draft rules would appear to allow the Division of State Lands to make the land use compatibility determination, rather than the local land use agency. They propose clarifying language to assure that it was the local land use agency

November 29, 1984

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which determined consistency with acknowledged comprehensive plans or statewide planning goals.

Washington County sent a letter of support for the draft rules.

Coos County also questioned the language on land use compatibility. They requested that the language in the rules be changed to clarify the issue.

Baker County also commented on the land use compatibility question. However, their primary concern was the apparent conflict of interest when the county is the applicant and also the agency which provides the land use compatibility determination. They suggested that an alternative mechanism be provided to remove that potential conflict of interest.

Mr. J. D. Smith, representing Oregon Shores Conservation Coalition, suggested that the rules were completely inadequate in their present form. He stated that the rules should include all the specific factors the Department would evaluate before certifying that the project would comply with applicable portions of the Federal Clean Water Act and State Water Quality Standards. He also stated that the rules should contain the specific criteria used in evaluating each of the established factors.

Mr. Smith also suggested that the public should be involved in the evaluation procedure. At a minimum, the public participation procedures should be equivalent to those of the NPDES permitting process found in OAR 340-45-035.

Mr. Smith stated that the Department is currently in violation of Section 303 of the Federal Clean Water Act in that the total maximum daily loading of pollutants has not been established for each of the state's river basins. He suggested that that determination should precede or at least be concurrent with these rules.

Mr. J. D. Smith also presented oral testimony for the Northwest Environmental Defense Center (NEDC). He said that NEDC supported the comments from the Oregon Shores Conservation Coalition. In addition, they requested that the Department send them extensive information regarding DEQ's past certification procedures including a copy of the technical evaluation of all certifications for the past 5 years and the public notice given. They also requested a list of all pending 401 certification requests.

Jack Churchill testified on behalf of himself. He requested that the rules specify that all facilities requesting certification be required to be in compliance with 208 plans. He also stated that the rules should contain what information DEQ would require of the applicant upon which DEQ would base its judgment as to the impact the facility would have on water quality standards and all beneficial uses. Benefits from any proposal must be compared to all potential impacts on water quality, not just those impacts related with point source discharges.

November 29, 1984

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John Charles, representing Oregon Environmental Council, expressed the same concerns as expressed by Mr. Smith and Mr. Churchill. Rules should contain criteria for evaluating compliance with 301, 302, 303, 306, and 307, of the Clean Water Act. He also stated that the Department should be developing river basin maximum daily loadings prior to or concurrent with these rules. Mr. Charles also requested that the rules provide a means for an aggrieved member of the public to appeal a certification which was improperly given.

As there were no other persons desiring to testify, the hearing was closed at 2 p.m. It was announced that the hearing record would remain open for written comments until 5 p.m. No further written testimony was received.

Charles K. Ashbaker:l
WL3902

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PUBLIC HEARING ON RULES FOR
WATER QUALITY STANDARDS COMPLIANCE CERTIFICATION

Date Prepared: 10-8-84
Notice Issued: 10-23-84
Comments Due: 11-28-84
5 p.m.

WHO IS AFFECTED: Any person or party applying for a federal agency permit or license to construct and/or operate facilities which may affect waters of the state and persons who use the waters of the state.

WHAT IS PROPOSED: The DEQ is proposing procedural rules for processing applications and issuing water quality standards compliance certifications for water related projects subject to federal agency permit or license. Projects include waterway fills, instream construction, hydroelectric projects, etc.

WHAT ARE THE HIGHLIGHTS: Some federal agencies issue permits for facilities and activities in waters of the state that result in discharges of materials that may pollute the water. Consequently, Section 401 of the Federal Clean Water Act of 1977, requires that the applicant for such a federal permit must first obtain certification from the DEQ that there is reasonable assurance the proposed discharge or activity will not violate applicable water quality requirements and standards. The DEQ must also provide procedures for public notice and public hearing of its actions.

SPECIAL CONDITIONS: The proposed rules require a land use compatibility determination for each project prior to certification.

HOW TO COMMENT: A public hearing will be held to receive oral comments on:

Date: November 28, 1984
Time: 1 p.m.
Place: Room 1400, Yeon Building
522 S.W. 5th, Portland, Oregon

Written comments should be sent to the Department of Environmental Quality, Water Quality Division, P.O. Box 1760, Portland, OR, 97207.

Any questions or requests for additional information should be directed to Glen Carter of the Water Quality Division, 229-5358 or toll free 1-800-452-4011.

WHAT IS THE NEXT STEP: Once the public testimony has been received and evaluated, the rules will be revised if necessary, and then presented to the Environmental Quality Commission for adoption.



P.O. Box 1760
Portland, OR 97207

8/10/82

WT246 **FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011 and ask for the Department of Environmental Quality.

1-800-452-4011

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority

ORS 468.020 authorizes the Commission to adopt rules necessary and proper in performing the functions vested by law in the Commission.

ORS 468.730 authorizes the Commission to adopt the necessary rules to implement those provisions of the Federal Water Pollution control Act which are within the jurisdiction of the state.

(2) Need for the Rule

Under the Federal Water Pollution Control Act (Clean Water Act) the Department of Environmental Quality has the responsibility to review applications for a Federal license or permit to conduct any activity which may result in any discharge into navigable waters. After review, the Department must certify whether the discharge or activity will comply with effluent limitations, water quality standards, national standards of performance for new sources, and toxic and pretreatment standards. Rules are needed to establish procedures for applying for certification, providing for public input in the certification process, addressing land use issues and concerns, and describing certification issuance, denial and appeal procedures.

(3) Principal Documents Relied Upon in This Rulemaking

- a. ORS 468.020
- b. ORS 468.730
- c. Federal Water Pollution Control Act (Clean Water Act)
Title IV, Section 401.

LAND USE CONSISTENCY

The proposed rules appear to affect land use and to be consistent with the Statewide Planning goals.

Goal 6 (Air, Water and Land Resources Quality): This proposal is deemed to improve and maintain water quality and is consistent with the goal because the DEQ certification assures compliance with state and federal water quality standards and requirements.

These rules are also deemed compatible with the Statewide Land Use Planning goals since they require an application for certification to contain a statement of land use compatibility from the appropriate planning agency.

The rule does not appear to conflict with other goals.

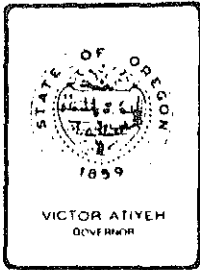
Public comment on any land use issue involved is welcome and may be submitted in the same manner as indicated for testimony in this notice. It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflicts brought to our attention by local, state or federal authorities.

FISCAL AND ECONOMIC IMPACT STATEMENT

The proposed rules should have minimal impact on small businesses. The requirement for certification has been in effect for more than 10 years, and certifications have been routinely processed throughout this period. The rules codify the procedure that has evolved over time. This should make it easier for applicants to understand and meet requirements for certification. The rules clarify the requirement for land use consistency for projects to be certified. The rules benefit project applicants, including small businesses, by reducing the normal response time from 1 year allowed by federal law to 90 days.

GDC:1
WL3639
September 4, 1984



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. D, September 14, 1984, EQC Meeting

Request for Authorization to Conduct a Public Hearing on Proposed Rules for Granting Water Quality Standards Compliance Certifications Pursuant to Section 401 of the Federal Clean Water Act

Background

Section 401 of the Federal Clean Water Act requires any applicant for a Federal license or permit to provide the licensing or permitting agency with a certification from that state that the project will comply with effluent limitations, water quality related effluent limitations, water quality standards and implementation plans, national standards of performance for new sources, and toxic and pretreatment effluent standards adopted pursuant to the Clean Water Act.

The Department has been implementing this section of the federal law without having adopted procedural rules regarding certification. Recently, numerous applications for certification of projects subject to licensing by the Federal Energy Regulatory Commission have demonstrated the need to clarify procedures for receiving applications and processing certifications pursuant to Section 401 of the Clean Water Act. In particular, the Department's Agreement for Coordination with the Land Conservation and Development Commission (LCDC) identifies Section 401 Certification as an activity affecting land use and thus requires a determination of consistency prior to issuance of certification. Procedures need to be clarified regarding this determination.

Until recently, nearly all requests for certification have been for projects in navigable waters or adjacent wetlands requiring permits from the U.S. Army Corps of Engineers or from the U.S. Coast Guard for structures that may impact navigation. For these applications, the State of Oregon has a well established agency coordination program where the Division of State Lands receives applications from the applicant (by way of the Federal Agency), distributes them to state natural resource agencies for review and comment, and compiles comments into a coordinated state response to the applicant. Under this coordinated program the federal agency issues public notice of the project on behalf of all of the agencies. DEQ's notice of request for certification is circulated with the package by the Federal Agency. DEQ's

certification is forwarded to the Division of State Lands. The coordinated response is then released when agency comments are compiled and the project is determined to be compatible with land use requirements. This process has been quite efficient and effective.

Alternatives and Evaluation

There are two basic alternatives available at this time. The easiest would be to continue present procedures with some administrative clarification regarding land use compatibility statements, but without adopting rules.

While this may be satisfactory in most cases, there will likely be times when such informal procedures will lead to problems--particularly if a certification is challenged. This alternative is not recommended.

The recommended alternative is to adopt procedural rules which clearly define the procedure for receiving applications, giving public notice as required by Section 401 of the Clean Water Act, and issuance or denial of certification.

Draft rules have been developed which define the minimum information needed to constitute a complete application. In addition to the applicant's normal project descriptive information, the rules require submittal of a statement from the appropriate local planning jurisdiction that the project is either compatible with the acknowledged local comprehensive plan, or is consistent with statewide planning goals if the local plan is not acknowledged.

The rules also provide that failure to complete an application or supply requested additional information will be grounds for denial of certification.

DEQ's Coordination Agreement with LCDC anticipated that DEQ may in some instances need to proceed to review an application without a land use determination from the local agency. In such case, DEQ's action would be conditional upon the applicant obtaining such a statement prior to initiating work. This process was necessary in the beginning when most jurisdictions were fully involved in plan preparation and unable to promptly respond to requests for compatibility determination. Since most jurisdictions now have acknowledged plans, and the local planning agencies are better able to review and respond to proposals, it is appropriate to make the land use statement a necessary part of a completed application. DEQ does not propose to grant certification without the local land use sign off.

The draft rules further describe public notice procedures and procedures for issuance, denial, revocation and suspension of certification. The federal law allows up to one year to process certifications; if action is not complete within that time, the certification requirement is waived. The Department proposes to act within 90 days. This allows for receiving applications, forwarding notice to the Secretary of State Bulletin 10 days in advance of the nearest publication date (1st or 15th of each month), 30 days notice period for public comment and approximately 30 to 45 days for evaluation of comments and final action by the Department. A process is also provided for extending the period for action beyond 90 days where necessary to allow for hearing, submittal of additional information or other cause.

Draft rules have been written to formalize and continue the present streamlined procedure for coordinated agency response through the Division of State Lands for U.S. Corps of Engineers and U.S. Coast Guard permit applications as an exception to the normal process.

The following is a brief outline of the proposed rules:

- 48-005 Purpose
- 48-010 Definitions
- 48-015 Certification Required--describes situations where certification will be required.
- 48-020 Application for Certification--describes contents of a complete application, including requirement for land use compatibility statement, and public notice requirements. Describes procedures for requesting a hearing on any application. Describes alternative procedure for applications processed through Division of State Lands Coordination program.
- 48-025 Issuance of Certificate--describes time limits for processing completed applications, the form of certification, and procedures for appealing the conditions of granted certifications.
- 48-030 Certification Delivery--describes procedure for forwarding certificates to applicant or Federal permitting agency.
- 48-035 Denial of Certification--describes procedure for denial of certification, notification of applicant, and appeal.
- 48-040 Revocation or Suspension of Certification--describes conditions for revocation or suspension of certification and procedures for notification and appeal.

Summation

1. Section 401 of the Federal Clean Water Act requires applicants for Federal permits and licenses to obtain certification from the State that the proposed activity will comply with water quality requirements and standards.
2. The Department has been processing applications for certification since the Clean Water Act was passed, relying on the language of the Federal Statute to guide the process rather than specific rules adopted by the Commission.
3. Recent changes in the number and nature of applications as well as the need to clarify land use compatibility requirements have demonstrated the need for clarification of application processing procedures by adoption of specific procedural rules.

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September 14, 1984
Page 4

Director's Recommendation

Based on the Summation, it is recommended that the Commission authorize the Department to conduct a public hearing on proposed rules for certification of compliance with Water Quality Requirements and Standards pursuant to Section 401 of the Federal Clean Water Act as contained in Attachment 1.

Fred Hansen

Attachments: 3
1. Draft Rules
2. Public Notice
3. Statement of Need

Glen D. Carter
229-5358
WL3640
September 4, 1984



Department of Energy

LABOR & INDUSTRIES BUILDING, ROOM 102, SALEM, OREGON 97310 PHONE 378-4040
TOLL FREE 1-800-221-8035

January 3, 1985

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JAN 04 1985

Fred Hansen, Director
Department of Environmental Quality
P.O. Box 1760
Portland, OR 97207

OFFICE OF THE DIRECTOR

RE: Draft Rules, Chapter 340, Division 48

Dear Fred:

This letter is to urge a revision in your proposed rules. Section 340-48-020(2)(h) of that draft provides that a complete application for certification must contain "a statement from the appropriate local planning agency that the project is compatible with the acknowledged local comprehensive plan or that the project is consistent with state-wide planning goals if the local plan is not acknowledged." We support that approach as a way of ensuring local input into the certification process and ultimately into the federal permitting process. This is of particular concern with respect to hydroelectric projects under the jurisdiction of the Federal Energy Regulatory Commission (FERC).

We believe that this approach would also be useful as a means of ensuring other state agency input into the process as well. We would urge the Commission to condition its certification upon receipt of appropriate state agency endorsements, especially for Energy Facility Siting Council approval of hydroelectric projects larger than 25 megawatts. For this reason, we suggest the following additional language for OAR 340-48-020(2).

"(i) a complete application for certification must contain a certificate or permit from the Energy Facility Siting Council for projects larger than 25 megawatts."

This language will assure that existing state statutory requirements are effectively implemented.

For example, ORS 469.310 provides the following:

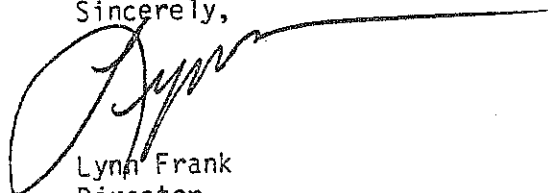
In the interests of the public health and the welfare of the people of this state, it is the declared public policy of this state that the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety and in compliance with the energy policy and air, water, solid waste, land use and other environmental protection policies of this state. It is, therefore, the purpose of ORS 469.300 to 469.570, 469.590 to 469.621, 469.930 and 469.992 to exercise the jurisdiction of the State of Oregon to the maximum extent permitted by the United States Constitution and to establish in cooperation with the Federal Government a comprehensive system for the siting, monitoring and regulating of the location, construction and operation of all energy facilities in this state. [Formerly 453.315]

Further, ORS 469.520 requires that rules and actions of other state agencies be consistent with this policy. Finally, ORS 469.400(5) requires that approval of permits for energy facilities by state and local agencies must be consistent with site certificate decisions of the Energy Facility Siting Council.

This is an issue of great importance to the state and its citizens. In order for the state to play a meaningful role in the federal decision making process on hydroelectric facilities, the state must have an effective instrument for coordinated review of these facilities. We believe that section 401 certification is such an instrument. It could be strengthened further by explicitly including the Energy Facility Siting Council approval as a prerequisite to issuance of the section 401 certification.

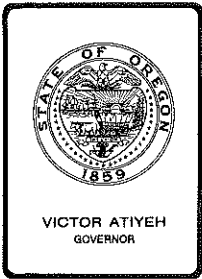
Thank you for your consideration of these comments.

Sincerely,



Lynn Frank
Director

LF:kk
83851



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. M, July 19, 1985, EQC Meeting

Proposed Adoption of Amendments to Hazardous Waste Management Rules, OAR Chapter 340, Divisions 100-108

Background

Due to a high potential for human health and environmental damage, hazardous waste requires special management controls. In Oregon, this need has been recognized since 1971 when the Legislature initially adopted hazardous waste legislation.

Currently, the U.S. Environmental Protection Agency, under Subtitle "C" of the Resource Conservation and Recovery Act of 1976 (RCRA), has developed a national program for the management of hazardous waste. The act places hazardous waste management in the federal province but includes provisions for EPA to authorize a state program to operate in lieu of a federally operated program.

On April 20, 1984, the Commission adopted a revised set of hazardous waste management rules, codified in OAR Chapter 340, Divisions 100 to 110. The rules established a comprehensive State hazardous waste management program designed to protect the environment of Oregon and the health of its citizens from the adverse effects of improper hazardous waste management practices. Additionally, adoption of the rules enabled DEQ to demonstrate that the State program was equivalent to the federal program, and thus request RCRA Final Authorization from EPA. Achieving Final Authorization of the State's program is in accordance with the wishes of the regulated community and public, as expressed during public hearings, the 1983 Legislature, as expressed in House Bill 2238, and the 1985 Legislature, as expressed in House Bill 2145.

The Department, on June 1, 1984, submitted an application for Final Authorization to EPA. In response to some of EPA's application review comments, modifications to the State's rules were adopted by the Commission on August 22 and November 2, 1984. Additionally, EPA had strong concerns over the level of Department resources available to operate the State's program, and was reluctant to grant Final Authorization at that time.

The Department and EPA subsequently reached accord on additional actions the State would undertake to receive Final Authorization. DEQ plans to submit a revised application to EPA by September 1, 1985, and hopes to receive Final Authorization by January 31, 1986.

On January 4 and 14, and April 11, 23 and 30, 1985, EPA promulgated regulations modifying the federal program. EPA regulations require, as a condition of authorization, that states modify their programs to incorporate federal program revisions, and thus maintain equivalency. States are allowed twelve months following EPA promulgation of regulations to make program revisions. Federal changes which relax existing requirements are optional for state adoption.

Pursuant to the requirements for State program revisions discussed above, the Department will be required to incorporate the January and April 1985 EPA regulations into the State program by no later than January and April 1986, respectively, in order to maintain Final Authorization once granted. Since this coincides with the expected date for receiving Final Authorization, the Department is proposing to adopt these program revisions now and incorporate them into the State's revised application for Final Authorization. The Department also proposes to adopt more flexible federal regulations regarding "satellite accumulation" promulgated December 20, 1984, and make rule amendments consisting of technical corrections to, and clarifications of, existing rules.

In addition to these substantive rule modifications, the Department proposes to revise the format of existing State rules. The majority of rules in current Divisions 100 to 106 recodify federal requirements in 40 CFR Parts 260-264, 270 and 124. The Department's experience since April 1984 in implementing these rules suggests that adoption of federal requirements through incorporation-by-reference would reduce confusion in the regulated community and allow for easier implementation by DEQ. Additionally, the Secretary of State's office has expressed concern over the length of existing Divisions 100-110, particularly 104. Use of this approach would also allow future State program revisions resulting from new or modified federal regulations to be made with less difficulty and administrative burden on the Department.

The following discussion briefly describes the proposed rule amendments included in Attachment IV. It should be noted that, due to use of the incorporation-by-reference format, the contents of the December 20, 1984, January 4 and 14, and April 11, 23 and 30, 1985 federal rule changes do not appear codified in Divisions 100-107. However, copies of these regulations are provided in Attachment VI for informational purposes.

Federal regulations recently adopted or amended by EPA and proposed for adoption by the Commission address five areas:

1. Redefinition of residues relative to recycling (January 4 and April 11, 1985).
2. Listing certain dioxin-containing wastes as hazardous waste (January 14, 1985).

3. Allowing short-term accumulation of hazardous wastes at the point of generation ("satellite" accumulation) (December 20, 1984).
4. Adoption of a simplified test method to determine if "free liquids" are present in hazardous waste (April 30, 1985).
5. Changes to interim status standards applicable to existing management facilities, to conform to similar requirements for permitted facilities (April 23, 1985).

Discussion

1. On January 4, 1985, EPA promulgated a revised definition of solid wastes and established certain management standards for hazardous wastes which are recycled. Use of the term "solid waste" by EPA is akin to use of the term "residue" by Oregon. In each case, hazardous waste is defined as a subset.

The existing State rules distinguish between characteristic and listed hazardous wastes when recycled. Wastes that are sludges or listed hazardous wastes are fully regulated up to the point of recycling (i.e., generation, transportation and storage). However, wastes that are hazardous solely because they fail a characteristic (i.e., ignitable, corrosive, reactive, or EP toxic) are subject only to a reduced set of requirements if they are beneficially used, reused or reclaimed. The proposed rule amendments would subject characteristic spent materials to the same degree of control, when recycled, as listed spent materials.

The proposed rule amendments use a matrix approach to define which secondary materials would be residues and hazardous wastes when recycled. The matrix, shown in Table 1, considers both the nature of the material involved and the manner in which it is being recycled. Secondary materials which could be wastes include the following:

- a. Spent Material - material which has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.
- b. Sludge - any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility.
- c. Byproduct - a material that is not one of the primary products of a production process and is not solely or separately produced by the production process.
- d. Commercial Chemical Product - a chemical substance manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade, any technical grade, and all formulations of the chemical in which it is the sole active ingredient.

TABLE 1

Types of Secondary Materials Defined as Residues and
Hazardous Wastes When Recycled and Types of Recycling
Activities Constituting Waste Management

SECONDARY MATERIALS	EXAMPLES	RECLAMATION ¹	SPECULATIVE ACCUMULATION ²	USE CONSTITUTING DISPOSAL ³	ENERGY RECOVERY AND FUEL ⁴
1. <u>Spent Materials</u>					
a. Characteristic	paint thinner, sulfuric acid	Yes	Yes	Yes	Yes ⁵
b. Listed	spent methylene chloride used in degreasing (F001)	Yes	Yes	Yes	Yes
2. <u>Sludges</u>					
a. Characteristic	heavy metal sludge from wastewater treatment	No	Yes	Yes	Yes
b. Listed	emission control sludge from primary steelmaking (K061)	Yes	Yes	Yes	Yes
3. <u>Byproducts</u>					
a. Characteristic	slag exhibiting EP Toxicity	No	Yes	Yes	Yes ⁵
b. Listed	tank bottoms from petroleum refining (K052)	Yes	Yes	Yes	Yes
4. <u>Listed Commercial Chemical Products</u>					
	formaldehyde (U122)	No	No	Yes	Yes
5. <u>Scrap Metal</u>					
	scrap turnings exhibiting EP Toxicity	Yes ⁶	Yes ⁶	Yes ⁶	Yes ⁶

Yes = defined as a residue
No = Not defined as a residue

- (1) Processing to recover a useable product, or regeneration
(2) Accumulation before being recycled, unless 75% of accumulated material is recycled during a one-year period
(3) Applied to the land in a manner constituting disposal, or contained in a product that is applied to the land
(4) Burned to recover energy or used to produce a fuel
(5) Only listed wastes and sludges are regulated at this time, and only generation, transportation
and storage activities are regulated for now
(6) Although defined as a residue, not regulated at this time

- e. Scrap Metal - bits and pieces of metal parts or metal pieces that may be combined together with bolts or soldering, which when worn or superfluous can be recycled.

As indicated in Table 1, certain secondary materials would be defined as residues and hazardous wastes if they are accumulated speculatively, reclaimed, burned or used to produce a fuel, or used in a manner constituting disposal.

Under the proposed rule amendments, certain recycling activities would not be considered waste management and therefore materials recycled in these ways would not be hazardous wastes. These activities include use/reuse as ingredients to make new products, use/reuse as substitutes for commercial products, closed-loop recycling, and reclamation of non-listed sludges and byproducts.

In the areas of use and reuse of secondary materials, adoption of the proposed rule amendments would reduce existing State requirements. Under existing 340-101-006, a generator's hazardous waste which is beneficially used or reused is subject to a limited set of requirements. These requirements include the generator obtaining an identification number, using a manifest or shipping papers for shipments off-site greater than 2000 pounds per month, reporting shipments to the Department, and obtaining the Department's authorization if greater than 200 pounds per month is shipped off-site. Existing rule 340-102-052 specifies the terms of and requirements for the Department's authorization, which includes authorization to inspect the user.

The proposed rule amendments would delete these requirements since secondary materials would not be defined as residues (and hence not hazardous wastes) if they are used or reused either as ingredients in an industrial process to make a product, or as effective substitutes for commercial products. In both of these cases, the Department believes the secondary materials are functioning as raw materials and thus are not wastes. It is important to note, however, that if any reclamation is performed prior to use or reuse, the materials would be considered residues and possibly hazardous wastes.

Hazardous wastes being recycled and not exempt from regulation would be subject to either a reduced set of standards (established in 40 CFR Part 266) or the full requirements of existing rules. Spent lead-acid batteries being reclaimed would only be regulated when stored by battery reclaimers. Wastes from which precious metals are recovered would be subject only to the notification, manifest and recordkeeping provisions of existing rules. Some materials which would be exempt temporarily from regulation include scrap metal, used oil exhibiting a characteristic, waste-derived fuels and wastes burned as fuel. The temporary exclusion from regulation is due to ongoing investigations by EPA to more fully characterize the composition and handling practices of these materials. EPA may propose at a future date to establish substantive and/or administrative controls if appropriate.

The effect of these proposed rule amendments would be to bring an unknown but estimated small number of persons under regulation, primarily due to the rule provisions dealing with reclamation of spent materials exhibiting a characteristic. For example, spent paint thinner, which may exhibit the characteristic of ignitability, and spent sulfuric acid, which may exhibit the corrosivity characteristic, when reclaimed would become regulated as hazardous wastes under the proposed rules.

Generators of these wastes would have to comply with the generator rules in Division 102, e.g., identification number, proper packaging and labeling, recordkeeping, use of the manifest, etc. Also, reclamation facilities which store these characteristic hazardous wastes prior to reclamation would be required to obtain a hazardous waste storage permit. The Department is presently aware of five reclamation facilities which potentially would become subject to the permit requirements.

2. The proposed rules would classify as listed hazardous wastes certain wastes containing particular chlorinated dioxins, chlorinated dibenzofurans, and chlorinated phenols, and specify management standards for these wastes. These wastes would be designated as acute hazardous waste and therefore subject to full regulation in quantities greater than 2.2 pounds. The Department believes that these wastes, which contain potent toxicants, should be appropriately managed as hazardous wastes and in accordance with special standards. To do this, the Commission is asked to make the finding that these residues, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may (ORS 459.410(6)):
 - a. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - b. Pose a significant present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

These wastes contain significant concentrations of highly toxic chemicals, including tetra-, penta- and hexachlorodibenzo-p-dioxin (CDDs) and -dibenzofurans (CDFs), and high concentrations of other toxic chemicals, including pentachlorophenol (PCP). EPA has determined that two of the hexachlorodibenzo-p-dioxins (HxCDDs) are carcinogens. There are also reports in the literature which indicate that workers in occupations associated with PCP exposure are at an increased risk of certain types of cancer.

In addition to their toxicity, these contaminants have been found to be mobile and persistent in the environment. Wastes containing these contaminants have been associated with many damage incidents, including those at Love Canal, New York, and Times Beach, Missouri. For all of these reasons, the Department believes these wastes could pose (and have posed) a significant hazard to human health and the environment when improperly managed.

3. Another area of rule amendments is "satellite accumulation." Adoption of the amendment to 40 CFR 262.34 would allow hazardous waste generators to accumulate up to 55 gallons of hazardous waste, or one quart of acutely hazardous waste, in satellite areas at a generator's facility. Waste accumulating in these areas would have to be placed in adequate containers, be compatible with their containers and the containers marked "Hazardous Wastes." Requirements currently in effect but which would be deleted under the proposed rule modification include preparation of contingency plans, procedures for preparedness, prevention, and emergencies, and personnel training plans. (However, these requirements would be effective once the waste accumulation exceeds 55 gallons and 72 hours.) The Department had previously proposed adoption of the "satellite accumulation" rule, but was advised by EPA that to do so would make the State program unequivalent to the federal program, since the rule had not been finalized by EPA at that time.
4. The Department also proposes to adopt a simplified method for determining if free liquids are present in a hazardous waste. The "Paint Filter Liquids Test" was determined to be relatively easy and inexpensive to conduct, in tests by EPA comparing it to other methods. DEQ concurs with the findings and notes the favorable comments on this method made by the regulated community.
5. The last area of rule amendment in response to federal program revisions concerns the interim status standards for existing management facilities. Certain standards concerning facility operation, already in place in Division 104, are proposed for inclusion also in Division 105 to ensure consistency of their applicability to management facilities.

These requirements include: (1) Allowing design features or operating requirements to prevent overtopping of surface impoundments; (2) More explicit and stringent requirements governing final cover for landfills and minimization of erosion of the cover; (3) Requiring certification of design features or operating procedures used to prevent ignition or reaction of ignitable or reactive wastes placed in surface impoundments; (4) More explicit requirements governing the placement of empty containers in landfills; and (5) Clarification that "land treatment" of hazardous wastes is interpreted to include immobilization and transformation in addition to degradation of hazardous constituents of the wastes.

As a result of the Department's experience in implementing the April 20, 1984 set of hazardous waste rules, DEQ is proposing rule amendments consisting of technical corrections, minor substantive changes and clarifying changes to existing rules. These include the following:

Division 100

Revised definition of "existing facility." Under the present definition, an existing facility must have been in operation or under construction on or before November 19, 1980. If a facility were to

begin operating on June 1, 1985, and subsequently become subject to a permit requirement on September 1, 1985, the facility would not qualify as "existing," but would rather be a "new" facility. The result would be that, as a new facility, it would have to be issued a permit prior to construction.

The proposed revised definition would include facilities which exist on the date of future State statutory or rule amendments which make the facilities subject to regulation. (The revised definition would be consistent with that contained in the federal Hazardous and Solid Waste Amendments of 1984.) Therefore, in the example above, the facility could continue to operate while it applied to DEQ for a permit.

Division 101

Deletion of the oral, dermal and inhalation toxicity criteria for determining which pesticide residues, not already classified as hazardous, are hazardous wastes. The criteria are admittedly vague and do not specify test procedures or species for determining if a residue fails the criteria. Additionally, DEQ is not equipped to perform these types of mammalian (generally rat or rabbit) toxicity tests.

The aquatic toxicity criterion, for which DEQ has established a standard test protocol, and which is believed to be more sensitive than the other criteria, would be retained and revised to require use of DEQ's test protocol.

Divisions 104 and 105

Incorporation of the statutory provision (ORS 459.590) requiring conveyance of property deed to the State for hazardous waste disposal sites. This requirement also applies to waste pile or surface impoundment facilities which close as landfills (i.e., require post-closure permits).

Division 105

1. Clarification that the interim status standards of 40 CFR Part 265 are applicable to facilities with State-issued non-RCRA permits. In order to obtain Final Authorization from EPA, DEQ must demonstrate that all facilities which have not been issued a RCRA permit are subject to the requirements of 40 CFR Part 265. A small number of facilities exist which, by present State rule, do not have to comply with Part 265 because they have been issued non-RCRA permits. The proposed rule amendment would subject these non-RCRA permitted facilities to Part 265 until a RCRA permit is issued. Although most facilities have attempted voluntarily to meet the Part 265 standards, it is likely that some additional efforts to upgrade facility management will be needed for some facilities. Therefore, a delayed effective date of September 1, 1985, is proposed.

2. Clarification that existing facilities which as a result of future statutory or regulatory changes become subject to the requirement to have a permit must submit a Part A permit application to the Department within thirty days of the change. The current rule, OAR 340-105-010(5), which requires Part A submittal by June 1, 1984, makes no allowance for facilities which become regulated at a future date.

Division 106

1. Incorporation of the statutory provision (ORS 459.550 and .560) that a public hearing on a waste disposal facility permit is mandatory. The existing rule specifies that such a hearing is not mandatory and, therefore, is in conflict with the enabling statute.
2. Clarification of the distinction in permitting authorities between the Commission and the Department. Actions regarding disposal facility permits are reserved for the Commission, while the Department's authorities cover permits for storage and treatment facilities.
3. Extension of the Department's completeness review period for permit applications from 45 to 60 days. Recent applications submitted to DEQ have been quite detailed and comprehensive, necessitating lengthy reviews by staff. DEQ has been unable to meet the 45-day period in the current rule.

Due to the substantial amount of rule deletions and amendments necessitated by incorporating the federal requirements by reference, and at the suggestion of the Secretary of State's office, the proposed rule modifications (with the exception of Division 108) are presented in their new form without displaying deleted material in brackets and new material underscored. The Statement of Need for Rulemaking is attached.

In response to staff's identification of technical errors in the proposed rule amendments, additional proposed rule amendments (included in Attachment VII) were identified by the Department and submitted for consideration at the June 25, 1985 public hearing. The rules in Attachment IV proposed for adoption by the Commission include these additional amendments.

Following authorization by the Commission on June 7, 1985, and notice to interested persons and registered hazardous waste handlers in Oregon, a public hearing was held on June 25, 1985, in the Portland office of the DEQ. Twenty-six persons attended the hearing. Comments were received from one person at the hearing and from two persons via mail. The two comments mailed in were supportive of the proposed rule changes. The sole commenter at the hearing requested that DEQ leave the hearing record open an additional fifteen days beyond June 25, 1985, in order to allow more time to review the proposed rules. Although no substantive issues with the rules were raised by this commenter, the Department agreed to extend the deadline for receiving public comments to noon, July 10, 1985. Notice to

this effect was provided orally at the hearing and through a subsequent Department mailing and news release.

In addition to public testimony, the Department received written comments from the Environmental Protection Agency on June 27, 1985. EPA identified a few issues with the proposed rule amendments, most of which were addressed already by the Department's additional proposed rule amendments (Attachment VII) submitted for consideration at the public hearing. However, two issues remain, which the Department proposes to address in the following manner:

1. EPA Comment: The proposed rules should incorporate a requirement analogous to 40 CFR 270.72, prohibiting facilities under federal interim status from making changes "which amount to reconstruction."

DEQ Response: Add to proposed rule 340-105-040 new subsection (2)(e) which states: "In no event shall changes which amount to reconstruction of the facility be made to an existing hazardous waste management facility which has not been issued an effective RCRA permit. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable, entirely new hazardous waste management facility."

2. EPA Comment: Clarification is needed in Division 108 that compliance with Subpart D of Part 265 and the DOT requirements must be demonstrated regardless of any other requirements established in this Division.

DEQ Response: Amend existing 340-108-001(3): "Spills and other incidents occurring on the site of a generator who accumulates hazardous waste or in a hazardous waste treatment, storage or disposal facility shall be managed in accordance with the contingency plan [prepared in accordance with Subdivision D of Division 104] and emergency procedures requirements of Subpart D of 40 CFR 265."

Amend existing 340-108-020(3): "If a contingency plan is not otherwise required [or available] by Divisions 100 to 110, immediately take the following actions in the order listed:"

No unresolved issues with the proposed rules remain as of July 2. Therefore, the Department has proceeded to finalize its recommendations to the Commission. Any further testimony received by DEQ prior to July 10 will be transmitted to the Commission at its July 19 meeting.

Finally, the Department would like to alert the Commission to possible future State rulemaking needs. EPA is considering listing additional wastes and making other substantive changes which would result in greater (or in some cases, reduced) regulation. In order to maintain Final Authorization once granted, DEQ will need to maintain an equivalent State program. As a result, future additional State rulemaking can be anticipated.

Alternatives and Evaluation

Adoption of the proposed rule amendments regarding (1) dioxin-containing wastes, (2) residues which are hazardous wastes and recycled, (3) test methods for free liquids, and (4) interim status standards would enable DEQ to maintain an equivalent State hazardous waste management program and thus continue to seek RCRA Final Authorization.

Not adopting the rules identified immediately above at this time would not jeopardize a favorable EPA decision on Final Authorization. However, adoption at a later date but prior to early 1986 would be necessary to maintain Final Authorization once granted.

Not adopting the rules regarding (1) 40 CFR Part 265 applicability to facilities with state-issued non-RCRA permits, (2) notification for international shipments of hazardous waste, (3) considerations for suspending emergency permits, (4) the ban on reconstruction of existing management facilities, and (5) clarification of spill cleanup requirements would preclude Oregon from obtaining Final Authorization. Without these rule changes, DEQ's program would not be equivalent to the federal program.

If the satellite accumulation rule is not adopted, generators, including small businesses, would not benefit from a decreased administrative burden and lower costs associated with compliance.

By not clarifying existing rules to make a public hearing mandatory on waste disposal facility permits, the rules would continue to be inconsistent with the statutes. Legislative Counsel has advised that this inconsistency causes the rules to be outside the intent and scope of the enabling legislation.

An alternative to incorporating federal regulations by reference would be to continue recodifying them into State rules. This approach has generated some confusion and misunderstanding in the regulated community. As new federal requirements are promulgated, recodification into State rules would be time-consuming and possibly result in renumbering and modifying existing rules. Additionally, the Secretary of State's office may split Division 104 into separate new divisions to reduce its size.

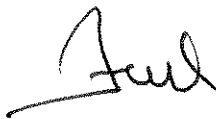
Summation

1. The DEQ presently operates a comprehensive management program that controls hazardous waste from its generation through transportation, storage, treatment and final disposition.
2. The Department desires and has been advised by the public, regulated community and Legislature to seek RCRA Final Authorization, which requires an equivalent State program.
3. The current State rules are not equivalent to recent changes made by EPA to the federal program.

4. The attached proposed rules are believed to be fully equivalent to and consistent with the federal rules.
5. Use of the recodification approach to rulemaking results in a greater administrative burden on the public, regulated community and Department.
6. Incorporating federal rules by reference reduces this administrative burden.
7. Minor substantive rule changes proposed would clarify existing rules and make the rules consistent with Oregon statutes.
8. A public hearing was held on June 25, 1985, in Portland. Written comments were received from three persons and from EPA.
9. To permit the classification of dioxin-containing residues as hazardous wastes, the Commission must find that the residues, because of their 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 significant present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Director's Recommendation

Based on the Summation, it is recommended that the Commission adopt rules in proposed Division 107 and the proposed amendments to OAR Chapter 340, Divisions 100 to 106 and 108 as contained in Attachment IV.



Fred Hansen

- Attachments
- I. Statement of Need for Rules
 - II. Statement of Land Use Consistency
 - III. Hearing Notice
 - IV. Proposed Rules and Rule Amendments, Divisions 100-108
 - V. 40 CFR Parts 260-266, 270 and 124
 - VI. Revisions to 40 CFR Parts 260-266 and 270
 - VII. Additional Rule Amendments Proposed at June 25, 1985 Public Hearing
 - VIII. Hearing Officer's Report

Alan S. Goodman:c
229-5254
July 2, 1985
ZC2217

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF MODIFYING)	STATEMENT OF NEED FOR RULE
OAR CHAPTER 340,)	MODIFICATIONS AND ADOPTION
DIVISIONS 100 TO 106 AND 108,)	
AND ADOPTING DIVISION 107)	

STATUTORY AUTHORITY:

ORS 459.440 requires the Commission to:

- (1) Adopt rules to establish minimum requirements for the treatment storage, and disposal of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage and disposal sites, and requirements and procedures for selection of such sites.
- (2) Classify as hazardous wastes those residues resulting from any process of industry, manufacturing, trade, business or government or from the development or recovery of any natural resources, which may, because of their quantity, concentration, or physical chemical or infectious characteristics:
 - (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.
- (3) Adopt rules pertaining to hearings, filing of reports, submission of plans and the issuance of licenses.
- (4) Adopt rules pertaining to generators, and to the transportation of hazardous waste by air and water.

ORS 459.455 authorizes the Commission and the Department to perform any act necessary to gain Final Authorization of a hazardous waste regulatory program under the provisions of the federal Resource Conservation and Recovery Act.

NEED FOR THE RULES:

The management of hazardous waste is currently under both state and federal control but, by being authorized, a state may manage its own hazardous waste in lieu of a federally operated program. The proposed modifications will better enable the Department to demonstrate that its program is equivalent to the federal program as required for Final Authorization.

PRINCIPAL DOCUMENTS RELIED UPON:

Existing federal hazardous waste management rules, 40 CFR Parts 260 to 266, 270, and 124, and existing State rules, OAR Chapter 340, Divisions 100 and 110.

FISCAL AND ECONOMIC IMPACT:

Adoption of these rules may increase the costs of hazardous waste management because some new requirements would be placed on certain hazardous waste recycling activities and on the disposal of highly toxic (dioxin-contaminated) wastes. The provisions for satellite accumulation of hazardous wastes would likely lower generators' operating costs.

The other rule modifications are generally clarifying in nature and will have no measurable fiscal or economic impact.

The small business impact is similar to that noted above.

ASG:c
ZC2217.1

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF MODIFYING) LAND USE CONSISTENCY
OAR CHAPTER 340,)
DIVISIONS 100 TO 106 AND 108,)
AND ADOPTING DIVISION 107)

The proposal described appears to be consistent with all statewide planning goals. Specifically, the rules comply with Goal 6 because they modify existing rules in a manner that ensures the safe management of hazardous waste generation, storage, transportation, treatment and disposal, and thereby provide protection for air, water and land resource quality.

The rules comply with Goal 11 by promoting hazardous waste reduction at the point of generation, beneficial use, recycling, treatment, and by controlling disposal site operations. They also intend to assure that current and long-range waste disposal needs will be accommodated.

Public comment on this proposal is invited and may be submitted in the manner described in the accompanying Public Notice of Rules Adoption.

It is requested that local, state and federal agencies review the proposal and comment on possible conflicts with their programs affecting land use and with statewide planning goals within their jurisdiction. The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflicts thereby brought to its attention.

After public hearing, the Commission may adopt permanent rules identical to the proposal, adopt modified rules on the same subject matter, or decline to act. The Commission's deliberation should come on July 19, 1985, as part of the agenda of a regularly scheduled Commission meeting.

7/19/85 EQC Meeting

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Public Hearing on Amendments to the Hazardous Waste Rules

Date Prepared: May 10, 1985
Hearing Date: June 25, 1985
Comments Due: June 25, 1985

**WHO IS
AFFECTED:**

Persons who manage hazardous waste, including generators, and owners and operators of hazardous waste treatment, storage and disposal facilities.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality (DEQ) proposes to amend OAR Chapter 340, Divisions 100-106 and 108, and to adopt Division 107, to include recently promulgated federal requirements. This is necessary to assure equivalence to the federal program in order for the Department to obtain Final Authorization to manage hazardous waste in Oregon.

Minor changes to clarify existing rules and incorporate federal requirements by reference are also proposed.

**WHAT ARE THE
HIGHLIGHTS:**

- o The rules would clarify which secondary materials are residues and hazardous waste when recycled. Management standards would be established for certain hazardous wastes when recycled in specific manners.
- o Certain wastes containing chlorinated dioxins and related toxic chemicals would be defined as hazardous waste and subject to special management standards.
- o Generators would be allowed to accumulate small quantities of waste at the point of generation, subject to certain conditions.
- o All rules in Divisions 100 to 106 which are identical to federal regulations would be adopted by reference to the federal rules rather than restated verbatim.

**HOW TO
COMMENT:**

A public hearing is scheduled for oral comments on:

Tuesday, June 25, 1985
9:00 a.m.
DEQ Portland Headquarters
Room 1400
522 SW Fifth Ave.

Written comments can be submitted at the public hearing or sent to DEQ, Hazardous and Solid Waste Division, Attn: Alan Goodman, PO Box 1760, Portland, Oregon, 97207, by June 25, 1985.



P.O. Box 1760
Portland, OR 97207

8/16/84

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

For more information, or to receive a copy of the proposed rules, call Alan Goodman at 229-5254.

**WHAT IS THE
NEXT STEP:**

After the public hearing, DEQ will evaluate the comments, prepare a response to comments and make a recommendation to the Environmental Quality Commission on July 19, 1985.

ZC2217.3

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

AMENDMENTS TO THE HAZARDOUS WASTE RULES

Date Prepared: June 25, 1985

Comments Due: July 10, 1985

The public comment period on amendments to DEQ's Hazardous Waste Rules has been extended until noon on July 10, 1985.

Additional modifications are being proposed by DEQ to Hazardous Waste Management Regulations including:

- o Incorporating requirements listed in existing rule 340-101-005(2) and (10) into proposed rule 340-101-025.
- o Maintenance of classification of listed wastes identified in existing rule 340-101-033 and -034 in proposed rule 340-101-040 and -045.
- o Modification of proposed rule 340-102-035 to include existing requirement of 340-102-034(1) (b).
- o Correction of reference in proposed rule 340-100-050(2) from 260.21 to 260.22.
- o Correction of the term "Administrator" as used in proposed rule 340-102-015(1).
- o Editorial change in proposed rule 340-105-075(4) (a) to enhance clarity.
- o Modification of proposed rule 340-105-095(2) to maintain equivalency with federal regulation 40 CFR 270.61(b) (4).

Written comments must be received by noon, July 10, 1985. Comments may be mailed to:

Department of Environmental Quality
Hazardous and Solid Waste Division
PO Box 1760
Portland, OR 97207
ATTN: Alan Goodman

To obtain copies of the proposed rules and additional information, contact Alan Goodman at 229-5254.

FD1926



P.O. Box 1760
Portland, OR 97207

8/10/82

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call ~~1-800-452-7813~~ and ask for the Department of Environmental Quality.

1-800-452-4011



Contains
Recycled
Materials

DIVISION 100
HAZARDOUS WASTE MANAGEMENT

Hazardous Waste Management System: General

- 340-100-005 Purpose and scope.
- 340-100-010 Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.
- 340-100-015 Confidentiality.
- 340-100-020 Table of contents, Divisions 100 to 110.
- 340-100-025 Meanings.
- 340-100-030 Definitions.
- 340-100-035 References.
- 340-100-040 General.
- 340-100-045 Petitions for equivalent testing or analytical methods.
- 340-100-050 Petitions to amend Division 101 to exclude a waste produced at a particular facility.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose and scope.

340-100-005 The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

The purpose of the management program contained in Divisions 100 to 110 of this Chapter is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Waste reduction at the point of generation, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

(Comment: Divisions 100 to 107 and 110 correspond to certain federal regulations as follows: Division 100 (40 CFR Part 260), 101 (261), 102 (262), 103 (263), 104 (264), 105 (270), 106 (124), 107 (266) and 110 (761).

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-100-010 Except as otherwise modified or specified by OAR Chapter 340, Division 100, the rules and regulations governing the management of hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 260, and amendments thereto promulgated prior to May 1, 1985, are

adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Confidentiality.

340-100-015 (1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) Records, reports, and information submitted pursuant to these rules may be claimed as confidential by the submitter. Such claim must be asserted at the time of submission by stamping the words "confidential business information" or the equivalent on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with ORS 192.500 and 459.460.

(3) Records, reports, and information submitted pursuant to these rules shall be made available to EPA upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Comment: It is suggested that claims of confidentiality be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.)

Table of contents, Divisions 100 to 110.

340-100-020 The following Divisions comprise the Oregon hazardous waste management program:

<u>Division</u>	<u>Subject</u>
100	Hazardous Waste Management System: General
101	Identification and Listing of Hazardous Waste
102	Standards Applicable to Generators of Hazardous Waste
103	Standards Applicable to Transporters of Hazardous Waste by Air or Water
104	Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
105	Management Facility Permits
106	Permitting Procedures
107	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
108	Spills and Other Incidents
109	Management of Pesticide Wastes
110	Polychlorinated Biphenyls (PCBs)

Meanings.

340-100-025 When used in 40 CFR Part 260, the following terms shall have the meanings given below:

(1) "Administrator" means the Department.

(2) "Regional Administrator" means the Department, except that when used in 40 CFR 260.30 through 260.41, it shall mean the Commission.

Definitions.

340-100-030 (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 of this Chapter, the following

terms have the meanings given below:

(a) "Aquatic LC₅₀" (median aquatic lethal concentration) means that concentration of a substance which is expected in a specific time to kill 50% of an indigenous aquatic test population as measured by the Department's aquatic toxicity procedure. Aquatic LC₅₀ is expressed in milligrams of the substance per liter of water.

(b) "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).

(c) "Collection." See "Storage."

(d) "Commission" means the Environmental Quality Commission.

(e) "Constituent" or "hazardous waste constituent" means a constituent which caused the Commission to list the hazardous waste in Division 101.

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: the adoption of rules and issuance of orders thereon pursuant to ORS 459.440, 459.445 and 468.903; the making of findings to support declassification of hazardous wastes pursuant to ORS 459.430(3); the issuance of exemptions pursuant to ORS 459.505(2); the issuance of disposal site permits pursuant to ORS 459.580(2); and the holding of hearings pursuant to ORS 459.560, 459.580(2), 459.620, 459.650, and 459.660.

(g) "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.

(h) "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:

(1) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

(2)(a) A continuous on-site, physical construction program has begun,
or

(b) The owner or operator has entered into contractual obligations-- which cannot be cancelled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

(i) "Extraction of ores and minerals" means the process of mining and removing ores and minerals from the earth.

(j) "Generator" means the person who, by virtue of ownership, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste.

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

(Comments: (1) For purposes of compliance with these rules, quantity calculations involving hazardous substances shall be made in a manner analogous to that in the comment in rule 340-101-015.

(2) These substances may include but are not necessarily the same as

those identified by DOT in 49 CFR 172.101.)

(l) "Hazardous waste" means a hazardous waste as defined in rule 340-101-015.

(m) "Identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage and disposal facility.

(n) "License." See "Permit."

(o) "Management facility" means a hazardous waste treatment, storage or disposal facility.

(p) "Off-site" means any site which is not on-site.

(q) "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).

(r) "Permit" or "license" means the control document that contains the requirements of ORS Chapter 459 and Divisions 104 to 106. 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.

(s) "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.

(t) "Spill" means unauthorized disposal.

(u) "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.

(v) "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 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.

References.

340-100-035 (1) In addition to the publications listed in 40 CFR 260.11, when used in Divisions 100 to 110, the following publications are incorporated by reference:

(a) Code of Federal Regulations, Title 40, U.S. Environmental Protection Agency.

(b) Code of Federal Regulations, Title 49, U.S. Department of Transportation.

(2) The references listed in section (1) of this rule and in 40 CFR 260.11 are available for inspection at the Department of Environmental Quality, 522 SW Fifth Ave., Portland, Oregon, 97204. These materials are incorporated as they exist on April 30, 1985.

General.

340-100-040 (1) Any person may petition the Department to approve an equivalent testing or analytical method or may petition the Commission to exclude a waste produced at a particular facility. This rule sets forth general requirements which apply to all such petitions.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.20.

40 CFR 260.20.

(3) After evaluating all public comments, the Department or Commission as appropriate will make a decision to grant or deny the petition. Persons commenting on the petition will be notified and the decision placed in the public record.

Petitions for equivalent testing or analytical methods.

340-100-045 (1) Any person seeking to add a testing or analytical method to Divisions 101, 104 or 105 shall petition under this rule and rule 340-100-040.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.21.

(3) If the Department permits use of a new testing or analytical method, the method will be made available for public inspection in the manner indicated in rule 340-100-035(2).

(Comment: In most instances, the Department will not consider approving a testing or analytical method until it has been approved by EPA.)

Petitions to amend Division 101 to exclude a waste produced at a particular facility.

340-100-050 (1) Any person seeking to exclude a waste at a particular generating facility from the lists in Subpart D of Part 261 or the lists in Division 101 shall petition under this rule and rule 340-100-040.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.22.

(3) The Commission may (but shall not be required to) grant a temporary exclusion before making a final decision under rule 340-100-040(3) whenever it finds that there is a substantial likelihood that an exclusion will be finally granted. The Commission will place any such temporary exclusion in the public record.

DIVISION 101
HAZARDOUS WASTE MANAGEMENT

Identification and Listing of
Hazardous Waste

- 340-101-005 Purpose.
- 340-101-010 Adoption of United States Environmental Protection Agency
Hazardous Waste Regulations.
- 340-101-015 Definitions and meanings.
- 340-101-020 Exclusions.
- 340-101-025 Special requirements for hazardous waste produced by small
quantity generators.
- 340-101-030 Small quantity disposal exemptions.
- 340-101-035 Hazardous waste from specific sources.
- 340-101-040 Additional hazardous wastes.
- 340-101-045 Pesticides.
- 340-101-050 Discarded commercial chemical products.
- 340-101-055 Basis for listing hazardous waste.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Purpose.

340-101-005 The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 108 of this Chapter.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-101-010 Except as otherwise modified or specified by OAR Chapter 340, Division 101, the rules and regulations governing the identification and listing of hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 261, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Definitions and meanings.

340-101-015 (1) The statutory definition of "hazardous waste" is contained in ORS 459.410, and is restated as follows:

A "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 subsections (1)(a), (b) or (c) of this rule 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 459.430(3):

(Comment: The Department may declassify listed wastes produced at a particular facility under rule 340-100-050.)

(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, 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 the 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, 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 subsections (a) and (b) of this section.

(Comment: For purposes of compliance with these rules, quantity calculation involving hazardous waste shall be made independent of the concentrations of the hazardous constituents. For example, rule 340-101-

040 identifying waste containing a concentration of 3% or greater acrolein (P003) as hazardous with a small quantity exemption of 2 lb/mo. shall be interpreted as requiring the management of 2.1 lb/mo. of a waste containing acrolein as hazardous whether the concentration of acrolein is 3, 30 or 100%.)

(2) The term "residue," when used in section (1) of this rule and in Division 101, shall have the meaning given to the term "solid waste" in 40 CFR 261.2.

(3) For purposes of identifying materials which are considered residues and subsequently residues which are considered hazardous wastes, the provisions of 40 CFR 261.2 and 261.3 shall apply.

(4) When used in 40 CFR Part 261, the following terms shall have the meanings given below:

(a) "Regional Administrator" means the Department.

(b) "Solid waste" means residue.

(c) "Administrator" means the Department, except that when used in 261.10 and 261.11, it shall mean the Commission.

Exclusions.

340-101-020 (1) The provision of 40 CFR 261.4(b)(7) is deleted and replaced with section (2) of this rule.

(2) Residues from the extraction and beneficiation of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore, are not hazardous waste.

(Comment: The State program is more stringent than the federal program in that the latter also excludes residues from processing.)

Special requirements for hazardous waste produced by small quantity generators.

340-101-025 (1) The provisions of 40 CFR 261.5(b) and 261.5(g) are deleted and replaced with sections (2), (3) and (4) of this rule.

(2) Except for those wastes identified in 40 CFR 261.5(e) and (f), a small quantity generator's hazardous wastes are subject to regulation under Divisions 100 to 108 only to the extent of generator compliance with the requirements of OAR 340-101-025(3) and the owner or operator of a treatment or storage facility's compliance with the requirements of OAR 340-101-025(4).@

(3) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under 40 CFR 261.5, the generator must:

(a)(A) Comply with 40 CFR 262.11; and

(B) If he generates more than 200 pounds in a calendar month, comply with 40 CFR 262.12(a), 262.30, 262.31, and 262.32(a).

(b) If he stores his hazardous waste on-site, store it in compliance with the requirements of 40 CFR 261.5(f); and

(c) If the quantity generated in a calendar month exceeds the small quantity disposal exemptions indicated in rule 340-101-030 of this Division: Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(A) Permitted under Division 105;

(B) In interim status under 40 CFR Parts 265 and 270;

(C) Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR Part 271;

(d) If the quantity generated in a calendar month is equal to or less than the small quantity disposal exemptions indicated in rule 340-101-030 of this Division:

(A) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(i) Permitted under Division 105;

(ii) In interim status under 40 CFR Parts 265 and 270;

(iii) Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR Part 271; or

(iv) Permitted, licensed or registered by a state to manage municipal or industrial solid waste. Additionally, the generator shall:

(I) Securely contain the waste to minimize the possibility of waste release prior to burial; and

(II) Obtain permission from the waste collector or from the landfill permittee, as appropriate, before depositing the waste in any container for subsequent collection or in any landfill for disposal. In the event that the waste collector or landfill permittee refuses to accept the waste, the Department shall be contacted for alternative disposal instructions.

(4) The owner or operator of an off-site facility that treats or stores hazardous waste obtained only from small quantity generators in amounts greater than 200 pounds but less than 2000 pounds of hazardous waste in a calendar month must obtain a letter of authorization from the Department as required by rule 340-105-100. Owners or operators of off-site facilities that treat or store more than 2000 pounds per calendar month are fully subject to regulation under Divisions 100 to 108.

Small quantity disposal exemptions.

340-101-030 The following small quantity exemption levels shall be used for purposes of rule 340-101-025:

<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>	<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>
D001	25	F001	200
D002	200	F002	200
D003	Determined by the Dept. on an individual basis, but not to exceed 200	F003	25
D004	10	F004	200
D005	200	F005	25
D006	10	F006	200
D007	200	F007	10
D008	200	F008	10
D009	10	F009	10
D010	200	F010	10
D011	200	F011	10
D012	10	F012	10
D013	10	F024	200
D014	10	F020	2
D015	10	F021	2
D016	10	F022	2
D017	10	F023	2
		F026	2
		F027	2
		F028	10
K001	10	K073	200
K002	200	K106	10
K003	200	K031	10
K004	200	K032	10
K005	200	K033	10
K006	200	K034	10
K007	200	K097	10
K008	200	K035	10
K009	200	K036	10
K010	200	K037	10
K011	200	K038	10
K013	200	K039	10
K014	200	K040	10
K015	10	K041	10
K016	200	K098	10
K017	200	K042	10
K018	200	K043	10
K019	200	K099	10
K020	200	K044	200
K021	200	K045	200
K022	200	K046	200

<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>	<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>
K023	200	K047	200
K024	200	K048	200
K025	200	K049	200
K026	200	K050	200
K027	200	K051	200
K028	200	K052	200
K029	200	K061	200
K093	200	K062	200
K094	200	K069	200
K095	200	K100	200
K096	200	K084	10
K030	200	K101	10
K083	200	K102	10
K103	200	K086	200
K104	200	K060	200
K085	200	K087	200
K105	200	K088	200
K071	10		
P001 to P999 - Commercial chemical products or intermediates			2
P001 to P999 - Spill cleanup			200
P001 to P999 - Process waste as defined in 340-101-040(2)(a)			10
U001 to U999 - Commercial chemical products or intermediates			10
U001 to U999 - Process waste as defined in 340-101-040(2)(b)			10
X001	- Pesticide waste as defined in 340-101-045		10
All F, K, U and X listed spill cleanup			2000

Hazardous waste from specific sources.

340-101-035 The following hazardous wastes are added to and made a part of the list of hazardous wastes in 40 CFR 261.32:

K088 . . . Spent potliner from primary aluminum reduction - Hazard code: R, T

Additional hazardous wastes.

340-101-040 (1) The residues identified in sections (2) and (3) 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.@

(2) Any residue, including but not limited to manufacturing process wastes and unused chemicals that has either:

(a) A 3% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e); or

(b) A 10% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f).

(3) 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); or

(b) A residue identified in subsection (2)(b).

(4) The wastes identified in subsections (2)(a) and (3)(a) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

(Comment: This rule shall be applied to a manufacturing process waste only in the event it is not identified elsewhere in this Division, but prior to application of rule 340-101-045.)

Pesticides.

340-101-045 (1) A pesticide residue or pesticide manufacturing residue is a toxic hazardous waste if a representative sample of the residue exhibits a 96-hour aquatic LC₅₀ equal to or less than 250 mg/l as measured by the DEQ Hazardous Waste Classification Aquatic Toxicity

Bioassay.

(2) A pesticide residue or pesticide manufacturing residue identified in section (1) of this rule but not in 40 CFR 261.24 or listed elsewhere in Division 101, has the Hazardous Waste Number of X001 and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.

Discarded commercial chemical products.

340-101-050 The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in this rule are added to and made a part of the list in 40 CFR 261.33(e).

P999 Nerve agents (such as GB (Sarin) and VX).

Basis for listing hazardous waste.

340-101-055 (1) The wastes identified in section (2) of this rule is hereby added to and made a part of Appendix VII: Basis for Listing Hazardous Wastes to 40 CFR Part 261.

(2) Hazardous <u>Waste No.</u>	Hazardous constituents <u>for which listed</u>
K088	cyanide

DIVISION 102
HAZARDOUS WASTE MANAGEMENT

Standards Applicable to
Generators of Hazardous Waste

- 340-102-005 Purpose.
- 340-102-010 Adoption of United States Environmental Protection Agency
Hazardous Waste Regulations.
- 340-102-015 Meanings.
- 340-102-020 Applicability.
- 340-102-025 Hazardous waste determination.
- 340-102-030 Identification number.
- 340-102-035 Accumulation time.
- 340-102-040 Recordkeeping.
- 340-102-045 Quarterly reporting.
- 340-102-050 International shipments.
- 340-102-055 Farmers.
- 340-102-060 Additional instructions for the Uniform Hazardous Waste
Manifest.
- 340-102-065 Hazardous waste generator fees.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Purpose.

340-102-005 The purpose of this Division is to establish standards for generators of hazardous waste.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-102-010 Except as otherwise modified or specified by OAR Chapter 340, Division 102, the rules and regulations governing persons who generate hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 262, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Meanings.

340-102-015 When used in 40 CFR Part 262, the following terms shall have the meanings given below:

(1) "Administrator" means the Department, except that when used in 40 CFR 262.50, it shall mean the Administrator of the U.S. Environmental Protection Agency.

(2) "Regional administrator" means the Department.

(3) "Solid waste(s)" means residue(s).

(4) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department.

Applicability.

340-102-020 (1) In addition to the provisions of 40 CFR 262.10, a person identified in section (2) of this rule who produces a pesticide residue, excluding unused commercial pesticide, that is hazardous solely by application of rule 340-101-045, is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.

(2) Exemptions under section (1) of this rule: Any person who produces an unwanted pesticide residue from agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland); industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards); structural pest control (for example, in human dwellings); ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf); forest pest control; recreational pest control (for example, in parks or golf courses); governmental (for example, for clearing a right-of-way, or vector, predator, and aquatic pest control); seed treatment; and pesticide demonstration and research.

(3) A person who generates a hazardous waste as defined by Division 101 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS 459.650 to .690, .992 and .995, and OAR Chapter 340, Division 12.

Hazardous waste determination.

340-102-025 (1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in rule 340-101-015 must determine if that residue is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4 or rule 340-101-020.

(b) He must then determine if the waste is listed as a hazardous waste in Division 101 or in Subpart D of 40 CFR Part 261, excluding application of rules 340-101-040 and -045.

(Comment: Even if the waste is listed, the generator still has an opportunity under rule 340-100-050 to demonstrate to the Department that the waste from his particular facility or operation is not a hazardous waste.)

(c) If the waste is not listed as a hazardous waste by application of subsection (2)(b) of this rule, he must determine whether the waste is identified in 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 rule 340-100-045; or

(Comment: In most instances, the Department will not consider approving a test method until it has been approved by EPA.)

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is not identified as hazardous by application of subsection (2)(c) of this rule, he must determine if the waste is listed

under rules 340-101-040 or -045, respectively.

Identification number.

340-102-030 In addition to the provisions of 40 CFR 262.13, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and identification numbering system (Dun and Bradstreet) for generators who register in the future.

Accumulation time.

340-102-035 In addition to the requirements of 40 CFR 262.34, a generator may accumulate hazardous waste on-site for 90 days or less without a permit provided that:

(1) If storing in excess of 100 containers, the waste is placed in a storage unit that meets the requirements of 40 CFR 264.175; and

(2) If storing in tanks, the tank unit complies with rule 340-104-095(2).

Recordkeeping.

340-102-040 (1) The provisions of section (2) of this rule replace the requirements of 40 CFR 262.40(b).

(2) A generator must keep a copy of each Quarterly Report and Exception Report for a period of at least three years from the due date of the report.

Quarterly reporting.

340-102-045 (1) The provisions of this rule replace the requirements of 40 CFR 262.41.

(2) A generator who ships his hazardous waste off-site must submit to the Department Quarterly Reports of the waste shipped:

(a)(A) The Quarterly Report consists of copies of the latest quarter's manifest and shipping papers. Alternatively, generators may copy the information from the manifests and shipping papers onto a form of their choice and submit it within the same time schedule.

(Comment: For ease of processing, the Department prefers xerographic or carbon copies of the manifests and shipping papers.)

(B) The Quarterly Report must be accompanied by the following certification signed and dated by the generator or his authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(b) No later than 45 days after the end of each calendar quarter.

(3) Any generator who treats, stores, or disposes of hazardous waste on-site must submit a report covering those wastes in accordance with the provisions of Divisions 104 and 105.

International shipments.

340-102-050 (1) Any person who is required to comply with 40 CFR 262.50 shall also comply with sections (2) and (3) of this rule.

(2) When shipping hazardous waste outside the United States, the generator must notify the Department in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year;

(a) The waste must be identified by its EPA hazardous waste identification number and its DOT shipping description;

(b) the name and address of the foreign consignee must be included in this notice;

(c) These notices must be sent to:

Hazardous Waste Section
Department of Environmental Quality
PO Box 1760
Portland, OR 97207

(3)(a) The requirements of subsection (3)(b) of this rule replace the provisions of 40 CFR 262.50(d)(2).

(b) In addition to the generator's signature on the certification statement, the U.S. importer or his agent must also sign and date the certification and obtain the signature of the initial transporter.

Farmers.

340-102-055 In addition to the provisions of 40 CFR 262.51, a farmer disposing of waste pesticides from his own use which are hazardous wastes shall comply with the requirements of Division 109.

Instructions for the Uniform Hazardous Waste Manifest.

340-102-055 (1) In addition to the instructions in the Appendix to 40 CFR Part 262, relating to completion of the Uniform Hazardous Waste Manifest, generators shall also comply with sections (2), (3), (4) and (5) of this rule.

(2) Enter a telephone number where an authorized agent of the first transporter may be reached in the event of an emergency, in:

- (a) Item D of EPA Form 8700-22; and
- (b) Item O of EPA Form 8700-22A, if applicable.

(3) Enter a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency, in:

- (a) Item F of EPA Form 8700-22; and
- (b) Item Q of EPA Form 8700-22A, if applicable.

(4) Enter a telephone number where an authorized agent of the facility may be reached in the event of an emergency in Item H of EPA Form 8700-22.

(5) Enter the EPA Hazardous Waste Number in:

- (a) Item I of EPA Form 8700-22; and
- (b) Item R of EPA Form 8700-22A, if applicable.

(6) The authorized disposal request number may be entered in:

- (a) Item 15 of EPA Form 8700-22; and
- (b) Item 32 of EPA Form 8700-22A, if applicable.

Hazardous waste generator fees.

340-102-065 (1) Beginning July 1, 1984, each person generating hazardous waste shall be subject to an annual fee based on the volume of hazardous waste generated during the previous calendar year. The fee

period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1, except that for fiscal year 1985 the fee shall be paid by January 1, 1985.

(2) For the purpose of determining appropriate fees, each hazardous waste generator shall be assigned to a category in Table 1 of this Division based upon the amount of hazardous waste generated in the calendar year identified in section (1) of this rule except as otherwise provided in section (5) of this section.

(3) For the purpose of determining appropriate fees, hazardous waste that is used, reused, recycled or reclaimed shall be included in the quantity determinations required by section (1) of this section.

(4) In order to determine annual hazardous waste generation rates, the Department intends to use generator quarterly reports required by rule 340-102-045; treatment, storage and disposal reports required by rule 340-104-050; and information derived from manifests required by 40 CFR 262.20. For wastes reported in the units of measure other than cubic feet, the Department will use the following conversion factors: 1.0 cubic feet = 7.48 gallons = 62.4 pounds = 0.03 tons (English) = 0.14 drums (55 gallon).

(5) Owners and operators of hazardous waste treatment, storage and disposal facilities shall not be subject to the fees required by section (1) of this rule for any wastes generated as a result of storing, treating or disposing of wastes upon which an annual hazardous waste generation fee has already been paid. Any other wastes generated by owners and operators of treatment, storage and disposal facilities are subject to the fee required by section (1) of this rule.

(6) All fees shall be made payable to the Department of Environmental Quality.

Table 1

<u>Hazardous Waste Generation Rate (cu.ft./year)</u>	<u>Fee (dollars)</u>
<35	No fee
35-99	\$ 100
100-499	350
500-999	625
1,000-4,999	1500
5,000-9,999	3500
>10,000	5000

DIVISION 103
HAZARDOUS WASTE MANAGEMENT

Standards Applicable to Transporters
of Hazardous Waste by Air or Water

- 340-103-005 Purpose and applicability.
- 340-103-010 Adoption of United States Environmental Protection Agency
Hazardous Waste Regulations.
- 340-103-015 Meanings.
- 340-103-020 Identification number.
- 340-103-025 Immediate action.
- 340-103-030 Discharge cleanup.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Purpose and applicability.

340-103-005 (1) The purpose of this Division is to establish standards which apply to persons transporting hazardous waste by air or water if the transportation requires a manifest under Division 102.

(2) Rail and highway transporters must comply with the regulations of the Public Utility Commissioner.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-103-010 Except as otherwise modified or specified by OAR Chapter 340, Division 103, the rules and regulations governing persons who transport hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 263, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Meanings.

340-103-015 When used in 40 CFR Part 263, the following terms shall have the meanings given below:

- (1) "Administrator" means the Department.
- (2) "Regional Administrator" means the Department.
- (3) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department.

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Identification Number.

340-103-020 In addition to the requirements of 40 CFR 263.11, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and EPA's identification numbering system (Dun and Bradstreet) for transporters who register in the future.

Immediate action.

340-103-025 In addition to the requirements of 40 CFR 263.30, a transporter who has discharged hazardous waste must report the discharge to the Oregon Emergency Management Division (800-452-0311).

Discharge clean up.

340-103-030 A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment. See Division 108 for further requirements.

DIVISION 104
HAZARDOUS WASTE MANAGEMENT

Standards for Owners and Operators of Hazardous
Waste Treatment, Storage and Disposal Facilities

- 340-104-005 Purpose.
- 340-104-010 Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.
- 340-104-015 Meanings.
- 340-104-020 Applicability.
- 340-104-025 Imminent hazard action.
- 340-104-030 Identification number.
- 340-104-035 Required notices.
- 340-104-040 Emergency procedures.
- 340-104-045 Availability of records.
- 340-104-050 Periodic report.
- 340-104-055 Unsaturated zone monitoring program.
- 340-104-065 Financial assurance for facility closure.
- 340-104-070 Financial assurance for post-closure care.
- 340-104-075 Liability requirements.
- 340-104-080 Use of State-required mechanisms.
- 340-104-085 State assumption of responsibility.
- 340-104-090 Wording of the instruments.
- 340-104-095 Design of tanks.
- 340-104-100 Applicability to surface impoundments.
- 340-104-105 Closure and post-closure care of surface impoundments.
- 340-104-110 Closure and post-closure care of waste piles.
- 340-104-115 Food-chain crops.
- 340-104-120 Prohibition on land disposal of ignitable wastes.
- 340-104-125 Procedure for prohibiting the land disposal of any hazardous waste.
- 340-104-130 Applicability to incinerators.
- 340-104-135 Performance standards for incinerators.
- 340-104-140 Closure requirements for waste piles and surface impoundments.

Authority: ORS Chapters 468, including 468.020; 459, including 459.440; and 183.

Purpose.

340-104-005 The purpose of this Division is to establish minimum State standards which define the acceptable management of hazardous waste.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-104-010 Except as otherwise modified or specified by OAR Chapter 340, Division 104, the rules and regulations governing the management of hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 264, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Meanings.

340-104-025 When used in 40 CFR Part 264, the following terms shall have the meanings given below:

- (1) "EPA" or "Environmental Protection Agency" means the Department.
- (2) "Administrator" means the Department.
- (3) "Regional Administrator" means the Department.

Applicability.

340-104-020 (1)(a) The provisions of subsection (1)(b) of this rule replace the requirements of 40 CFR 264.1(d).

(b) The requirements of this Division apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the following extent: 40 CFR 264.11 (identification number), 264.16 (personnel training), 264.71 (manifest system), 264.72 (manifest discrepancies), 264.73(a), (b)(1) and (b)(2) (operating record), 264.75 (periodic report), and 264.76 (unmanifested waste report). When abandonment is completed, the owner or operator must submit to the Department certification by the owner or operator and by an independent registered professional engineer that the facility has been closed in a manner that will ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another.

(2) The provisions of 40 CFR 264.1(f) and 264.3 are deleted.

(3) In addition to the requirements of 40 CFR 264.1(g)(8)(iii), any person covered by 40 CFR 264.1(g)(8)(iii) shall comply with the applicable requirements of Divisions 100 to 108.

Imminent hazard action.

340-104-025 (1) The provisions of section (2) of this rule replace the provisions of 40 CFR 264.4.

(2) Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to ORS 459.650 to .690.

Identification number.

340-104-030 In addition to the provisions of 40 CFR 264.11, as a matter of policy, the Department will accept EPA identification numbers already assigned, use an amended EPA registration form, and use EPA's identification numbering system (Dun and Bradstreet) for owners and operators who register in the future.

Required notices.

340-104-035 The provisions of 40 CFR 264.12(c) regarding transfers of ownership are hereby deleted.

Emergency procedures.

340-104-040 (1) In 40 CFR 264.56(d) prior to paragraph (1), the phrase "outside the facility" is deleted.

(2)(a) The requirements of subsection (2)(b) of this rule replace the provisions of 40 CFR 264.56(d)(2).

(b) He must immediately notify either the Department or the Oregon Emergency Management Division (using their 24-hour toll-free number 800-452-0311).

(3) In addition to the requirements of 40 CFR 264.56(j), the owner or operator's report must include:

- (a) The steps taken to prevent a recurrence of the incident; and
- (b) Any changes required in the contingency plan.

Availability of records.

340-104-045 (1) The provisions of 40 CFR 264.74(a) are replaced with section (2) of this rule.

(2) All records, including plans, required under this Division must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Department as authorized by ORS 459.285.

Periodic report.

340-104-050 (1) The provisions of this rule replace the requirements of 40 CFR 264.75.

(2) The owner or operator must prepare and submit an operating report to the Department on an approved form. Disposal facility reports are due monthly within 45 days after the end of each calendar month, and treatment and storage facility reports are due within 45 days after the end of each calendar quarter. The report must cover facility activities during the previous month or quarter, as appropriate, and must include the following information:

- (a) The EPA identification number, name, and address of the facility;
- (b) The period covered by the report;
- (c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the period; for imported shipments, the report must give the name and address of the foreign generator;
- (d) A description and the quantity of each hazardous waste the facility received during the period. For off-site facilities, this

information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) (Reserved)

(g) The most recent closure cost estimate under 40 CFR 264.142, and, for disposal facilities, the most recent post-closure cost estimate under 40 CFR 264.144; and

(h) A certification signed by the owner or operator of the facility or his authorized representative as required by 40 CFR 270.11(b).

(Comment: The state program is more stringent than the federal program in that it requires monthly or quarterly operating reports whereas the federal program requires a biennial report.)

Unsaturated zone monitoring program.

340-104-055 An owner or operator may be required to establish an unsaturated zone monitoring program consisting of soil-pore liquid monitoring in the zone immediately below a facility to determine whether hazardous constituents have migrated out of the facility. The Department will approve the components of this program based on a consideration of the construction and operation of the facility and the type and amount of waste being managed therein.

Financial assurance for facility closure.

340-104-065 (1) This rule amends the requirements of 40 CFR 264.143.

(2) An owner or operator of a disposal facility must choose the option specified in 40 CFR 264.143(a).

(3)(a) If an owner or operator uses the trust fund option specified in 40 CFR 264.143(a) to establish financial assurance for closure of the facility, he must also comply with subsection (3)(b) of this rule.

(b) During the period the current closure cost estimate (CE) exceeds the current value of the trust fund (CV), the owner or operator must also establish supplemental financial assurance in the amount CE-CV by choosing one of the options specified in 40 CFR 264.143(b) to 264.143(f).

(4) The phrase ". . . term of the initial permit . . ." in the first sentence of 40 CFR 264.143(a)(3) is deleted and replaced with the phrase ". . . initial 10 years the facility is permitted under Divisions 105 and 106 . . ."

(5) The phrase ". . . in one or more States" in the last sentence of 40 CFR 264.143(e)(1) is deleted and replaced with the phrase ". . . in Oregon."

(6) The phrase "Except as may be required by 40 CFR 264.143(f)(10)," is added to the first sentence of 40 CFR 264.143(f)(1).

(7) The phrase "An owner or operator that has a parent corporation may only meet . . ." replaces the phrase "An owner or operator may meet . . ." in the first sentence of 40 CFR 264.143(f)(10).

Financial assurance for post-closure care.

340-104-070 (1) This rule amends the requirements of 40 CFR 264.145.

(2) An owner or operator of a disposal facility must choose the option specified in 40 CFR 264.145(a).

(3)(a) If an owner or operator uses the trust fund option specified in 40 CFR 264.145(a) to establish financial assurance for post-closure care of a facility, he must also comply with subsection (3)(b) of this rule.

(b) During the period the current post-closure cost estimate (CE) exceeds the current value of the trust fund (CV), the owner or operator must also establish supplemental financial assurance in the amount CE-CV by choosing one of the options specified in 40 CFR 264.145(b) to 264.145(f).

(4) The phrase "An owner or operator that has a parent corporation may only meet . . ." replaces the phrase "An owner or operator may meet . . ." in the first sentence of 40 CFR 264.145(f)(11).

Liability requirements.

340-104-075 (1) This rule amends the requirements of 40 CFR 264.147.

(2) The phrase ". . . in one or more States" at the end of 40 CFR 264.147(a)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

(3) The phrase ". . . in one or more States" at the end of 40 CFR 264.147(b)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

(4) The provisions of 40 CFR 264.147(b)(4) are deleted.

Use of State-required mechanisms.

340-104-080. The provisions of 40 CFR 264.149 are deleted.

State assumption of responsibility.

340-104-085 The provisions of 40 CFR 264.150 are deleted.

Wording of the instruments.

340-104-090 (1) This rule amends 40 CFR 264.151.

(2) When used in 40 CFR 264.151, the references specified in section (2) of this rule shall be changed as indicated in this section.

(a) "The United States Environmental Protection Agency," "The U.S. Environmental Protection Agency," or "EPA" shall be "the Oregon Department of Environmental Quality" (hereinafter called "Department").

(b) "The United States Government" shall be "the State of Oregon."

(c) "The EPA Regional Administrator" shall be "the Department."

(d) "The appropriate EPA Regional Administrator" shall be "the Department."

(e) "The Resource Conservation and Recovery Act as amended (RCRA)" or "the Resource Conservation and Recovery Act of 1976 (as amended)" shall be "Oregon law."

(f) "Where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265" shall be "other than Oregon."

Design of tanks.

340-104-095 (1) Owners and operators of facilities subject to the requirements of 40 CFR 264.191 shall also comply with the requirements of section (2) of this rule.

(2) For tanks installed after January 1, 1985, tanks and related appurtenances, including but not limited to pipes, valves, backflow prevention devices, gauges, or pumps within 5 feet of the tank, must have secondary containment that:

(a) Is sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and

removed;

(b) Has sufficient capacity to hold the entire volume of the largest tank; and

(c) Prevents run-on into the containment system unless there is sufficient excess capacity in addition to that required by subsection (2)(b) of this rule to contain it.

(Comment: It is intended that the appurtenance containment return any leakage to the main tank containment.)

Applicability to surface impoundments.

340-104-100 (1) The provisions of 40 CFR 264.220 are deleted and replaced with the requirements of section (2) of this rule.

(2) The regulations in Subpart K of 40 CFR Part 264 apply to owners and operators of facilities that use surface impoundments to treat or store hazardous waste, except as 40 CFR 264.1 provides otherwise.

Closure and post-closure care of surface impoundments.

340-104-105 (1) The provisions of 40 CFR 264.228(a)(1), (c) and (d) are deleted and replaced with the requirements of sections (2), (3) and (4) of this rule.

(2) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 CFR 261.3(d) applies.

(Comment: The state program is more stringent than the federal

program in that it requires the removal of all wastes, etc., at closure whereas the federal program gives the option of closing with wastes left in place.)

(3) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in section (2) of this rule, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility in accordance with the closure requirements of 40 CFR 264.228(a)(2) and perform post-closure care in accordance with the closure and post-closure care requirements of 40 CFR 264.228(b).

(4)(a) The owner or operator of a surface impoundment that does not comply with the liner requirements of 40 CFR 264.221(a) and is not exempt from them in accordance with 40 CFR 264.221(b) must:

(A) Include in the closure plan for the surface impoundment under 40 CFR 264.112 both a plan for complying with section (2) of this rule and a contingency plan for complying with section (3) of this rule in case not all contaminated subsoils can be practicably removed at closure; and

(B) Prepare a contingent post-closure plan under 40 CFR 264.118 for complying with section (3) of this rule in case not all contaminated subsoils can be practicably removed at closure.

(b) The cost estimates calculated under 40 CFR 264.142 and .144 for closure and post-closure care of a surface impoundment subject to this section must include the cost of complying with the contingent closure plan and the contingent post-closure plan.

Closure and post-closure care for waste piles.

340-104-110 The phrase ". . . but are not required to include the cost of expected closure under paragraph (a) of this section" at the end of 40 CFR 264.258(c)(2) is deleted.

Food-chain crops.

340-104-115 (1) In 40 CFR 264.276, the term "animal feed crops" is substituted for the term "food chain crops."

(2) The provisions of 40 CFR 264.276(b)(1) are deleted.

(Comment: The state program is more stringent than the federal program in that it does not permit crops intended for human consumption to be grown on a land treatment facility.)

Prohibition on land disposal of ignitable wastes.

340-104-120 (1) Except as may be permitted by sections (2) and (3) of this rule or by 40 CFR 264.314(b)(1) to .314(b)(4) an owner or operator shall not place in a land disposal unit any liquid waste or the free-liquid portion of any liquid/solid waste mixture if such mixture contains in excess of 20% free liquid, if the waste was initially generated as a liquid or as a liquid/solid mixture and is identified as a hazardous waste only because it is listed on the basis of or meets the characteristic of ignitability (I).

(Comment: These wastes include but are not limited to those having EPA Hazardous Waste Numbers D001, F003, U001, U002, U008, U031, U055, U056, U057, U092, U110, U112, U113, U117, U124, U125, U154, U161, U171, U186,

U213 and U239.)

(2) The generator and owner or operator may apply for an exemption from section (1) of this rule for a specific waste if he can demonstrate that:

(a) The disposal will not pose a threat to public health or the environment due to the properties or quantity of the waste, characteristics of the landfill, the proposed disposal procedure and other relevant circumstances;

(b) The waste generator has taken all practicable steps to eliminate or minimize the generation of the waste and to recover, concentrate or render the waste non-hazardous; and

(c) There is no reasonably available means of beneficial use, reuse, recycle, reclamation or treatment.

(3) Upon receipt of a request for an exemption, the Department shall make a tentative determination to approve or deny the request within thirty (30) days of receipt. The generator and owner or operator shall have thirty (30) days from the date of tentative denial to appeal the denial to the Department. The Department shall make a final determination within ninety (90) days of the original request if a timely appeal has been filed.

(Comment: The intention of this rule is to disallow the landfilling of solids formed by soil stabilization of liquids. This rule does not pertain to liquids which become mixed with soil or other debris as the result of a spill or to lab packs as defined in 40 CFR 264.316.)

Procedure for prohibiting the land disposal of any hazardous waste.

340-104-125 (1) The Department may prohibit the land disposal of any hazardous waste if in the Department's judgment there are more environmentally sound beneficial use, reuse, recycle, reclamation, treatment or disposal options. In making such a judgment, the Department shall consider but not be limited to storage, transportation and other appropriate risks.

(2) For wastes identified under section (1) of this rule, the Department shall notify any affected generators and land disposal owners or operators, in writing, that land disposal of a specified waste is prohibited. Such notice shall indicate the specific waste affected by name and EPA Hazardous Waste Number, and shall also indicate the alternative means of beneficial use, reuse, recycle, reclamation, treatment or disposal deemed to be more environmentally sound. The Department shall provide that the prohibition is effective for the waste listed in the notice 90 days after receipt of notice. The generator or disposal facility shall have 30 days from receipt of the notice to appeal the prohibition to the Department. The Department shall make a final determination within 60 days of the original notice if a timely appeal has been filed.

Applicability to incinerators.

340-104-130 The provisions of 40 CFR 264.340(d) are deleted.

(Comment: The Department may require the owner or operator to obtain an Air Contaminant Discharge Permit and such permit may establish standards more stringent than required under Subpart O of 40 CFR Part 264.)

Performance standards.

340-104-135 The provisions of 40 CFR 264.343(d) are deleted.

Closure requirements for waste piles and surface impoundments.

340-104-140 Owners or operators of surface impoundment or waste pile facilities which close according to 340-104-105(3) or 40 CFR 264.258(b) shall comply with the requirements of rule 340-105-021 regarding conveyance of deed to the State of Oregon.

DIVISION 105
HAZARDOUS WASTE MANAGEMENT

Management Facility Permits

- 340-105-005 Purpose.
- 340-105-010 Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.
- 340-105-015 Meanings.
- 340-105-020 Applicability.
- 340-105-021 Disposal facility permit requirements.
- 340-105-025 Considerations under Federal law.
- 340-105-030 Permit transfers.
- 340-105-035 State program reporting.
- 340-105-040 General application requirements.
- 340-105-045 Requirements applicable to existing management facilities.
- 340-105-050 Confidentiality of information.
- 340-105-055 Contents of Part A of the permit application.
- 340-105-060 Contents of Part B.
- 340-105-065 Specific Part B information requirements for land treatment facilities.
- 340-105-070 Specific Part B information requirements for landfills.
- 340-105-075 Conditions applicable to all permits.
- 340-105-080 Major modification or revocation and reissuance of permits.
- 340-105-085 Minor modifications of permits.
- 340-105-090 Continuation of expiring permits.
- 340-105-095 Emergency permits.
- 340-105-100 Letter of authorization for small-quantity management facilities.
- 340-105-110 Permit fees.
- 340-105-115 Interim status.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose.

340-105-005 The purpose of this Division is to establish basic permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. These regulations are part of a regulatory scheme implementing Oregon's hazardous waste management program set forth in ORS Chapter 459 and OAR Chapter 340, Divisions 100 to 108.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-105-010 Except as otherwise modified or specified by OAR Chapter 340, Division 105, the rules and regulations governing the management of hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 270 and 265, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Meanings.

340-105-015 When used in 40 CFR Parts 265 or 270, the following terms shall have the meanings set forth below:

- (1) "RCRA" or "Resource Conservation and Recover Act," when used to refer to a federal law, means Oregon law.
- (2) "RCRA permit" means Oregon hazardous waste management permit.
- (3) "Director" means the Department, except it shall mean the

Commission when the context relates to a matter solely within the authority of the Commission.

(4) "Administrator" means the Department.

(5) "Regional Administrator" means the Department.

Applicability.

340-105-020 (1) The provisions of this rule replace the contents of 40 CFR 270.1(a), 270.1(b) and 270.1(c) prior to paragraph (c)(1).

(2)(a) Technical regulations. The hazardous waste permit program has separate additional regulations that contain technical requirements. These separate regulations are used by the Department to determine what requirements must be placed in permits if they are issued. These separate regulations are located in Division 104 of this Chapter.

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

(b) Applicability. The state hazardous waste program requires a permit for the "treatment," "storage" or "disposal" of any "hazardous waste" as identified or listed in Division 101 of this Chapter. The terms "treatment," "storage," "disposal" and "hazardous waste" are defined in rule 340-100-030. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and, for any unit which closes after the effective date of these rules, during any post-closure care period required under 40 CFR 264.117 and during any compliance period specified under 40 CFR 264.96, including

any extension of the compliance period under 40 CFR 264.96(c).

Disposal facility permit requirements.

340-105-021 Persons required to obtain a landfill operating or post-closure permit must deed to the State all that portion of the facility in or upon which hazardous wastes are disposed. If the State is required to pay the permittee just compensation for the real property deeded to it, the permittee shall pay the State annually a fee in an amount determined by the Department to be sufficient to make such real property self-supporting and self-liquidating. The Department shall lease-back the property to the permittee to enable the permittee to comply with all requirements of the permit.

Considerations under Federal law.

340-105-025 The provisions of 40 CFR 270.3 are deleted.

Permit transfers.

340-105-030 (1) A permit is personal to the permittee and is non-transferrable.

(2) The provisions of 40 CFR 270.40 are deleted.

State program reporting.

340-105-035 The provisions of 40 CFR 270.5 are deleted.

General application requirements.

340-105-040 (1) The requirements of this rule replace the provisions of 40 CFR 270.10(e) to 270.10(i).

(2) Existing management facilities. (a) Owners and operators of existing hazardous waste management facilities that do not have a permit must submit a Part A permit application to the Department within thirty days after the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit.

(b) The Department may at any time require the owner or operator of an existing management facility to submit Part B of their permit application. The owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing management facility may voluntarily submit Part B of the application at any time.

(c) An owner or operator that has not submitted an acceptable Part A permit application, or an acceptable Part B permit application when required to do so, or does not operate in compliance with the regulations of 40 CFR Part 265, as required by rule 340-105-045, shall be subject to Department enforcement action including termination of the facility's operation.

(d) If an owner or operator of an existing management facility has filed a Part A permit application but has not yet filed a Part B permit application, the owner or operator shall file an amended Part A application:

(A) No later than 15 days after the effective date of the adoption of rules listing or designating wastes as hazardous if the facility is

treating, storing or disposing of any of those newly listed or designated wastes; or

(B) Prior to any of the following actions at the facility:

(i) Treatment, storage or disposal of a new hazardous waste not previously identified in Part A of the permit application;

(ii) Increases in the design capacity of processes used at a facility. The owner or operator must submit a justification explaining the need for the increase based on the lack of available treatment, storage or disposal capacity at other hazardous waste management facilities, and receive Department approval before making such increase.

(iii) Changes in the processes for the treatment, storage or disposal of hazardous waste. The owner or operator must submit a justification explaining that the change is needed because:

(I) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(II) It is necessary to comply with the requirements of Divisions 100 to 108.

The owner or operator must receive Department approval before making such change.

(iv) Changes in the ownership or operational control of a facility. The new owner or operator must submit a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of Subpart H of 40 CFR Part 265 (financial requirements), until the Department has released him in writing. The Department shall not release the old owner or operator until the new owner or operator has demonstrated to the Department that he is complying with that Subpart. All other duties required by these rules are

transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(e) In no event shall changes which amount to reconstruction of the facility be made to an existing hazardous waste management facility which has not been issued an effective RCRA permit. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable, entirely new hazardous waste management facility.

(3) New management facilities. (a) No person shall begin physical construction of a new management facility without having submitted Part A and Part B of the permit application and having received a finally effective hazardous waste permit.

(b) An application for a permit for a new management facility (including both Part A and Part B) may be filed with the Department any time after promulgation of those standards in Division 104 applicable to such facility. All applications must be submitted at least 180 days before physical construction is expected to commence.

(4) Reapplication. Any management facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(5) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under 40 CFR 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

Requirements applicable to existing management facilities.

340-105-045 (1) An owner or operator of an existing management facility that has not been issued a management facility permit shall comply with the regulations of 40 CFR Part 265 until final administrative disposition of a permit is made.

(2) After September 1, 1985, and until final administrative disposition of a permit under these rules is made, an owner or operator of a management facility that has received a State-issued non-RCRA permit shall comply with the regulations of 40 CFR Part 265 in those instances where a regulation exists and with the conditions of the permit in those instances where a regulation does not exist.

(3) After final administrative disposition of a permit is made, a management facility shall not treat, store or dispose of hazardous waste without a permit issued in accordance with Divisions 100 to 106.

Confidentiality of information.

340-105-050 (1) The provisions of this rule replace the contents of 40 CFR 270.12.

(2) In accordance with ORS 192.500 and 459.460, any information submitted to the Department pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information," or the equivalent, on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in ORS

192.500 and 459.460.

(Comment: Any information stamped confidential must be accompanied by an explanation as to why it should be so considered under the criteria of ORS 192.500 and 459.460. The Department believes that very little, if any, information in an application will meet the criteria.)

(3) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) Any information submitted to the Department shall be available to the Environmental Protection Agency upon request. If the information has been submitted under a claim of confidentiality, the Department shall make that claim of confidentiality to the Environmental Protection Agency for the requested information. The federal agency shall treat the information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

Contents of Part A of the permit application.

340-105-055 In addition to the requirements of 40 CFR 270.13, Part A of the permit application shall include a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals.

Contents of Part B.

340-105-014 In addition to the information required by 40 CFR 270.14, Part B of the permit application shall include other information pertinent to the facility as may be requested by the Department.

Specific Part B information requirements for land treatment facilities.

340-105-065 The requirements of 40 CFR 270.20(d) and (e) are applicable to animal feed crops.

(Comment: The Department does not allow food-chain crops to be grown in or on the treatment zone of a hazardous waste land treatment unit.)

Specific Part B information requirements for landfills.

340-105-070 In addition to the information required by 40 CFR 270.21, the following additional information shall be submitted in a Part B application:

(1) A detailed report with supporting information justifying the need for the landfill as proposed; and

(2) An explanation of how the requirements of rule 340-104-120 will be complied with after January 1, 1985.

Conditions applicable to all permits.

340-105-075 (1) The phrase ". . . the appropriate Act . . ." in the second sentence of 40 CFR 270.30(a) is deleted and replaced with the phrase ". . . ORS Chapter 459 and OAR Chapter 340 . . ."

(2) The provisions of 40 CFR 270.30(1)(2)(ii)(B) are deleted.

(3)(a) The provisions of 40 CFR 270.30(1)(3) are deleted and replaced with subsection (3)(b) of this rule.

(b) Transfers. The permit is personal to the permittee and is non-transferable.

(4)(a) The provisions of 40 CFR 270.30(1)(6)(i) preceding

270.30(1)(6)(1)(A) and (B) are deleted and replaced with subsection (4)(b) of this rule.

(b) Immediate reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment as soon as he becomes aware of the circumstances, including:

(5)(a) The provision of 40 CFR 270.30(1)(9) is deleted and replaced with subsection (5)(b) of this rule.

(b) Periodic report. A periodic report must be submitted covering facility activities on an appropriate schedule (see rule 340-104-050).

Major modifications or revocation and reissuance of permits.

340-105-080 (1) The sentence "If cause does not exist under this section or 40 CFR 270.42, the Director shall not modify or revoke and reissue the permit" in the first paragraph of 40 CFR 270.41 is deleted.

(2)(a) The provision of 40 CFR 270.41(a) preceding paragraph (a)(1) is deleted and replaced with subsection (2)(b) of this rule.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(3)(a) The provisions of 40 CFR 270.41(a)(3) are deleted and replaced with subsection (3)(b) of this rule.

(b) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

(4) The provision of 40 CFR 270.41(b)(2) is deleted.

Minor modifications of permits.

340-105-085 The provisions of 40 CFR 270.42(d) are deleted.

Continuation of expiring permits.

340-105-090 (1) The provisions of 40 CFR 270.51 are deleted and replaced with sections (2) and (3) of this rule.

(2) The conditions of an expired permit continue in force until the effective date of a new permit if:

(a) The permittee has submitted a timely application under 40 CFR 270.14 and the applicable sections in 40 CFR 270.15 to 270.29 which is a complete (under 40 CFR 270.10(c)) application for a new permit; and

(b) The Department through no fault of the permittee, does not issue a new permit with an effective date under 40 CFR 270.15 on or before the expiration date of the previous permit (for example, when issuance is impractical due to time or resource constraints).

(3) Effect. Permits continued under this rule remain fully effective and enforceable.

Emergency permits.

340-105-095 (1) The provisions of 40 CFR 270.61(b)(4) are deleted and replaced with section (2) of this rule.

(2) May be suspended or renewal refused by the Department at any time without prior hearing if it finds a serious danger to the public health, safety or the environment and sets forth specific reasons for such findings;

Letter of authorization for small-quantity management facilities.

340-105-100 (1) Except as indicated in section (3) of this rule, owners or operators of off-site facilities that treat or store more than 200 pounds of hazardous waste per calendar month must obtain a letter of authorization from the Department if such waste is obtained only from small-quantity generators.

(2) The letter of authorization:

(a) Shall be written;

(b) Shall not exceed 5 years in duration;

(c) Shall clearly specify the hazardous wastes to be received, the treatment process, and the disposal of all hazardous products generated by that process;

(d) May require the operator to obtain Department approval prior to receipt of each specific waste;

(e) May require the operator to demonstrate that, due to the type and quantity of waste, its operation and other relevant factors, the facility is not likely to endanger public health or the environment;

(f) May be suspended or revoked at any time if it is determined that such action is appropriate to protect public health or the environment; and

(g) May include any applicable requirements of Division 104.

(3) The Department may require the owner or operator to obtain a hazardous waste permit if it determines that operation of the facility may endanger public health or the environment.

Permit fees.

340-105-110 (1) Beginning July 1, 1984, each person required to have a hazardous waste storage, treatment or disposal permit (management facility permit) shall be subject to a three-part fee consisting of a filing fee, an application processing fee and an annual compliance determination fee as listed in Table 1 of this Division. The amount equal to the filing fee, application processing fee and the first year's annual compliance determination fee shall be submitted as a required part of any application for a new permit. The amount equal to the filing fee and application processing fee shall be submitted as a required part of any application for renewal or modification of an existing permit.

(2) As used in this rule, the following definitions shall apply:

(a) The term management facility includes, but is not limited to:

(A) Hazardous waste storage facility;

(B) Hazardous waste treatment facility; and

(C) Hazardous waste disposal facility.

(b) The term hazardous wastes includes any residue or hazardous wastes as defined in Division 101 handled under the authority of a management facility permit.

(c) The term license and permit shall mean the same thing and will be referred to in this rule as permit.

(3) The annual compliance determination fee shall be paid for each year a management facility is in operation and, in the case of a disposal facility, for each year that post-closure care is required. The fee period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1. Any annual compliance determination fee submitted as part of an application for a new permit shall apply to the fiscal year the

permitted management facility is put into operation. For the first year's operation, the full fee shall apply if the management facility is placed into operation on or before April 1. Any new management facility placed into operation after April 1 shall not owe a compliance determination fee until July 1 of the following year. The Director may alter the due date for the annual compliance determination fee upon receipt of a justifiable request from a permittee.

(4) For the purpose of determining appropriate fees, each management facility shall be assigned to a category in Table 1 of this Division based upon the amount of hazardous waste received and upon the complexity of each management facility. Each management facility which falls into more than one category shall pay whichever fee is higher. The Department shall assign a storage and treatment facility to a category on the basis of design capacity of the facility. The Department shall assign a new disposal facility to a category on the basis of estimated annual cubic feet of hazardous waste to be received and an existing disposal facility on the basis of average annual cubic feet of hazardous waste received during the previous three calendar years.

(5) Where more than one management facility exists on a single site, in addition to the compliance determination fee required by rules 340-105-110(3) and (4), a flat fee of \$250 shall be assessed for each additional management facility.

(6) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes and do not require re-filing or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.

(7) Upon the Department accepting an application for filing, the filing fee shall be nonrefundable.

(8) The application processing fee, except for disposal permits, may be refunded in whole or in part when submitted with an application if either of the following conditions exist:

(a) The Department determines that no permit will be required.

(b) The applicant withdraws the application before the Department has approved or denied the application.

(9) The annual compliance determination fee may be refunded in whole or in part when submitted with a new permit application if either of the following conditions exist:

(a) The Department denies the application.

(b) The permittee does not proceed to construct and operate the permitted facility.

(10) All fees shall be made payable to the Department of Environmental Quality.

Table 1: Fee Schedule

(1) Filing Fee. A filing fee of \$50 shall accompany each application for issuance, renewal or modification of a hazardous waste management facility permit. This fee is nonrefundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between \$25 and \$5,000 shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) A new facility (including substantial expansion of an existing facility):

(A) Storage facility	\$ 150
(B) Treatment facility - Recycling	150
(C) Treatment facility - other than incineration	250
(D) Treatment facility - incineration	500
(E) Disposal facility	5,000
(F) Disposal facility - post closure	2,500

(b) Permit Renewal:

(A) Storage facility	50
(B) Treatment facility - recycling	50
(C) Treatment facility - other than incineration	75
(D) Treatment facility - incineration	175
(E) Disposal facility	5,000
(F) Disposal facility - post closure	800

(c) Permit Modification - Changes to Performance/Technical Standards:

(A) Storage facility	50
(B) Treatment facility - recycling	50
(C) Treatment facility - other than incineration	75
(D) Treatment facility - incineration	175
(E) Disposal facility	1,750
(F) Disposal facility - post closure	800

(d) Permit Modification - All Other Changes not Covered by (2)(c):

All categories 25

(e) Permit Modifications - Department Initiated . no fee

(3) Annual Compliance Determination Fee. (In any case where a facility fits into more than one category, the permittee shall pay only the highest fee):

(a) Storage facility:

- (A) 5-55 gallon drums or 250 gallons
total or 2,000 pounds 250
- (B) 5 to 250 - 55 gallon drums or 250
to 10,000 gallons total or 2,000
to 80,000 pounds 1,000
- (C) >250 - 55 gallon drums or >10,000
gallons total or >80,000 pounds 2,500

(b) Treatment Facility:

- (A) <25 gallons/hour or 50,000 gallon/day
or 6,000 pounds/day 250
- (B) 25-200 gallons/hour or 50,000 to
500,000 gallons/day or 6,000 to
60,000 pounds/day 1,000
- (C) >200 gallons/hour or >500,000
gallons/day or >60,000 pounds/day . . . 2,500

(c) Disposal Facility:

- (A) <750,000 cubic feet/year or
 <37,500 tons/year \$ 50,000
- (B) 750,000 to 2,500,000 cubic feet/year
 or 37,500 to 125,000 tons/year 100,000
- (C) >2,500,000 cubic feet/year or
 >125,000 tons/year 150,000

(d) Disposal Facility - Post Closure:

All categories 5,000

Interim status.

340-105-115 The provisions of 40 CFR 270.70 to 270.73, pertaining to interim status, are not included in the State's hazardous waste management program.

(Comment: State requirements applicable to existing hazardous waste management facilities are identified in rules 340-105-040 and -045 and include provisions analogous to those of 40 CFR 270.72.)

DIVISION 106
HAZARDOUS WASTE MANAGEMENT

Permitting Procedures

- 340-106-005 Purpose.
- 340-106-010 Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.
- 340-106-015 Meanings.
- 340-106-020 Requirements not applicable.
- 340-106-025 Recommendations by State agencies on waste disposal facility applications.
- 340-106-030 Application review.
- 340-106-035 Modification, revocation and reissuance, or termination of permits.
- 340-106-040 Draft permits.
- 340-106-045 Public hearings on disposal facility draft permits.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose.

340-106-005 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.

(Comment: 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.)

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-106-010 Except as otherwise modified or specified by OAR Chapter 340, Division 106, the rules and regulations governing permitting procedures for hazardous waste management facilities, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 124, Subpart A, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

(Comment: 40 CFR Part 124 includes requirements applicable to several programs, including UIC, NPDES, 404, etc. Only the provisions of 40 CFR Part 124 Subpart A which are applicable to hazardous waste or "RCRA" permits are being adopted by the Commission, as modified by Division 106.)

Meanings.

340-106-015 (1) When used in 40 CFR Part 124, Subpart A, the following terms shall have the meanings set forth below:

(a) "Director" or "Regional Administrator" means:

(A) The Department when used in 40 CFR 124.3; 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.

(b) "RCRA permit" means hazardous waste management facility permit.

(2) The term "permitting body" when used as specified in paragraph (1)(a)(B) of this rule, 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.

Requirements not applicable.

340-106-020 The provisions of 40 CFR 124.1, 124.4, 124.9, 124.11(e), 124.13, 124.14(c), 124.15(b), 124.16, 124.17(b), 124.18, 124.19, 124.20 and 124.21 are deleted and not part of Division 106.

Recommendations by State agencies on waste disposal facility applications.

340-106-025 (1) In addition to the requirements of 40 CFR 124.3, the provisions of section (2) of this rule shall be followed.

(2) The Commission shall cause copies of disposal site applications to

be sent to affected state agencies, including the Health Division, the Public Utility Commissioner, the State Fish and Wildlife Commission and the Water Resources Director. Each agency shall respond by making a recommendation as to whether the permit should be granted. If the Health Division recommends against granting the permit, the permit must be denied. Recommendation from other agencies shall be considered as evidence in determining whether to issue the permit.

Application review.

340-106-030 The requirements of 40 CFR 124.3 are amended as specified by sections (1), (2) and (3) of this rule.

(1) Each application from either an existing or new hazardous waste management facility for a permit will be reviewed for completeness by the Department within 60 days of its receipt.

(2) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken.

(3) The provisions of 40 CFR 124.3(g) are deleted.

Modification, revocation and reissuance, or termination of permits.

340-106-035 (1) The provisions of 40 CFR 124.5(b) are deleted and replaced with subsections (1)(a), (b) and (c) of this rule.

(a) If the permitting body decides the request is not justified, it shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment or hearings.

(b) Denials by the Department may be appealed to the Commission by a letter briefly setting forth the relevant facts. The Commission may direct the Department to begin modification, revocation and reissuance, or termination proceedings under 40 CFR 124.5(c). The appeal shall be considered denied if the Commission takes no action on the letter within 60 days after receiving it. This appeal is a prerequisite to seeking judicial review of Department action in denying a request for modification, revocation and reissuance, or termination.

(c) Denials by the Commission are subject to judicial review under ORS 183.480.

(2) The provisions of 40 CFR 124.5(e), (f) and (g) are deleted.

Draft permits.

340-106-040 The requirements of 40 CFR 124.6(e) are modified by deleting the sentence "For RCRA, UIC or PSD permits, . . . under 124.74."

Public hearings on disposal facility draft permits.

340-106-045 In addition to the provisions of 40 CFR 124.12, the requirements of sections (1) and (2) of this rule are applicable to hazardous waste disposal facilities.

(1) The Commission shall conduct a public hearing in the county or counties where a proposed hazardous waste disposal site is located and may conduct hearings at such other places as the Department considers suitable. At the hearing, the applicant may present the application and the public may appear or be represented in support of or in opposition to the application.

(2)(a) Prior to holding hearings on a hazardous waste disposal site license application, the Commission shall cause notice to be given in the county or counties where the proposed site is located in a manner reasonably calculated to notify interested and affected persons of the license application.

(b) The notice shall contain information regarding the approximate location of the site and the type and amount of materials intended for disposal at such site, and shall fix a time and place for a public hearing. In addition, the notice shall contain a statement that any person interested in or affected by the proposed site shall have opportunity to testify at the hearing.

DIVISION 107
HAZARDOUS WASTE MANAGEMENT

Standards for the Management of
Specific Hazardous Wastes and Specific Types
of Hazardous Waste Management Facilities

340-107-005 Purpose.
340-107-010 Adoption of United States Environmental Protection Agency
Hazardous Waste Regulations.

Authority: ORS Chapter 468, including 468.020; 459, including
459.440; and 183.

Purpose.

340-107-005 The purpose of this Division is to establish requirements for persons managing specific hazardous wastes which are recycled (known as "recyclable materials") in specific manners.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-107-010 Except as otherwise modified or specified by OAR Chapter 340, Division 107, the rules and regulations governing the management of hazardous waste, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 266, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

DIVISION 108
HAZARDOUS WASTE MANAGEMENT

Spills and Other Incidents

Subdivision A: General

- 340-108-001 Purpose and applicability.
- 340-108-002 Definitions.

Subdivision B: Liability

- 340-108-010 Liability.

Subdivision C: Required Action

- 340-108-020 Emergency action, reporting.
- 340-108-021 Cleanup report.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Subdivision A: General

Purpose and applicability.

340-108-001 (1) The purpose of this Division is to specify the emergency procedures required to respond to a spill or other incident involving a hazardous waste or hazardous substance.

(2) The regulations of this Division apply to all persons whose actions cause or allow to be caused a hazardous waste or hazardous substance spill or other incident; except that

(3) Spills and other incidents occurring on the site of a generator who accumulates hazardous waste or in a hazardous waste treatment, storage or disposal facility shall be managed in accordance with the contingency plan [prepared in accordance with Subdivision D of Division 104] and emergency procedures requirements of Subpart D of 40 CFR 265.

(4) Oil spilled in an area that may allow it to reach any waters of the state shall also be managed in accordance with ORS Chapter 468 and OAR Chapter 340, Division 47.

Definitions.

340-108-002 As used in this Division unless otherwise specified:

"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.

"Hazardous substance" means any substance intended for use which

may also be identified as hazardous pursuant to Division 101.

"Hazardous waste" means a hazardous waste as defined in rule 340-101[-003]-015.

"Oil" means oil, including gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.

"Other incident" includes but is not limited to the actual or imminent possibility of a dangerous uncontrolled reaction, the release of leachate, noxious gases or odors, fires, explosion or other disposal which may endanger public health or the environment.

"Modified Spill Prevention Control and Countermeasure (SPCC) Plan" means the plan to prevent the spill of oil from a non-transportation-related facility that has been modified to include those hazardous substances and hazardous wastes handled at the facility.

"Spill" means unauthorized disposal.

"Waters of the state" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Subdivision B: Liability

Liability.

340-108-010 (1) Any person having the care, custody or control of a hazardous waste or a hazardous substance, who causes or permits the disposal of that waste or substance in violation of law or otherwise than as reasonably intended for normal use or handling of such waste or substance, including but not limited to spills or other incidents, shall be liable for the damages to person or property, public or private, caused by the disposal.

(2) It shall be the obligation of such person to collect, remove or treat the waste or substance immediately, subject to the requirements of Divisions 100 to 108 and such direction as the Department may give.

(Comment: [Rule 340-105-001(2)(c)] 40 CFR 264.1(g) states that a permit is not required for treatment or containment activities taken during immediate response to a spill or other incident.)

(3) If such person fails to collect, remove or treat the waste or substance when under an obligation to do so, the Department will take action as is necessary to collect, remove or treat the waste or substance.

(4) The Department will keep a record of all necessary expenses incurred in carrying out any cleanup projects or activities, including reasonable charges for services performed and equipment and materials utilized.

(5) Any person who fails to collect, remove or treat the waste or substance immediately, when under an obligation to do so, shall be responsible for the necessary expenses incurred by the State in carrying out a cleanup project or activity authorized by the Department.

(6) If the amount of state-incurred expenses are not paid to the Department within 15 days after receipt of notice that expenses are due and owing, the Attorney General, at the request of the Department, shall bring an action in the name of the State of Oregon in any court of competent jurisdiction to recover the amount specified in the final order of the Department.

Subdivision C: Required Action

Emergency action, reporting.

340-108-020 In the event of a spill or other incident, the person having the care, custody, or control of the hazardous waste or hazardous substance shall take the following actions, as appropriate:

(1) Immediately implement the site modified SPCC plan or other applicable contingency plan.

(Comment: Generators [storing] accumulating hazardous waste for less than 90 days are required to have a contingency plan prepared in accordance with [rule 340-102-034] 40 CFR 262.34.)

(2) If a contingency plan is not otherwise required [or available] by Divisions 100 to 110, immediately take the following actions in the order listed:

(a) Activate alarms or otherwise warn persons in the immediate area;

(b) Undertake every reasonable method to contain the hazardous substance or hazardous waste;

(c)(A) Report the spill or other incident to the Oregon Emergency Management Division (telephone 800-452-0311) if the amount of hazardous waste or hazardous substance exceeds the following reportable quantity (in the event a substance or waste falls into more than one category, the lower quantity shall be reported):

<u>Substance or Waste Type</u>	<u>Reportable Quantity (pounds)</u>
Ignitable, [rule 340-101-021] <u>40 CFR 261.21</u>	200
Corrosive, [rule 340-101-022] <u>40 CFR 261.22</u>	200
Reactive, [rule 340-101-023] <u>40 CFR 261.23</u>	200
EP Toxic, [rule 340-101-024] <u>40 CFR 261.24</u>	10

Listed, [rule 340-101-031 and -032]	10
<u>40 CFR 261.31 and .32</u>	
Listed, [rule 340-101-033(1)(a) and (2)(a)]	2
<u>40 CFR 261.33(e)</u>	
Listed, [rule 340-101-033(1)(b), (2)(b) and (3)(a)]	10
<u>40 CFR 261.33(f)</u>	
Listed, rule 340-101-040	10
Pesticide, rule 340-101-[034] <u>045</u>	10
PCB, rule 340-110-001(2)	10

(Comment: "Ignitable" includes the DOT classifications "Flammable," "Oxidizer," and some "Combustible.")

(B) Transporters must report spills of any quantity that occur during transportation. Transporters must also report spills or other incidents to the National Response Center (800-424-8802) as required by 49 CFR 171.15, and, if a water transporter, as required by 33 CFR 153.203;

(C) The spill or other incident need not be reported if:

(i) It occurs on private property and is known to the owner of the property (or his representative);

(ii) It occurs on an impervious surface where it is fully contained;
and

(iii) It is completely cleaned up without further incident.

(Comment: For reporting purposes, quantity calculation involving hazardous waste shall be made independent of the concentrations of the hazardous components. For example, the table in this rule requires reporting a 10 pound spill of acrolein (a rule 340-101-[033(3)(a)] 040 waste). This shall be interpreted as requiring reporting a 10 pound spill of a waste containing acrolein whether the concentration of acrolein is 3, 30 or 100%.)

(d) Undertake, in the most practicable manner, the collection, removal or treatment of the hazardous substance or hazardous waste in accordance with the requirements of Divisions 100 to 110 and in a manner that will

minimize damage to the environment. The Department may, in any case, evaluate the action taken and may require additional action to complete the cleanup and disposal.

Cleanup Report

340-108-021 The Department may require the person responsible for a spill or other incident to submit a written report within 15 days of the spill or other incident describing all aspects of the spill and steps taken to prevent a recurrence.

(Comment: Transporters are also required by the Public Utility Commissioner to file a Hazardous Materials Incident Report (DOT Form F5800.0) within 15 days after a spill. A copy of this report may be sent to the Department in lieu of the report required by this rule.)

Attachments V and VI

These attachments are too voluminous to photocopy. Copies may be obtained by contacting Al Goodman, DEQ Hazardous and Solid Waste Division, 229-5254 in Portland.

proportion as to be capable of attracting or providing food for birds.

§ 257.4 Effective date.

These criteria become effective October 15, 1979.

APPENDIX I

The maximum contaminant levels promulgated herein are for use in determining whether solid waste disposal activities comply with the ground-water criteria (§ 257.3-4). Analytical methods for these contaminants may be found in 40 CFR Part 141 which should be consulted in its entirety.

1. *Maximum contaminant levels for inorganic chemicals.* The following are the maximum levels of inorganic chemicals other than fluoride:

Contaminant	Level (milligrams per liter)
Arsenic	0.05
Barium	1
Cadmium	0.010
Chromium	0.05
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05

The maximum contaminant levels for fluoride are:

Temperature: degrees Fahrenheit	Degrees Celsius	Level (milligrams per liter)
53.7 and below	12 and below	2.4
53.8 to 58.3	12.1 to 14.6	2.2
58.4 to 63.8	14.7 to 17.6	2.0
63.9 to 70.6	17.7 to 21.4	1.8
70.7 to 79.2	21.5 to 26.2	1.6
79.3 to 90.5	26.3 to 32.5	1.4

¹ Annual average of the maximum daily air temperature.

2. *Maximum contaminant levels for organic chemicals.* The following are the maximum contaminant levels for organic chemicals:

	Level (milligrams per liter)
(a) Chlorinated hydrocarbons: Endrin (1,2,3,4,10,10-Hexachloro-8,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo 5,8-dimethano naphthalene)	0.0002

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	Level (milligrams per liter)
Lindane (1,2,3,4,5,6-Hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro 2,2-bis (p-methoxyphenyl) ethane)	0.1
Toxaphene (C ₁₂ H ₈ Cl ₇ -Technical chlorinated camphene, 67 to 69 percent chlorine)	0.005
(b) Chlorophenoxy: 2,4-D (2,4-Dichlorophenoxy-acetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

3. *Maximum microbiological contaminant levels.* The maximum contaminant level for coliform bacteria from any one well is as follows:

- (a) using the membrane filter technique:
 - (1) Four coliform bacteria per 100 milliliters if one sample is taken, or
 - (2) Four coliform bacteria per 100 milliliters in more than one sample of all the samples analyzed in one month.
- (b) Using the five tube most probable number procedure, (the fermentation tube method) in accordance with the analytical recommendations set forth in "Standard Methods for Examination of Water and Waste Water", American Public Health Association, 13th Ed. pp. 662-688, and using a Standard sample, each portion being one fifth of the sample:

(1) If the standard portion is 10 milliliters, coliform in any five consecutive samples from a well shall not be present in three or more of the 25 portions, or

(2) If the standard portion is 100 milliliters, coliform in any five consecutive samples from a well shall not be present in five portions in any of five samples or in more than fifteen of the 25 portions.

4. *Maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity.* The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity:

(a) Combined radium-226 and radium-228—5 pCi/l;

(b) Gross alpha particle activity (including radium-226 but excluding radon and uranium)—15 pCi/l.

APPENDIX II

A. Processes to Significantly Reduce Pathogens

Aerobic digestion. The process is conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from 60 days at 15° C to 40 days at 20° C, with a volatile solids reduction of at least 38 percent.

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Air Drying: Liquid sludge is allowed to drain and/or dry on under-drained sand beds, or paved or unpaved basins in which the sludge is at a depth of nine inches. A minimum of three months is needed, two months of which temperatures average on a daily basis above 0° C.

Anaerobic digestion: The process is conducted in the absence of air at residence times ranging from 60 days at 20° C to 15 days at 35° to 55° C, with a volatile solids reduction of at least 38 percent.

Composting: Using the within-vessel, static aerated pile or windrow composting methods, the solid waste is maintained at minimum operating conditions of 40° C for 5 days. For four hours during this period the temperature exceeds 55° C.

Lime Stabilization: Sufficient lime is added to produce a pH of 12 after 2 hours of contact.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

B. Processes to Further Reduce Pathogens

Composting: Using the within-vessel composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the static aerated pile composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the windrow composting method, the solid waste attains a temperature of 55° C or greater for at least 15 days during the composting period. Also, during the high temperature period, there will be a minimum of five turnings of the windrow.

Heat drying: Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent or lower. Sludge particles reach temperatures well in excess of 80° C, or the wet bulb temperature of the gas stream in contact with the sludge at the point where it leaves the dryer is in excess of 80° C.

Heat treatment: Liquid sludge is heated to temperatures of 180° C for 30 minutes.

Thermophilic Aerobic Digestion: Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55-60° C, with a volatile solids reduction of at least 38 percent.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Any of the processes listed below, if added to the processes described in Section A above, further reduce pathogens. Because the processes listed below, on their own, do

not reduce the attraction of disease vectors, they are only add-on in nature.

Beta ray irradiation: Sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Gamma ray irradiation: Sludge is irradiated with gamma rays from certain isotopes, such as ⁶⁰Cobalt and ¹³⁷Cesium, at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Pasteurization: Sludge is maintained for at least 30 minutes at a minimum temperature of 70° C.

Other methods: Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above add-on methods.

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

Subpart A—General

- Sec. 260.1 Purpose, scope, and applicability.
- 260.2 Availability of information; confidentiality of information.
- 260.3 Use of number and gender.

Subpart B—Definitions

- 260.10 Definitions.
- 260.11 References.

Subpart C—Rulemaking Petitions

- 260.20 General.
- 260.21 Petitions for equivalent testing or analytical methods.
- 260.22 Petitions to amend Part 261 to exclude a waste produced at a particular facility.

APPENDIX I—OVERVIEW OF SUBTITLE C REGULATIONS

AUTHORITY: Secs. 1006, 2002, 3001 through 3007, 3010, and 7004, Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6905, 6912, 6921 through 6927, 6930, and 6974.

SOURCE: 45 FR 33073, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: The reporting or record-keeping provisions included in the final rule published at 47 FR 32274, July 26, 1982, will be submitted for approval to the Office of Management and Budget (OMB). They are not effective until OMB approval has been obtained. EPA will publish a notice of the effective date of the reporting and record-keeping provisions of this rule after it obtains OMB approval.

Subpart A—General

§ 260.1 Purpose, scope, and applicability.

(a) This part provides definitions of terms, general standards, and overview information applicable to Parts 260 through 265 of this chapter.

(b) In this part: (1) Section 260.2 sets forth the rules that EPA will use in making information it receives available to the public and sets forth the requirements that generators, transporters, or owners or operators of treatment, storage, or disposal facilities must follow to assert claims of business confidentiality with respect to information that is submitted to EPA under Parts 260 through 265 of this chapter.

(2) Section 260.3 establishes rules of grammatical construction for Parts 260 through 265 of this chapter.

(3) Section 260.10 defines terms which are used in Parts 260 through 265 of this chapter.

(4) Section 260.20 establishes procedures for petitioning EPA to amend, modify, or revoke any provision of Parts 260 through 265 of this chapter and establishes procedures governing EPA's action on such petitions.

(5) Section 260.21 establishes procedures for petitioning EPA to approve testing methods as equivalent to those prescribed in Parts 261, 264, or 265 of this chapter.

(6) Section 260.22 establishes procedures for petitioning EPA to amend Subpart D of Part 261 to exclude a waste from a particular facility.

§ 260.2 Availability of information; confidentiality of information.

(a) Any information provided to EPA under Parts 260 through 265 of this chapter will be made available to the public to the extent and in the manner authorized by the Freedom of Information Act, 5 U.S.C. section 552, section 3007(b) of RCRA and EPA regulations implementing the Freedom of Information Act and section 3007(b), Part 2 of this chapter, as applicable.

(b) Any person who submits information to EPA in accordance with Parts 260 through 265 of this chapter may assert a claim of business confidentiality covering part or all of that information by following the proce-

dures set forth in § 2.203(b) of this chapter. Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Part 2, Subpart B of this chapter. However, if no such claim accompanies the information when it is received by EPA, it may be made available to the public without further notice to the person submitting it.

§ 260.3 Use of number and gender.

As used in Parts 260 through 265 of this chapter:

(a) Words in the masculine gender also include the feminine and neuter genders; and

(b) Words in the singular include the plural; and

(c) Words in the plural include the singular.

Subpart B—Definitions

§ 260.10 Definitions.

When used in Parts 260 through 265 of this chapter, the following terms have the meanings given below:

"Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901 et seq.

"Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after the effective date of Part 261 of this chapter and which is not a closed portion. (See also "closed portion" and "inactive portion".)

"Administrator" means the Administrator of the Environmental Protection Agency, or his designee.

"Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

"Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility.

"Certification" means a statement of professional opinion based upon knowledge and belief.

"Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

"Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

"Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

"Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

"Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of 40 CFR Parts 270 and 271 of this chapter, or a permit from a State authorized in accordance with Part 271 of this chapter, that has been designated on the manifest by the generator pursuant to § 262.20.

"Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

"Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged

into any waters, including ground waters.

"Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

"Elementary neutralization unit" means a device which:

(1) Is used for neutralizing wastes which are hazardous wastes only because they exhibit the corrosivity characteristic defined in § 261.22 of this chapter, or are listed in Subpart D of Part 261 of this chapter only for this reason; and,

(2) Meets the definition of tank, container, transport vehicle, or vessel in § 260.10 of this chapter.

"EPA hazardous waste number" means the number assigned by EPA to each hazardous waste listed in Part 261, Subpart D, of this chapter and to each characteristic identified in Part 261, Subpart C, of this chapter.

"EPA identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

"EPA region" means the states and territories found in any one of the following ten regions:

Region I—Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

Region II—New York, New Jersey, Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

Region III—Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.

Region IV—Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.

Region V—Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio.

Region VI—New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.

Region VII—Nebraska, Kansas, Missouri, and Iowa.

Region VIII—Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.

Region IX—California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.

Region X—Washington, Oregon, Idaho, and Alaska.

"Equivalent method" means any testing or analytical method approved

by the Administrator under §§ 260.20 and 260.21.

"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. A facility has commenced construction if:

(1) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(2)(i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the facility to be completed within a reasonable time.

"Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

"Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

"Federal agency" means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

"Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

"Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

"Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

"Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.

"Ground water" means water below the land surface in a zone of saturation.

"Hazardous waste" means a hazardous waste as defined in § 261.3 of this chapter.

"Hazardous waste constituent" means a constituent that caused the Administrator to list the hazardous waste in Part 261, Subpart D, of this chapter, or a constituent listed in Table 1 of § 261.24 of this chapter.

"Inactive portion" means that portion of a facility which is not operated after the effective date of Part 261 of this chapter. (See also "active portion" and "closed portion".)

"Incinerator" means an enclosed device using controlled flame combustion, the primary purpose of which is to thermally break down hazardous waste. Examples of incinerators are rotary kiln, fluidized bed, and liquid injection incinerators.

"Incompatible waste" means a hazardous waste which is unsuitable for:

(1) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(2) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(See Part 265, Appendix V, of this chapter for examples.)

"Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or in-

dividual generation site if the site or property is contiguous.

"In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

"Injection well" means a well into which fluids are injected. (See also "underground injection".)

"Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

"International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

"Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

"Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

"Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

"Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

"Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

"Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

"Manifest" means the shipping document EPA form 8700-22 and, if necessary, EPA form 8700-22A, originated and signed by the generator in accordance with the instructions included in the Appendix to Part 262.

"Manifest document number" means the U.S. EPA twelve digit identification number assigned to the generator plus a unique five digit document number assigned to the Manifest by the generator for recording and reporting purposes.

"Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

"Movement" means that hazardous waste transported to a facility in an individual vehicle.

"New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced after October 21, 1976. (See also "Existing hazardous waste management facility".)

"On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

"Open burning" means the combustion of any material without the following characteristics:

(1) Control of combustion air to maintain adequate temperature for efficient combustion,

(2) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and

(3) Control of emission of the gaseous combustion products.

(See also "incineration" and "thermal treatment".)

"Operator" means the person responsible for the overall operation of a facility.

"Owner" means the person who owns a facility or part of a facility.

"Partial closure" means the closure of a discrete part of a facility in accordance with the applicable closure requirements of Parts 264 or 265 of

this chapter. For example, partial closure may include the closure of a trench, a unit operation, a landfill cell, or a pit, while other parts of the same facility continue in operation or will be placed in operation in the future.

"Person" means an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

"Personnel" or "facility personnel" means all persons who work, at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Parts 264 or 265 of this chapter.

"Pile" means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage.

"Point source" means any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Publicly owned treatment works" or "POTW" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality" (as defined by Section 502(4) of the CWA). This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

"Regional Administrator" means the Regional Administrator for the EPA Region in which the facility is located, or his designee.

"Representative sample" means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole.

"Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

"Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

"Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

"Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

"Solid waste" means a solid waste as defined in § 261.2 of this chapter.

"State" means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

"Storage" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

"Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

"Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration,

molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. (See also "incinerator" and "open burning".)

"Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

"Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

"Transportation" means the movement of hazardous waste by air, rail, highway, or water.

"Transporter" means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

"Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

"Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than

the largest surface dimension. (See also "injection well".)

"Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

"United States" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

"Wastewater treatment unit" means a device which:

(1) Is part of a wastewater treatment facility which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act; and

(2) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in § 261.3 of this chapter, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter; and

(3) Meets the definition of tank in § 260.10 of this chapter.

"Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

"Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

"Well injection": (See "underground injection".)

(45 FR 33073, May 19, 1980, as amended at 45 FR 72028, Oct. 30, 1980; 45 FR 76075, Nov. 17, 1980; 45 FR 76630, Nov. 19, 1980; 45 FR 86968, Dec. 31, 1980; 46 FR 2348, Jan. 9, 1981; 46 FR 27476, May 20, 1981; 47 FR 32349, July 26, 1982; 48 FR 2511, Jan. 16,

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1983; 48 FR 14293, Apr. 1, 1983; 49 FR 10500, Mar. 20, 1984.

EFFECTIVE DATE NOTE: At 49 FR 10500, Mar. 20, 1984, § 260.10 was amended by revising the definitions of "Manifest" and "Manifest document number", effective September 20, 1984. For the convenience of the user, the superseded text is set out below.

§ 260.10 Definitions.

"Manifest" means the shipping document originated and signed by the generator which contains the information required by Part 262, Subpart B, of this chapter.

"Manifest document number" means the serially increasing number assigned to the manifest by the generator for recording and reporting purposes.

§ 260.11 References.

(a) When used in Parts 260 through 265 of this chapter, the following publications are incorporated by reference:

"ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," ASTM Standard D-3278-78, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

"ASTM Standard Test Methods for Flash Point by Pensky-Martens Closed Tester," ASTM Standard D-93-79 or D-93-80, D-93-80 is available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

"Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (First Edition, 1980, as updated by Revisions A (August, 1980), B (July, 1981), and C (February, 1982)) or (Second Edition, 1982). The first edition of SW-846 is no longer in print. Revisions A and B are available from EPA, Office of Solid Waste, (WH-565B), 401 M Street, S.W., Washington, D.C. 20460. Revision C is available from NTIS, 5285 Port Royal Road, Springfield,

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Virginia 22161. The second edition of SW-846 includes material from the first edition and Revisions A, B, and C in a reorganized format. It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238, on a subscription basis, and future updates will automatically be mailed to the subscriber.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, NW, Washington, D.C. 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the FEDERAL REGISTER.

[46 FR 35247, July 7, 1981, as amended at 47 FR 41563, Sept. 21, 1982]

Subpart C—Rulemaking Petitions

§ 260.20 General.

(a) Any person may petition the Administrator to modify or revoke any provision in Parts 260 through 265 of this chapter. This section sets forth general requirements which apply to all such petitions. Section 260.21 sets forth additional requirements for petitions to add a testing or analytical method to Part 261, 264 or 265. Section 260.22 sets forth additional requirements for petitions to exclude a waste at a particular facility from § 261.3 of this chapter or the lists of hazardous wastes in Subpart D of Part 261.

(b) Each petition must be submitted to the Administrator by certified mail and must include:

- (1) The petitioner's name and address;
- (2) A statement of the petitioner's interest in the proposed action;
- (3) A description of the proposed action, including (where appropriate) suggested regulatory language; and
- (4) A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

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(c) The Administrator will make a tentative decision to grant or deny a petition and will publish notice of such tentative decision, either in the form of an advanced notice of proposed rulemaking, a proposed rule, or a tentative determination to deny the petition, in the FEDERAL REGISTER for written public comment.

(d) Upon the written request of any interested person, the Administrator may, at his discretion, hold an informal public hearing to consider oral comments on the tentative decision. A person requesting a hearing must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The Administrator may in any case decide on his own motion to hold an informal public hearing.

(e) After evaluating all public comments the Administrator will make a final decision by publishing in the FEDERAL REGISTER a regulatory amendment or a denial of the petition.

§ 260.21 Petitions for equivalent testing or analytical methods.

(a) Any person seeking to add a testing or analytical method to Part 261, 264, or 265 of this chapter may petition for a regulatory amendment under this section and § 260.20. To be successful, the person must demonstrate to the satisfaction of the Administrator that the proposed method is equal to or superior to the corresponding method prescribed in Part 261, 264, or 265 of this chapter, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

(b) Each petition must include, in addition to the information required by § 260.20(b):

- (1) A full description of the proposed method, including all procedural steps and equipment used in the method;
- (2) A description of the types of wastes or waste matrices for which the proposed method may be used;
- (3) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in Part 261, 264, or 265 of this chapter;

(4) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and

(5) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent method, the Administrator may request any additional information on the proposed method which he may reasonably require to evaluate the method.

(d) If the Administrator amends the regulations to permit use of a new testing method, the method will be incorporated in "Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460.

[Comment: This manual will be provided to any person on request, and will be available for inspection or copying at EPA headquarters or any EPA Regional Office.]

§ 260.22 Petitions to amend Part 261 to exclude a waste produced at a particular facility.

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in Subpart D of Part 261 may petition for a regulatory amendment under this section and § 260.20. To be successful, the petitioner must demonstrate to the satisfaction of the Administrator that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous waste and, in the case of an acutely hazardous waste listed under § 261.11(a)(2), that it also does not meet the criterion of § 261.11(a)(3). A waste which is so excluded may still, however, be a hazardous waste by operation of Subpart C of Part 261.

(b) The procedures in this section and § 260.20 may also be used to petition the Administrator for a regulatory amendment to exclude from § 261.3(a)(2)(ii) or (c), a waste which is described in those sections and is either a waste listed in Subpart D, contains a waste listed in Subpart D, or is derived from a waste listed in

Subpart D. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner must make the same demonstration as required by paragraph (a) of this section, except that where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration may be made with respect to each constituent listed waste or the waste mixture as a whole. A waste which is so excluded may still be a hazardous waste by operation of Subpart C of Part 261.

(c) If the waste is listed with codes "I", "C", "R", or "E" in Subpart D, the petitioner must show that demonstration samples of the waste do not exhibit the relevant characteristic defined in § 261.21, § 261.22, § 261.23, or § 261.24 using any applicable test methods prescribed therein.

(d) If the waste is listed with code "T" in Subpart D, the petitioner must demonstrate that:

(1) Demonstration samples of the waste do not contain the constituent (as defined in Appendix VII) that caused the Administrator to list the waste, using the appropriate test methods prescribed in Appendix III; or

(2) The waste does not meet the criterion of § 261.11(a)(3) when considering the factors in § 261.11(a)(3) (i) through (xi).

(e) If the waste is listed with the code "H" in Subpart D, the petitioner must demonstrate that the waste does not meet both of the following criteria:

(1) The criterion of § 261.11(a)(2).

(2) The criterion of § 261.11(a)(3) when considering the factors listed in § 261.11(a)(3) (i) through (xi).

(f) [Reserved for listing radioactive wastes.]

(g) [Reserved for listed infectious wastes.]

(h) Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition must include, in addition to the information required by § 260.20(b):

(1) The name and address of the laboratory facility performing the sampling or tests of the waste;

(2) The names and qualifications of the persons sampling and testing the waste;

(3) The dates of sampling and testing;

(4) The location of the generating facility;

(5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(7) Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in § 261.11(a)(3);

(8) A description of the methodologies and equipment used to obtain the representative samples;

(9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(10) A description of the tests performed (including results);

(11) The names and model numbers of the instruments used in performing the tests; and

(12) The following statement signed by the generator of the waste or his authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(j) After receiving a petition for an exclusion, the Administrator may re-

quest any additional information which he may reasonably require to evaluate the petition.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

(l) The Administrator may exclude only part of the waste for which the demonstration is submitted where he has reason to believe that variability of the waste justifies a partial exclusion.

(m) The Administrator may (but shall not be required to) grant a temporary exclusion before making a final decision under § 260.20(d) whenever he finds that there is a substantial likelihood that an exclusion will be finally granted. The Administrator will publish notice of any such temporary exclusion in the FEDERAL REGISTER.

APPENDIX I—OVERVIEW OF SUBTITLE C REGULATIONS

The Agency believes that there are many people who suspect, but are not sure, that their activities are subject to control under the RCRA Subtitle C rules. This appendix is written for these people. It is designed to help those who are unfamiliar with the hazardous waste control program to determine with which, if any, of the regulations they should comply.

Definition of Solid Waste

The first question which such a person should ask himself is: "Is the material I handle a solid waste?" If the answer to this question is "No", then the material is not subject to control under RCRA and, therefore, the person need not worry about whether he should comply with the Subtitle C rules.

Section 261.2 of this chapter provides a definition of "solid waste" which expands the statutory definition of that term given in section 1004(27) of RCRA. This definition is diagrammed in Figure 1 below.

Figure 1 explains that all materials are either: (1) Garbage refuse, or sludge; (2) solid, liquid, semi-solid or contained gaseous material; or (3) something else. No materials in the third category are solid waste. All materials in the first category are solid waste. Materials in the second category are solid waste unless they are one of the five exclusions specified in § 261.4(a).

Definition of Hazardous Waste

If a person has determined that his material is a "solid waste", the next question he should ask is: "Is the solid waste I handle a hazardous waste?"

Hazardous waste is defined in § 261.3 of this chapter. Section 261.3 provides that, in general, a solid waste is a hazardous waste if: (1) It is, or contains, a hazardous waste listed in Subpart D of Part 261 of this chapter, or (2) the waste exhibits any of the characteristics defined in Subpart C of Part 261. However, Parts 260 and 261 also contain provisions which exclude (§§ 261.4(b), 260.20, and 260.22) certain solid wastes from the definition of "hazardous waste", even though they are listed in Subpart D or exhibit one or more of the characteristics defined in Subpart C. Figure 2 depicts the interplay of these special provisions with the definition of "hazardous waste". It presents a series of questions which a person should ask himself concerning his waste. After doing so, the person should be able to determine if the solid waste he handles is a hazardous waste.

Hazardous Waste Regulations

If this is the case, the person should look at Figure 3. Figure 3 depicts the special provisions specified in the final Part 261 rules for hazardous waste which:

1. Is generated by a small quantity generator
2. Is or is intended to be legitimately and beneficially used, re-used, recycled, or reclaimed
3. Is a sludge; is listed in Part 261, Subpart D; or is a mixture containing a waste listed in Part 261, Subpart D.

For each of these Groups, Figure 3 indicates with which Subtitle C regulations (if any) the person handling these wastes must comply. Figure 3 also explains that, if a person handles hazardous waste which is not included in any one of the above three categories, his waste is subject to the Subtitle C regulations diagrammed in Figure 4.

Figure 4 is a flowchart which identifies the three categories of activities regulated under the Subtitle C rules, and the corresponding set of rules with which people in each of these categories must comply. It points out that all people who handle hazardous waste are either: (1) Generators of hazardous waste, (2) transporters of hazardous waste, (3) owners or operators of hazardous waste treatment, storage, or disposal facilities, or (4) a combination of the above. Figure 4 indicates that all of these people must notify EPA of their hazardous waste activities in accordance with the Section 3010 Notification Procedures (see 45 FR 12746 *et seq.*), and obtain an EPA identification number.

It should be noted that people handling wastes listed in Subpart D of Part 261 who have filed, or who intend to file an application to exempt their waste from regulation under the Subtitle C rules, must also comply with the notification requirements of section 3010.

If a person generates hazardous waste, Figure 4 indicates that he must comply with the Part 262 rules. If he transports it, he must comply with the Part 263 rules. The standards in both these Parts are designed to ensure, among other things, proper recordkeeping and reporting, the use of a manifest system to track shipments of hazardous waste, the use of proper labels and containers, and the delivery of the waste to a permitted treatment, storage, or disposal facility.

If a person owns or operates a facility which treats, stores, or disposes of hazardous waste, the standards with which he must comply depend on a number of factors. First of all, if the owner or operator of a storage facility is also the person who generates the waste, and the waste is stored at the facility for less than 90 days for subsequent shipment off-site, then the person must comply with § 262.34 of the Part 262 rules.

All other owners or operators of treatment, storage, or disposal facilities must comply with either the Part 264 or the Part 265 rules. To determine with which of these sets of rules an owner or operator must comply, he must find out whether his facility qualifies for interim status. To qualify, the owner or operator must: (1) Have been treating, storing, or disposing of the hazardous waste, or commenced facility construc-

tion on or before October 21, 1976, (2) comply with the Section 3010 notification requirements, and (3) apply for a permit under Part 270 of this chapter.

If the owner or operator has done all of the above, he qualifies for interim status, and he must comply with the Part 265 rules. These rules contain administrative requirements, monitoring and closure standards, and an abbreviated set of technical and closure and post-closure cost estimate requirements. The owner or operator must comply with these standards until final administrative disposition of his permit application is made. If a permit is issued to the owner or operator, he must then comply with the permit which will be based on the Part 264 rules.

If the owner or operator has not carried out the above three requirements, he does not qualify for interim status. Until he is issued a permit for his facility, the owner or operator must stop waste management operations (if any) at the facility, and send his hazardous waste (if any) to a facility whose owner or operator has interim status or to a storage facility following the Part 262 rules.

In order to apply for a permit, the owner or operator must comply with the procedures specified in Part 270 of this chapter.

It should be noted that the Agency will be periodically revising the rules depicted in Figures 3 and 4. All persons are encouraged to write to EPA to verify that the regulations which they are reading are up-to-date. To obtain this verification, contact: Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair Street, Cincinnati, Ohio 45268 (513) 684-5362.

FIGURE 1
DEFINITION OF A SOLID WASTE

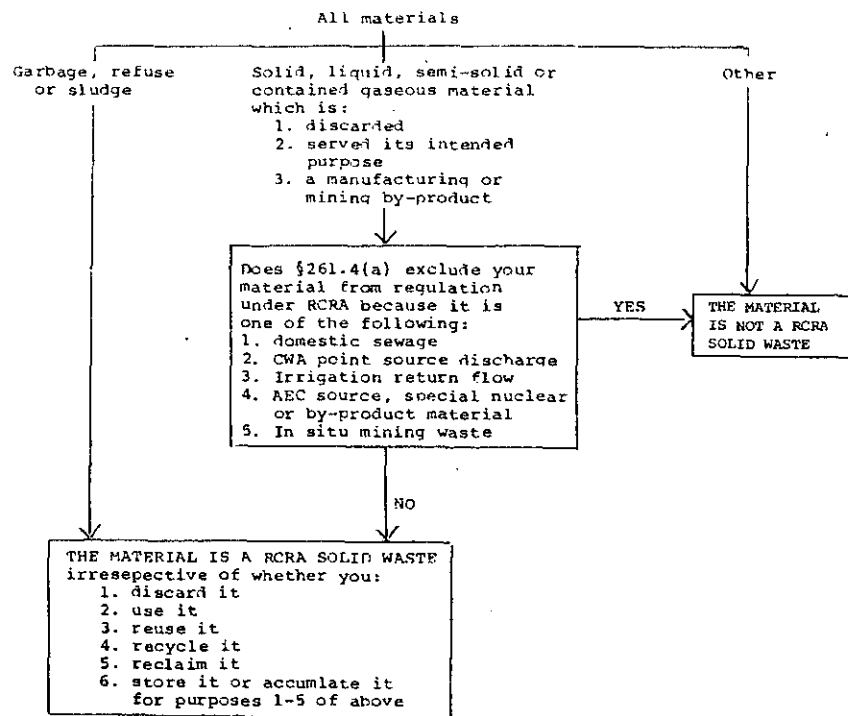


FIGURE 2

DEFINITION OF A HAZARDOUS WASTE

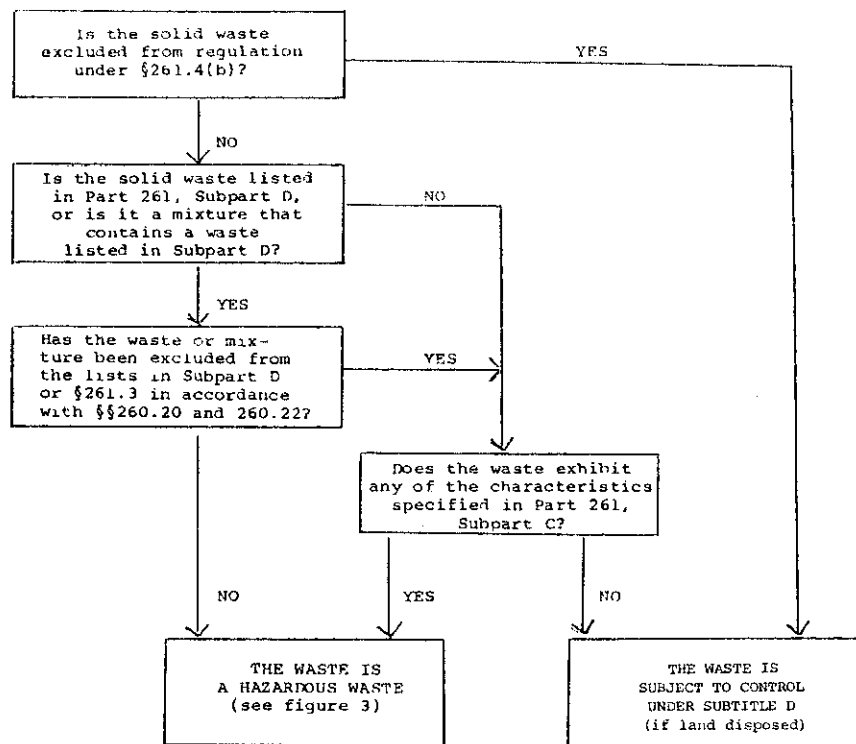


FIGURE 3

SPECIAL PROVISIONS FOR CERTAIN HAZARDOUS WASTE

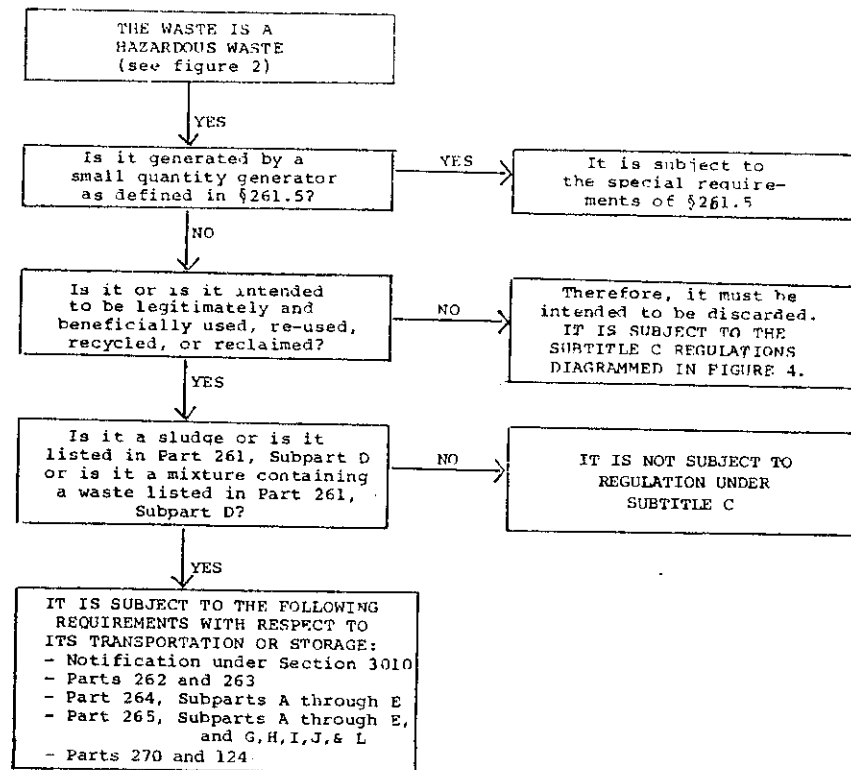
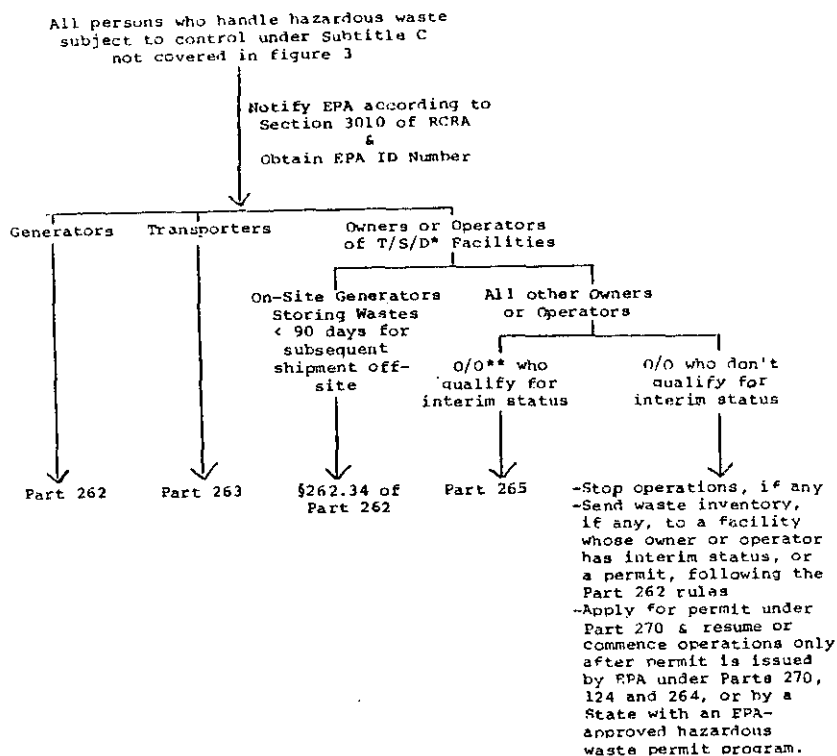


FIGURE 4

REGULATIONS FOR HAZARDOUS WASTE
NOT COVERED IN DIAGRAM 3



* T/S/D stands for Treatment, Storage, or Disposal

** O/O stands for Owners or Operators

[45 FR 33073, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983]

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A—General

Sec.

- 261.1 Purpose and scope.
- 261.2 Definition of solid waste.
- 261.3 Definition of hazardous waste.
- 261.4 Exclusions.
- 261.5 Special requirements for hazardous waste generated by small quantity generators.
- 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.
- 261.7 Residues of hazardous waste in empty containers.

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Wastes

- 261.10 Criteria for identifying the characteristics of hazardous waste.
- 261.11 Criteria for listing hazardous waste.

Subpart C—Characteristics of Hazardous Waste

- 261.20 General.
- 261.21 Characteristic of ignitability.
- 261.22 Characteristic of corrosivity.
- 261.23 Characteristic of reactivity.
- 261.24 Characteristic of EP toxicity.

Subpart D—Lists of Hazardous Wastes

- 261.30 General.
- 261.31 Hazardous wastes from non-specific sources.
- 261.32 Hazardous wastes from specific sources.
- 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

APPENDICES

- APPENDIX I—REPRESENTATIVE SAMPLING METHODS
- APPENDIX II—EP TOXICITY TEST PROCEDURES
- APPENDIX III—CHEMICAL ANALYSIS TEST METHODS
- APPENDIX IV—[RESERVED FOR RADIOACTIVE WASTE TEST METHODS]
- APPENDIX V—[RESERVED FOR INFECTIOUS WASTE TREATMENT SPECIFICATIONS]
- APPENDIX VI—[RESERVED FOR ETIOLOGIC AGENTS]
- APPENDIX VII—BASIS FOR LISTING HAZARDOUS WASTE
- APPENDIX VIII—HAZARDOUS CONSTITUENTS

AUTHORITY: Secs. 1006, 2002(a), 3001 and 3002 of the Solid Waste Disposal Act, as

amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6921, and 6922).

SOURCE: 45 FR 33119, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 261.1 Purpose and scope.

(a) This part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265 and Parts 270, 271, and 124 of this chapter and which are subject to the notification requirements of section 3010 of RCRA. In this part:

(1) Subpart A defines the terms "solid waste" and "hazardous waste," identifies those wastes which are excluded from regulation under Parts 262 through 265, 270, 271 and 124 and establishes special management requirements for hazardous waste produced by small quantity generators and hazardous waste which is used, re-used, recycled or reclaimed.

(2) Subpart B sets forth the criteria used by EPA to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Subpart C identifies characteristics of hazardous waste.

(4) Subpart D lists particular hazardous wastes.

(b) This part identifies only some of the materials which are hazardous wastes under sections 3007 and 7003 of RCRA. A material which is not a hazardous waste identified in this part is still a hazardous waste for purposes of those sections if:

(1) In the case of section 3007, EPA has reason to believe that the material may be a hazardous waste within the meaning of section 1004(5) of RCRA.

(2) In the case of section 7003, the statutory elements are established.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983]

§ 261.2 Definition of solid waste.

(a) A solid waste is any garbage, refuse, sludge or any other waste material which is not excluded under § 261.4(a).

(b) An "other waste material" is any solid, liquid, semi-solid or contained

gaseous material, resulting from industrial, commercial, mining or agricultural operations, or from community activities which:

(1) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded; or

(2) Has served its original intended use and sometimes is discarded; or

(3) Is a manufacturing or mining by-product and sometimes is discarded.

(c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:

(1) Disposed of; or

(2) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or

(3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.

(d) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.

(e) A "manufacturing or mining by-product" is a material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which results from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(ii) It is listed in Subpart D and has not been excluded from the lists in Subpart D under §§ 260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under §§ 260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes (except by application of paragraph (a)(2)(i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and:

(A) One or more of the following spent solvents listed in § 261.31—carbon tetrachloride, tetrachloroethylene, trichloroethylene—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 1 part per million; or

(B) One or more of the following spent solvents listed in § 261.31—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divid-

ed by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in § 261.32—heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

(D) A discarded commercial chemical product, or chemical intermediate listed in § 261.33, arising from *de minimis* losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, "de minimis" losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D, when the waste first meets

the listing description set forth in Subpart D.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in Subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

(c) Unless and until it meets the criteria of paragraph (d):

(1) A hazardous waste will remain a hazardous waste.

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off) is a hazardous waste.

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC codes 331 and 332).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

(2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this chapter.

[45 FR 33119, May 19, 1980, as amended at 46 FR 56588, Nov. 11, 1981; 49 FR 23287, June 5, 1984]

EFFECTIVE DATE NOTE: At 49 FR 23287, June 5, 1984, § 261.3(c)(2) was revised, effective December 5, 1984. For the convenience of the user, the superseded text is set out below:

§ 261.3 Definition of hazardous waste.

(c) * * *

(2) Any solid waste generated from the treatment, storage or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off), is a hazardous waste.

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this part:

(1)(i) Domestic sewage; and
 (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act, as amended.

[*Comment:* This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.
 (4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels.)

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes which fail the test for the characteristic of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in paragraphs (b)(6)(i)(A), (B) and (C) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing in-

dustry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome-tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore.

(8) Cement kiln dust waste.

(9) Solid waste which consists of discarded wood or wood products which fails the test for the characteristic of EP toxicity and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material storage vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265, 270, 271 and 124 of this chapter or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d) *Samples.* (1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or Parts 262 through 267 or Part 270 or Part 124 of this chapter or to the notification requirements of Section 3010 of RCRA, when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(2) In order to qualify for the exemption in paragraphs (d)(1) (i) and (ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the following information accompanies the sample:

(1) The sample collector's name, mailing address, and telephone number;

(2) The laboratory's name, mailing address, and telephone number;

(3) The quantity of the sample;

(4) The date of shipment; and

(5) A description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in paragraph (d)(1) of this section.

145 FR 33119, May 19, 1980, as amended at 45 FR 72037, Oct. 30, 1980; 45 FR 76620, Nov. 19, 1980; 45 FR 78531, Nov. 25, 1980; 45 FR 80287, Dec. 4, 1980; 46 FR 27476, May 29, 1981; 46 FR 47429, Sept. 25, 1981; 46 FR 14293, Apr. 1, 1983; 48 FR 30115, June 30, 1983

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(a) A generator is a small quantity generator in a calendar month if he generates less than 1000 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e) and (f) of this section, a small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA, provided the generator complies with the requirements of paragraph (g) of this section.

(c) Hazardous waste that is beneficially used or re-used or legitimately recycled or reclaimed and that is excluded from regulation by § 261.6(a) is not included in the quantity determi-

nations of this section, and is not subject to any requirements of this section. Hazardous waste that is subject to the special requirements of § 261.6(b) is included in the quantity determinations of this section and is subject to the requirements of this section.

(d) In determining the quantity of hazardous waste he generates, a generator need not include:

(1) His hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by on-site treatment of his hazardous waste.

(e) If a small quantity generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA:

(1) A total of one kilogram of commercial chemical products and manufacturing chemical intermediates having the generic names listed in § 261.33(e), and off-specification commercial chemical products and manufacturing chemical intermediates which, if they met specifications, would have the generic names listed in § 261.33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, water or other debris resulting from the clean-up of a spill, into or on any land or water, of any commercial chemical products or manufacturing chemical intermediates having the generic names listed in § 261.33(e), or any residue or contaminated soil, water or other debris resulting from the clean-up of a spill, into or on any land or water, of any off-specification commercial chemical products or manufacturing chemical intermediates which, if they met specifications, would have the generic names listed in § 261.33(e).

(f) A small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous waste, or his acutely hazardous wastes in quantities greater than set forth in paragraph (e)(1) or (e)(2) of this section, all of those accumulated wastes for which the accumulation

limit was exceeded are subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA. The time period of § 262.34 for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the applicable exclusion level.

(g) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under this section, the generator must:

(1) Comply with § 262.11 of this chapter;

(2) If he stores his hazardous waste on-site, store it in compliance with the requirements of paragraph (f) of this section; and

(3) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(i) Permitted under Part 270 of this chapter;

(ii) In interim status under Parts 270 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 271 of this chapter;

(iv) Permitted, licensed or registered by a State to manage municipal or industrial solid waste; or

(v) A facility which:

(A) Beneficially uses or re-uses, or legitimately recycles or reclaims his waste; or

(B) Treats his waste prior to beneficial use or re-use, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.

(i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.

145 FR 76623, Nov. 19, 1980, as amended at 46 FR 27476, May 20, 1981; 46 FR 34587, July 2, 1981; 48 FR 14294, Apr. 1, 1983

§ 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

(a) Except as otherwise provided in paragraph (b) of this section, a hazardous waste which meets any of the following criteria is not subject to regulation under Parts 262 through 265 or Parts 270, 271, and 124 of this Chapter and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Administrator promulgates regulations to the contrary:

(1) It is being beneficially used or re-used or legitimately recycled or reclaimed.

(2) It is being accumulated, stored or physically, chemically or biologically treated prior to beneficial use or re-use or legitimate recycling or reclamation.

(3) It is one of the following materials being used, re-used, recycled or reclaimed in the specified manner:

(i) Spent pickle liquor which is reused in wastewater treatment at a facility holding a National Pollutant Discharge Elimination System (NPDES) permit, or which is being accumulated, stored, or physically, chemically or biologically treated before such reuse.

(b) Except for those wastes listed in paragraph (a)(3) of this section, a hazardous waste that is a sludge, or that is listed in § 261.31 or § 261.32, or that contains one or more hazardous wastes listed in § 261.31 or § 261.32; and that is transported or stored prior to being used, re-used, recycled, or reclaimed is subject to the following requirements with respect to such transportation or storage:

(1) Notification requirements under Section 3010 RCRA.

(2) Part 262 of this chapter.

(3) Part 263 of this chapter.

(4) Applicable provisions of Subparts A through L of Part 264 of this chapter;

(5) Applicable provisions of Subparts A through L of Part 265 of this chapter

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(6) Parts 270 and 124 of this chapter, with respect to storage facilities.

[45 FR 33119, May 19, 1980, as amended at 46 FR 44973, Sept. 8, 1981; 48 FR 2532, Jan. 20, 1983; 48 FR 14294, Apr. 1, 1983]

§ 261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under Parts 261 through 265, or Part 270 or 124 of this chapter or to the notification requirements of Section 3010 of RCRA.

(2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under Parts 261 through 265, and Parts 270 and 124 of this chapter and to the notification requirements of Section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified in § 261.33(c) of this chapter, is empty if:

(i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

(ii) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or

(iii)(A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held

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a hazardous waste identified in § 261.33(c) of this chapter is empty if:

(i) the container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) in the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

[45 FR 78529, Nov. 25, 1980, as amended at 47 FR 36097, Aug. 18, 1982; 48 FR 14294, Apr. 1, 1983]

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

§ 261.10 Criteria for identifying the characteristics of hazardous waste.

(a) The Administrator shall identify and define a characteristic of hazardous waste in Subpart C only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

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§ 261.11 Criteria for listing hazardous waste.

(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Administrator concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § 261.5(c).

Subpart C—Characteristics of Hazardous Waste

§ 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this Subpart.

[Comment: § 262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this Subpart]

(b) A hazardous waste which is identified by a characteristic in this subpart, but is not listed as a hazardous

waste in Subpart D, is assigned the EPA Hazardous Waste Number set forth in the respective characteristic in this Subpart. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 270 of this chapter.

(c) For purposes of this Subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this chapter.

[Comment: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see § 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§ 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent

test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

§ 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21. The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11) or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.

(b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

§ 261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D003.

§ 261.24 Characteristic of EP toxicity.

(a) A solid waste exhibits the characteristic of EP toxicity if, using the test methods described in Appendix II or equivalent methods approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21, the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section.

(b) A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

TABLE I—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY

EPA Hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano-naphthalene)	0.02
D013	Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenyl)ethane)	10.0
D015	Toxaphene (C ₁₂ H ₁₆ Cl ₄ , Technical chlorinated camphene, 67-69 percent chlorine)	0.5
D016	2,4-D, (2,4-Dichlorophenoxyacetic acid)	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	1.0

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
EP Toxic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Haz-

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ardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain record-keeping and reporting requirements under Parts 262 through 265 and Part 270 of this chapter.

(d) The following hazardous wastes listed in § 261.31 or § 261.32 are subject to the exclusion limits for acutely hazardous wastes established in § 261.5: [Reserved]

[45 FR 33119, May 19, 1980, as amended at 45 FR 74892, Nov. 12, 1980; 48 FR 14294, Apr. 1, 1983]

§ 261.31 Hazardous wastes from non-specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
General:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane; and the still bottoms from the recovery of these solvents.	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents.	(I)
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; and the still bottoms from the recovery of these solvents.	(T)
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; and the still bottoms from the recovery of these solvents.	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions).	(R, T)
F008	Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process (except for precious metals electroplating plating bath sludges).	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions).	(R, T)
F010	Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process (except for precious metals heat-treating quenching bath sludges).	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning).	(R, T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process (except for precious metals heat treating quenching wastewater treatment sludges).	(T)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. [This listing does not include light ends, spent filters and filter aids, spent desiccants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.32.]	(T)

[46 FR 4617, Jan. 16, 1981, as amended at 46 FR 27477, May 20, 1981; 49 FR 5312, Feb. 10, 1984]

EFFECTIVE DATE NOTE: At 49 FR 5312, Feb. 10, 1984, the waste stream identified by EPA hazardous waste no. F024 was added to the table in § 261.31, effective August 10, 1984.

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§ 261.32 Hazardous wastes from specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments: K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals: K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene dithiocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K095	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
Inorganic chemicals: K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Pesticides: K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phosphate production	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Stop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (loaded) from the petroleum refining industry	(T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor from steel finishing operations	(C, T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K004	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation: K086		
	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)

[46 FR 4618, Jan. 16, 1981, as amended at 46 FR 27476-27477, May 20, 1981]

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic names listed in paragraph (e) of this section, or any container or inner liner removed from a container that has been used to hold any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) of this section, unless the container is empty as defined in § 261.7(b)(3) of this chapter.

[Comment: Unless the residue is being beneficially used or reused, or legitimately recy-

clered or reclaimed; or being accumulated, stored, transported or treated prior to such use, re use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this part.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in § 261.5(e).

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Substance
P023	Acetaldehyde, chloro-
P002	Acetamido, N-(aminothioxomethyl)-
P057	Acetamido, 2-fluoro-
P056	Acetic acid, fluoro-, sodium salt
P066	Acetimidic acid, N-[(methylcarbamoyloxy)thio-, methyl ester
P001	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations greater than 0.3%
P002	1-Acetyl-2-thiourea
P003	Acrolein
P070	Aldicarb
P004	Aldrin
P005	Allyl alcohol
P006	Aluminum phosphide
P007	5-(Aminomethyl)-3-isoxazolol
P068	4-aAminopyridine
P009	Ammonium picrate (R)
P119	Ammonium vanadate
P010	Arsenic acid
P012	Arsenic (III) oxide
P011	Arsenic (V) oxide
P011	Arsenic pentoxide
P012	Arsenic trioxide
P038	Arsine, diethyl-
P054	Aziridina
P013	Barium cyanide
P024	Banzenamine, 4-chloro-
P077	Benzenamine, 4-nitro-
P028	Benzene, (chloromethyl)-
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-
P014	Benzenethiol
P029	Benzyl chloride
P015	Beryllium dust
P016	Bis(chloromethyl) ether
P017	Bromoacetone
P018	Brucine
P021	Calcium cyanide
P123	Camphene, octachloro-
P103	Carbamimidoseleonic acid
P022	Carbon bisulfide
P022	Carbon disulfide
P095	Carbonyl chloride
P033	Chlorine cyanide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(o-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts), not elsewhere specified
P031	Cyanogen
P033	Cyanogen chloride
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine

Hazardous waste No.	Substance	Hazardous waste No.	Substance
P039	O,O-Diethyl S-(2-(ethylthio)ethyl) phosphoro dithioate	P074	Nickel(II) cyanide
P041	Diethyl-p-nitrophenyl phosphate	P073	Nickel tetracarbonyl
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	P075	Nicotine and salts
P043	Diisopropyl fluorophosphate	P076	Nitric oxide
P044	Dimethoate	P077	p-Nitroaniline
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	P078	Nitrogen dioxide
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	P076	Nitrogen(II) oxide
P082	Dimethylnitrosamine	P078	Nitrogen(IV) oxide
P046	alpha, alpha-Dimethylphenethylamine	P081	Nitroglycerine (R)
P047	4,6-Dinitro-o-cresol and salts	P082	N-Nitrosodimethylamine
P034	4,6-Dinitro-o-cyclohexylphenol	P084	N-Nitrosomethylvinylamine
P048	2,4-Dinitrophenol	P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfide
P020	Dinoseb	P085	Octamethylpyrophosphoramide
P035	Diphosphoramide, octamethyl-	P087	Osmium oxide
P039	Disulfoton	P087	Osmium tetroxide
P049	2,4-Dithioburet	P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P109	Dithiopyrophosphoric acid, tetraethyl ester	P089	Parathion
P050	Endosulfan	P034	Phenol, 2-cyclohexyl-4,6-dinitro-
P068	Endosulfat	P048	Phenol, 2,4-dinitro-
P051	Endrin	P047	Phenol, 2,4-dinitro-6-methyl-
P042	Epinephrine	P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-
P046	Ethanamine, 1,1-dimethyl-2-phenyl-	P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P084	Ethanamine, N-methyl-N-nitroso-	P036	Phenyl dichloroarsine
P101	Ethyl cyanide	P092	Phenylmercuric acetate
P054	Ethylontimine	P093	N-Phenylthiourea
P097	Famphur	P094	Phorate
P056	Fluorine	P095	Phosgene
P057	Fluorocetamide	P096	Phosphine
P058	Fluoroacetic acid, sodium salt	P041	Phosphoric acid, diethyl p-nitrophenyl ester
P065	Fulminic acid, mercury(II) salt (R,T)	P044	Phosphorodithioic acid, O,O-dimethyl S-(2-(methylamino)-2-oxoethyl)ester
P059	Heptachlor	P043	Phosphorofluoric acid, bis(1-methylethyl)-ester
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene	P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene	P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene	P097	Phosphorothioic acid, O,O-dimethyl O-[(di-methylamino)sulfonyl]phenyl ester
P060	Hexachlorocyclohexane, endo,exo-dimethanonaphthalene	P110	Plumbane, tetraethyl-
P062	Hexaethyl tetraphosphate	P098	Potassium cyanide
P116	Hydrazonecarbothioamide	P099	Potassium silver cyanide
P068	Hydrazine, methyl-	P070	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P063	Hydrocyanic acid	P101	Propanenitrile
P063	Hydrogen cyanide	P027	Propanenitrile, 3-chloro-
P096	Hydrogen phosphide	P069	Propanenitrile, 2-hydroxy-2-methyl-
P064	Isocyanic acid, methyl ester	P081	1,2,3-Propanetriol, trinitrate- (R)
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	P017	2-Propanone, 1-bromo-
P092	Mercury, (acetato-O)phenyl-	P102	Propargyl alcohol
P065	Mercury fulminate (R,T)	P003	2-Propenal
P016	Methane, oxybis(chloro-)	P005	2-Propen-1-ol
P112	Methane, tetranitro- (R)	P067	1,2-Propylenimine
P118	Methanethiol, trichloro-	P102	2-Propyn-1-ol
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	P008	4-Pyridinamine
P066	Methomyl	P075	Pyridine, (5)-(3-(1-methyl-2-pyrrolidinyl)-, and salts
P067	2-Methylaziridine	P111	Pyrophosphoric acid, tetraethyl ester
P068	Methyl hydrazine	P103	Selenourea
P084	Methyl isocyanate	P104	Silver cyanide
P069	2-Methylacetonitrile	P105	Sodium azide
P071	Methyl parathion	P106	Sodium cyanide
P072	alpha-Naphthylthiourea	P107	Strontium sulfide
P073	Nickel carbonyl	P108	Strychnidin-10-one, and salts
P074	Nickel cyanide	P018	Strychnidin-10-one, 2,3-dimethoxy-
		P108	Strychnine and salts
		P115	Sulfuric acid, thallium(I) salt
		P109	Tetraethylthiopyrophosphate

Hazardous waste No.	Substance	Hazardous Waste No.	Substance
P110	Tetraethyl lead	U006	Acetyl chloride (C,R,T)
P111	Tetraethylpyrophosphate	U007	Acrylamide
P112	Tetrahydrofuran (R)	U008	Acrylic acid (I)
P062	Tetraphosphoric acid, hexaethyl ester	U009	Acrylonitrile
F113	Thallic oxide	U150	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-
P113	Thallium(III) oxide	U011	Amitrole
P114	Thallium(I) selenite	U012	Aniline (I,T)
P115	Thallium(I) sulfate	U014	Auramine
P045	Thiofanox	U015	Azaserine
P049	Thioimidocarbonyl diamide	U010	Azuno(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-(((aminocarbonyl)oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-,
P014	Thiophenol	U157	Benz[1]aceanthrylene, 1,2-dihydro-3-methyl-
P116	Thiosemicarbazide	U016	Benz[c]acridine
P026	Thiourea, (2-chlorophenyl)-	U016	3,4-Benzacridine
P072	Thiourea, 1-naphthalenyl-	U017	Benz[e]chloride
P093	Thiourea, phenyl-	U018	Benz[a]anthracene
P123	Toxaphene	U018	1,2-Benzanthracene
P118	Trichloromethanechloride	U094	1,2-Benzanthracene, 7,12-dimethyl-
P119	Vanadic acid, ammonium salt	U012	Benzaniline (I,T)
P120	Vanadium pentoxide	U014	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
P120	Vanadium(V) oxide	U049	Benzenamine, 4-chloro-2-methyl-
P001	Warfarin, when present at concentrations greater than 0.3%	U093	Benzenamine, N,N'-dimethyl-4-phenylazo-
P121	Zinc cyanide	U158	Benzenamine, 4,4'-methylenebis(2-chloro-
P122	Zinc phosphide, when present at concentrations greater than 10%	U222	Benzenamine, 2-methyl-, hydrochloride
		U181	Benzenamine, 2-methyl-5-nitro
		U019	Benzene (I,T)
		U038	Benzeneacetic acid, 4-chloro-alpha-(4-chloro-phenyl)-alpha-hydroxy, ethyl ester
		U030	Benzene, 1-bromo-4-phenoxy-
		U037	Benzene, chloro-
		U190	1,2-Benzenedicarboxylic acid anhydride
		U028	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
		U069	1,2-Benzenedicarboxylic acid, dibutyl ester
		U088	1,2-Benzenedicarboxylic acid, diethyl ester
		U102	1,2-Benzenedicarboxylic acid, dimethyl ester
		U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester
		U070	Benzene, 1,2-dichloro-
		U071	Benzene, 1,3-dichloro-
		U072	Benzene, 1,4-dichloro-
		U017	Benzene, (dichloromethyl)-
		U223	Benzene, 1,3-diisocyanatomethyl-, (R,T)
		U239	Benzene, dimethyl-(I,T)
		U201	1,3-Benzenediol
		U127	Benzene, hexachloro-
		U056	Benzene, hexahydro- (I)
		U188	Benzene, hydroxy-
		U220	Benzene, methyl-
		U105	Benzene, 1-methyl-1,2,4-dinitro-
		U106	Benzene, 1-methyl-2,6-dinitro-
		U203	Benzene, 1,2-methylenedioxy-4-allyl-
		U141	Benzene, 1,2-methylenedioxy-4-propenyl-
		U090	Benzene, 1,2-methylenedioxy-4-propyl-
		U055	Benzene, (1-methylthio)- (I)
		U169	Benzene, nitro- (I,T)
		U183	Benzene, pentachloro-
		U185	Benzene, pentachloro-nitro-
		U020	Benzenesulfonic acid chloride (C,R)
		U020	Benzenesulfonfyl chloride (C,R)
		U207	Benzene, 1,2,4,5-tetrachloro-
		U023	Benzene, (methylmercapto)- (C,R,T)
		U234	Benzene, 1,3,5-trinitro- (R,T)
		U021	Benzidine
		U202	1,2-Benzisothiazolin-3-one, 1,1-dioxide
		U120	Benzo[k]fluorene
		U022	Benzo[a]pyrene
		U022	3,4-Benzopyrene
		U197	p-Benzquinone

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (f).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No.	Substance
U001	Acetaldehyde (I)
U034	Acetaldehyde, trichloro-
U187	Acetamide, N-(4-ethoxyphenyl)-
U005	Acetamide, N-9H-fluoren-2-yl-
U112	Acetic acid, ethyl ester (I)
U144	Acetic acid, lead salt
U214	Acetic acid, thallium(I) salt
U002	Acetone (I)
U003	Acetonitrile (I,T)
U248	3-(alpha-Acetoxybenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less
U004	Acetophenone
U005	2-Acetylaminofluorene

Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
U023	Benzotrifluoride (C,H,F)	U063	Dibenz(a,h)anthracene
U050	1,2-Benzophenanthrene	U063	1,2,5,6-Dibenzanthracene
U085	2,2'-Bioxirane (I,T)	U064	1,2,7,8-Dibenzopyrene
U021	(1,1'-Biphenyl)-4,4'-diamine	U064	Dibenz(f,a)pyrene
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	U066	1,2-Dibromo-3-chloropropane
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	U069	Dibutyl phthalate
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate
U024	Bis(2-chloroethoxy) methane	U070	o-Dichlorobenzene
U027	Bis(2-chloroisopropyl) ether	U071	m-Dichlorobenzene
U244	Bis(dimethylthiocarbamoyl) disulfide	U072	p-Dichlorobenzene
U028	Bis(2-ethylhexyl) phthalate	U073	3,3'-Dichlorobenzidine
U246	Bromine cyanide	U074	1,4-Dichloro-2-butene (I,T)
U225	Bromoforn	U075	Dichlorodifluoromethane
U030	4-Bromophenyl phenyl ether	U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide
U128	1,2-Butadiene, 1,1,2,3,4,4-hexachloro-	U060	Dichloro diphenyl dichloroethane
U172	1-Butanamine, N-butyl-N-nitroso-	U061	Dichloro diphenyl trichloroethane
U035	Butanoic acid, 4-[Bis(2-chloroethyl)amino] benzene-	U078	1,1-Dichloroethylene
U031	1-Butanol (I)	U079	1,2-Dichloroethylene
U159	2-Butanone (I,T)	U025	Dichloroethyl ether
U160	2-Butanone peroxide (R,T)	U081	2,4-Dichlorophenol
U053	2-Butenal	U082	2,6-Dichlorophenol
U074	2-Butene, 1,4-dichloro- (I,T)	U240	2,4-Dichlorophenoxyacetic acid, salts and esters
U031	n-Butyl alcohol (I)	U083	1,2-Dichloropropane
U136	Cacodylic acid	U084	1,3-Dichloropropane
U032	Calcium chromate	U085	1,2,3,4-Diepoxybutane (I,T)
U238	Carbamic acid, ethyl ester	U108	1,4-Diethylene dioxide
U178	Carbamic acid, methylnitroso-, ethyl ester	U086	N,N-Diethylhydrazine
U176	Carbamide, N-ethyl-N-nitroso-	U087	O,O-Diethyl-S-methyl-dithiophosphate
U177	Carbamide, N-methyl-N-nitroso-	U088	Diethyl phthalate
U219	Carbamide, thio-	U089	Diethylstilbestrol
U097	Carbamoyl chloride, dimethyl-	U148	1,2-Dihydro-3,6-pyridazinone
U215	Carbonic acid, dithalium(I) salt	U090	Dihydrosoafrole
U156	Carbonochloric acid, methyl ester (I,T)	U091	3,3'-Dimethoxybenzidine
U033	Carbon oxyfluoride (R,T)	U092	Dimethylamine (I)
U211	Carbon tetrachloride	U093	Dimethylaminoazobenzene
U033	Carbonyl fluoride (R,T)	U094	7,12-Dimethylbenz(a)anthracene
U034	Chloral	U095	3,3'-Dimethylbenzidine
U035	Chlorambucil	U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U036	Chlorodane, technical	U097	Dimethylcarbamoyl chloride
U026	Chloronaphazene	U098	1,1-Dimethylhydrazine
U037	Chlorobenzene	U099	1,2-Dimethylhydrazine
U039	4-Chloro-m-cresol	U101	2,4-Dimethylphenol
U041	1-Chloro-2,3-epoxypropene	U102	Dimethyl phthalate
U042	2-Chloroethyl vinyl ether	U103	Dimethyl sulfate
U044	Chloroform	U105	2,4-Dinitrotoluene
U046	Chloromethyl methyl ether	U106	2,6-Dinitrotoluene
U047	beta-Chloronaphthalene	U107	Di-n-octyl phthalate
U048	o-Chlorophenol	U108	1,4-Dioxane
U049	4-Chloro-o-toluidine, hydrochloride	U109	1,2-Diphenylhydrazine
U032	Chromic acid, calcium salt	U110	Dipropylamine (I)
U050	Chrysene	U111	Di-N-propylnitrosamine
U051	Croosote	U001	Ethanal (I)
U052	Cresols	U174	Ethanamine, N-ethyl-N-nitroso-
U052	Cresylic acid	U067	Ethane, 1,2-dibromo-
U053	Crotonaldehyde	U076	Ethane, 1,1-dichloro-
U055	Cumene (I)	U077	Ethane, 1,2-dichloro-
U246	Cyanogen bromide	U114	1,2-Ethanedithylisocarbamodithioic acid
U197	1,4-Cyclohexadienedione	U131	Ethane, 1,1,1,2,2,2-hexachloro-
U056	Cyclohexane (I)	U024	Ethane, 1,1'-(methylenebis(oxy))bis[2-chloro-
U057	Cyclohexanone (I)	U003	Ethanenitrile (I, T)
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa- chloro-	U117	Ethane,1,1'-oxybis- (I)
U058	Cyclophosphamide	U025	Ethane, 1,1'-oxybis[2-chloro-
U240	2,4,4-D, salts and esters	U184	Ethane, pentachloro-
U059	Daunomycin	U208	Ethane, 1,1,1,2-tetrachloro-
U060	DDD	U209	Ethane, 1,1,2,2-tetrachloro-
U061	DDT	U218	Ethanthicamide
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(c,d)-pentalen-2-one	U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxy-phenyl)-
U062	Diaflate	U227	Ethane, 1,1,2-trichloro-
U133	Diamine (R,T)	U043	Ethane, chloro-
U221	Diaminotoluene		

Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
U042	Ethene, 2 chloroethoxy-	U068	Methane, dibromo-
U078	Ethene, 1,1-dichloro-	U080	Methane, dichloro-
U079	Ethene, trans-1,2-dichloro	U075	Methane, dichlorodifluoro-
U210	Ethene, 1,1,2,2-tetrachloro-	U138	Methane, iodo-
U173	Ethanol, 2,2'-nitrosoimino)-bis-	U119	Methanesulfonic acid, ethyl ester
U004	Ethanone, 1-phenyl-	U211	Methane, tetrachloro-
U006	Ethanoyl chloride (C,R,T)	U121	Methane, trichlorofluoro-
U112	Ethyl acetate (I)	U153	Methanethiol (I,T)
U113	Ethyl acrylate (I)	U225	Methane, tribromo-
U238	Ethyl carbamate (urethan)	U044	Methane, trichloro-
U038	Ethyl 4,4'-dichlorobenzilate	U121	Methane, trichlorofluoro-
U114	Ethylenebis(dithiocarbamic acid)	U123	Methanoic acid (C,T)
U067	Ethylene dibromide	U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-oxa-chloro-3a,4,7,7a-tetrahydro-
U077	Ethylene dichloride	U154	Methanol (I)
U115	Ethylene oxide (I,T)	U155	Methanopylone
U116	Ethylene thiourea	U247	Methoxychlor.
U117	Ethyl ether (I)	U154	Methyl alcohol (I)
U078	Ethylene dichloride	U029	Methyl bromide
U118	Ethylmethacrylate	U186	1-Methylbutadiene (I)
U119	Ethyl methanesulfonate	U045	Methyl chloride (I,T)
U139	Ferric dextran	U156	Methyl chlorocarbonate (I,T)
U120	Fluoranthene	U226	Methylchloroform
U122	Formaldehyde	U157	3-Methylcholanthrene
U123	Formic acid (C,T)	U158	4,4'-Methylenebis(2-chloroaniline)
U124	Furan (I)	U132	2,2'-Methylenebis(3,4,6-trichlorophenol)
U125	2-Furancarboxaldehyde (I)	U068	Methylene bromide
U147	2,5-Furandione	U080	Methylene chloride
U213	Furan, tetrahydro- (I)	U122	Methylene oxide
U125	Furfural (I)	U159	Methyl ethyl ketone (I,T)
U124	Furfuran (I)	U160	Methyl ethyl ketone peroxide (R,T)
U206	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitro-sauroido)-	U138	Methyl iodide
U126	Glycidylaldehyde	U161	Methyl isobutyl ketone (I)
U163	Guanidine, N-nitroso-N-methyl-N'-nitro-	U162	Methyl methacrylate (I,T)
U127	Hexachlorobenzene	U163	N-Methyl-N'-nitro-N-nitrosoguanidine
U128	Hexachlorobutadiene	U161	4-Methyl-2-pentanone (I)
U129	Hexachlorocyclohexane (gamma isomer)	U164	Methylthiouacil
U130	Hexachlorocyclopentadiene	U010	Mitomycin C
U131	Hexachloroethane	U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-
U132	Hexachloroethane	U165	Naphthalene
U243	Hexachloropropene	U047	Naphthalene, 2-chloro-
U133	Hydrazine (R,T)	U166	1,4-Naphthalenedione
U086	Hydrazine, 1,2-diethyl-	U236	2,7-Naphthalenedisulfonic acid, 3,3'-(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis (azo)bis(5-amino-4-hydroxy)-tetrasodium salt
U098	Hydrazine, 1,1-dimethyl-	U166	1,4-Naphthaquinone
U099	Hydrazine, 1,2-dimethyl-	U167	1-Naphthylamine
U109	Hydrazine, 1,2-diphenyl-	U168	2-Naphthylamine
U134	Hydrofluoric acid (C,T)	U167	alpha-Naphthylamine
U134	Hydrogen fluoride (C,T)	U168	beta-Naphthylamine
U135	Hydrogen sulfide	U026	2-Naphthylamine, N,N'-bis(2-chloromethyl)-
U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)	U169	Nitrobenzene (I,T)
U136	Hydroxydimethylarsine oxide	U170	p-Nitrophenol
U116	2-Imidazolidinethione	U171	2-Nitropropane (I)
U137	Indeno[1,2,3-cd]pyrene	U172	N-Nitrosodi-n-butylamine
U139	Iron dextran	U173	N-Nitrosodihydroethanamine
U140	Isobutyl alcohol (I,T)	U174	N-Nitrosodihydroethanamine
U141	Isosafrole	U111	N-Nitroso-N-propylamine
U142	Kepona	U176	N-Nitroso-N-ethylurea
U143	Lasiocarpine	U177	N-Nitroso-N-methylurea
U144	Lead acetate	U178	N-Nitroso-N-methylurethane
U145	Lead phosphate	U179	N-Nitrosopiperidine
U146	Lead subacetate	U180	N-Nitrosopyrrolidine
U146	Lead subacetate	U181	5-Nitro-o-toluidine
U129	Leucane	U193	1,2-Oxathiolane, 2,2-dioxide
U147	Maleic anhydride	U058	2H-1,3,2-Oxazaphosphorine, 2-bis(2-chloro-ethyl)amino tetrahydro-, oxide 2-
U148	Malic hydrazide	U115	Oxirane (I,T)
U149	Malononitrile		
U150	Melphalan		
U151	Mercury		
U152	Methacrylonitrile (I,T)		
U092	Methanamine, N-methyl- (I)		
U029	Methane, bromo-		
U045	Methane, chloro- (I,T)		
U046	Methane, chloromethoxy-		

Hazardous Waste No.	Substance
U041	Oxirane, 2-(chloromethyl)-
U102	Paraldehyde
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U242	Pentachlorophenol
U186	1,3-Pentadione (I)
U187	Phenacelin
U188	Phenol
U048	Phenol, 2-chloro-
U039	Phenol, 4-chloro-3-methyl-
U081	Phenol, 2,4-dichloro-
U082	Phenol, 2,6-dichloro-
U101	Phenol, 2,4-dimethyl-
U170	Phenol, 4-nitro-
U242	Phenol, pentachloro-
U212	Phenol, 2,3,4,6-tetrachloro-
U230	Phenol, 2,4,5-trichloro-
U231	Phenol, 2,4,6-trichloro-
U137	1,10-(1,2-phenylene)pyrene
U145	Phosphoric acid, Lead salt
U087	Phosphorodithioic acid, 0,0-diethyl-, S-methyl-ester
U189	Phosphorous sulfide (R)
U190	Phthalic anhydride
U191	2-Picoline
U192	Pronamide
U194	1-Propanamine (I,T)
U110	1-Propanamine, N-propyl- (I)
U066	Propane, 1,2-dibromo-3-chloro-
U149	Propanedinitrile
U171	Propane, 2-nitro- (I)
U027	Propane, 2,2'-oxybis[2-chloro-
U193	1,3-Propane sulfone
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U126	1-Propanol, 2,3-epoxy-
U140	1-Propanol, 2-methyl- (I,T)
U002	2-Propanone (I)
U007	2-Propanamide
U084	Propene, 1,3-dichloro-
U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	2-Propanenitrile
U152	2-Propanenitrile, 2-methyl- (I,T)
U008	2-Propenoic acid (I)
U113	2-Propenoic acid, ethyl ester (I)
U118	2-Propenoic acid, 2-methyl-, ethyl ester
U162	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U233	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	n-Propylamine (I,T)
U083	Propylene dichloride
U196	Pyridine
U155	Pyridine, 2-[(2-(dimethylamino)-2-thenylamino)-]
U179	Pyridine, hexahydro-4-nitroso-
U191	Pyridine, 2-methyl-
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	Pyrrrole, tetrahydro-N-nitroso-
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenious acid
U204	Selenium dioxide
U205	Selenium disulfide (R,T)
U015	L-Serine, diazoacetate (ester)
U233	Silvex
U089	4,4'-Stilbenediol, alpha, alpha'-diethyl-
U206	Streptozotocin
U135	Sulfur hydrides
U103	Sulfuric acid, dimethyl ester
U189	Sulfur phosphide (R)

Hazardous Waste No.	Substance
U205	Sulfur selenide (R,T)
U232	2,4,5-T
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2-Tetrachloroethane
U209	1,1,2,2-Tetrachloroethane
U210	Tetrachloroethylene
U212	2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)
U214	Thallium(I) acetate
U215	Thallium(I) carbonate
U216	Thallium(I) chloride
U217	Thallium(I) nitrate
U218	Thioacetamide
U153	Triethanolol (I,T)
U219	Thiourea
U244	Thiram
U220	Toluene
U221	Toluenediamine
U223	Toluene diisocyanate (R,T)
U222	O-Toluidine hydrochloride
U011	1H-1,2,4-Triazol-3-amino
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U228	Trichloroethylene
U121	Trichloromonofluoromethane
U230	2,4,5-Trichlorophenol
U231	2,4,6-Trichlorophenol
U232	2,4,5-Trichlorophenoxyacetic acid
U234	sym-Trinitrobenzene (R,T)
U182	1,3,5-Trioxane, 2,4,5-trimethyl-
U235	Tris(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil, 5-bis(2-chloromethyl)amino-
U237	Uracil mustard
U043	Vinyl chloride
U248	Warfarin, when present at concentrations of 0.3% or less
U239	Xylene (I)
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy], methyl ester
U249	Zinc phosphide, when present at concentrations of 10% or less

[45 FR 78529, 78541, Nov. 25, 1980, as amended at 46 FR 27477, May 20, 1981; 49 FR 19923, May 10, 1984]

EFFECTIVE DATE NOTE: At 49 FR 19923, May 10, 1984, § 261.33 was amended by revising three entries in the table in paragraph (e), and adding three entries to the table in paragraph (f) identified by hazardous waste numbers U248, (3-(alpha-Acetoxybenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less, and Warfarin, when present at concentrations of 0.3% or less), and U249, (Zinc phosphide, when present at concentrations of 10% or less), effective November 12, 1984. For the convenience of the user, the superseded entries from the table in paragraph (e) are set out below.

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

APPENDIX II—EP TOXICITY TEST PROCEDURES

A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size 100 grams) shall be obtained using the methods specified in Appendix I or any other method capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).]

2. The sample shall be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue^b obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator shall treat the liquid phase as the extract and proceed immediately to Step 8.

3. The solid material obtained from the Separation Procedure shall be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm² or passes through a 9.5 mm (0.375 inch) standard sieve, the operator shall proceed to Step 4. If the surface area is smaller or the particle size larger than specified above, the solid material shall be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.

4. The solid material obtained in Step 3 shall be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continuously brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the opera-

^b The percent solids is determined by drying the filter pad at 80°C until it reaches constant weight and then calculating the percent solids using the following equation:
Percent solids =

$$\frac{(\text{weight of pad} + \text{solid}) - (\text{tare weight of pad})}{\text{initial weight of sample}} \times 100$$

(e) * * *

Hazardous waste No.	Substance
P001	3-(alpha-acetoxybenzyl)-4-hydroxycoumarin and salts
P001	Warfarin
P122	Zinc phosphide (R,T)

APPENDIX I—REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65 Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods." *

This manual also contains additional information on application of these protocols.

* These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

tor shall begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution shall be decreased to 5.0 ± 0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution shall be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid shall be added to bring the pH down to 5.0 ± 0.2 . However, in no event shall the aggregate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture shall be agitated for 24 hours and maintained at 20°-40°C (68°-104°F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45-A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjunction with a metering pump and reservoir of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter shall be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution shall be checked and, if necessary, 0.5N acetic acid shall be manually added to the extractor until the pH reaches 5.0 ± 0.2 . The pH of the solution shall be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure shall be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH shall be adjusted to 5.0 ± 0.2 and the extraction continued for an additional four hours, during which the pH shall be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water shall be added to the extractor in an amount determined by the following equation:

$$V = (20)(W) - 16(W) - A$$

V = ml deionized water to be added

W = weight in grams of solid charged to extractor

A = ml of 0.5N acetic acid added during extraction

7. The material in the extractor shall be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 shall be combined. This combined liquid (or the waste itself if it has less than 1/2 percent solids, as noted in step 2) is the extract and shall be analyzed for the presence of any of the contaminants specified in Table I of

§ 261.24 using the Analytical Procedures designated below.

Separation Procedure

Equipment: A filter holder, designed for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm² (75 psi) hydrostatic pressure to the solution being filtered, shall be used. For mixtures containing nonabsorptive solids, where separation can be effected without imposing a 5.3 kg/cm² pressure differential, vacuum filters employing a 0.45 micrometers filter media can be used. (For further guidance on filtration equipment or procedures see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" incorporated by reference, see § 260.11). Procedure:²

(i) Following manufacturer's directions, the filter unit shall be assembled with a filter bed consisting of a 0.45 micrometer filter membrane. For difficult or slow to filter mixtures a prefilter bed consisting of the following prefilters in increasing pore size (0.65 micrometer membrane, fine glass fiber prefilter, and coarse glass fiber prefilter) can be used.

(ii) The waste shall be poured into the filtration unit.

(iii) The reservoir shall be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter shall be immediately lowered to 10-15 psig. Filtration shall be continued until liquid flow ceases.

(iv) The pressure shall be increased stepwise in 10 psi increments to 75 psig and filtration continued until flow ceases or the pressurizing gas begins to exit from the filtrate outlet.

(v) The filter unit shall be depressurized, the solid material removed and weighed and then transferred to the extraction apparatus, or, in the case of final filtration prior to

²This procedure is intended to result in separation of the "free" liquid portion of the waste from any solid matter having a particle size >0.45 μm. If the sample will not filter, various other separation techniques can be used to aid in the filtration. As described above, pressure filtration is employed to speed up the filtration process. This does not alter the nature of the separation. If liquid does not separate during filtration, the waste can be centrifuged. If separation occurs during centrifugation, the liquid portion (centrifugate) is filtered through the 0.45 μm filter prior to becoming mixed with the liquid portion of the waste obtained from the initial filtration. Any material that will not pass through the filter after centrifugation is considered a solid and is extracted.

analysis, discarded. Do not allow the material retained on the filter pad to dry prior to weighing.

(vi) The liquid phase shall be stored at 4°C for subsequent use in Step 8.

B. Structural Integrity Procedure

Equipment: A Structural Integrity Tester having a 3.18 cm (1.25 in.) diameter hammer weighing 0.33 kg (0.73 lbs.) and having a free fall of 15.24 cm (6 in.) shall be used. This device is available from Associated Design and Manufacturing Company, Alexandria, VA 22314, as Part No. 125, or it may be fabricated to meet the specifications shown in Figure 1.

Procedure

1. The sample holder shall be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion shall be cut from the block having the dimensions of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder. For a fixated waste, samples may be cast in the form of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder for purposes of conducting this test. In such

cases, the waste may be allowed to cure for 30 days prior to further testing.

2. The sample holder shall be placed into the Structural Integrity Tester, then the hammer shall be raised to its maximum height and dropped. This shall be repeated fifteen times.

3. The material shall be removed from the sample holder, weighed, and transferred to the extraction apparatus for extraction.

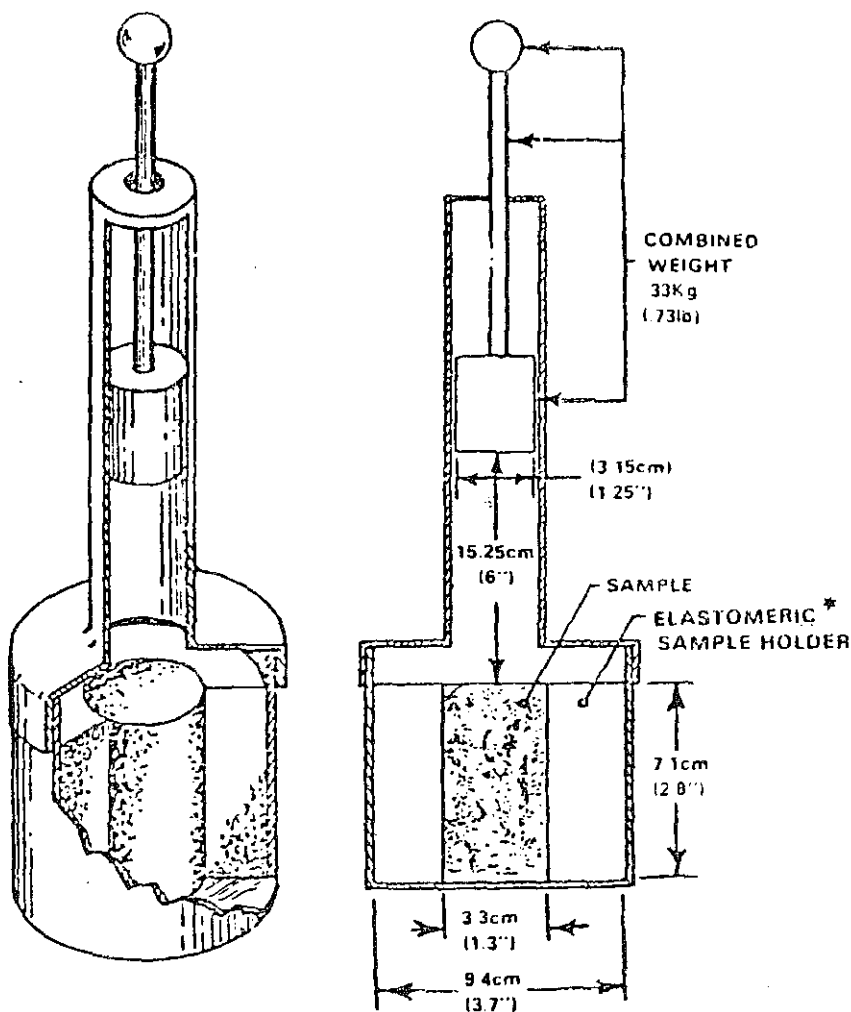
Analytical Procedures for Analyzing Extract Contaminants

The test methods for analyzing the extract are as follows:

1. For arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, toxaphene, 2,4-D[2,4-dichlorophenoxyacetic acid] or 2,4,5-TP [2,4,5-trichlorophenoxypropionic acid]: "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

2. [Reserved]

For all analyses, the methods of standard addition shall be used for quantification of species concentration.



*ELASTOMERIC SAMPLE HOLDER FABRICATED OF MATERIAL FIRM ENOUGH TO SUPPORT THE SAMPLE

Figure 1
COMPACTON TESTER

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

APPENDIX III—CHEMICAL ANALYSIS TEST METHODS

TABLE 1—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846—Continued

Tables 1, 2, and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," (incorporated by reference, see § 260.11) which shall be used to determine whether a sample contains a given Appendix VII or VIII toxic constituent.

Table 1 identifies each Appendix VII or VIII organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.

Prior to final sampling and analysis method selection the analyst should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

TABLE 1—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Acetonitrile	8.03, 8.24	8030, 8240
Acrolein	8.03, 8.24	8030, 8240
Acrylamide	8.01, 8.24	8015, 8240
Acrylonitrile	8.03, 8.24	8030, 8240
Benzene	8.02, 8.24	8020, 8024
Benz(a)anthracene	8.10, 8.25	8100, 8250, 8310
Benzo(a)pyrene	8.10, 8.25	8100, 8250, 8310
Benzotrichloride	8.12, 8.25	8120, 8250
Benzyl chloride	8.01, 8.12, 8.24, 8.25	8120, 8250
Benzo(b)fluoranthene	8.10, 8.25	8100, 8250, 8310
Bis(2-chloroethoxy)methane	8.01, 8.24	8010, 8240
Bis(2-chloroethyl)ether	8.01, 8.24	8010, 8240
Bis(2-chloroisopropyl)ether	8.01, 8.24	8010, 8240
Carbon disulfide	8.01, 8.24	8015, 8240
Carbon tetrachloride	8.01, 8.24	8010, 8240
Chlordane	8.08, 8.25	8080, 8250
Chlorinated dibenzodioxins	8.08, 8.25	8080, 8250
Chlorinated biphenyls	8.08, 8.25	8080, 8250
Chloroacetaldehyde	8.01, 8.24	8010, 8240
Chlorobenzene	8.01, 8.02, 8.24	8020, 8240
Chloroform	8.01, 8.24	8010, 8240
Chloromethane	8.01, 8.24	8010, 8240
2-Chlorophenol	8.04, 8.25	8040, 8250
Chrysene	8.10, 8.25	8100, 8250, 8310
Creosote ¹	8.10, 8.25	8100, 8250
Cresol(s)	8.04, 8.25	8040, 8250
Cresylic Acid(s)	8.04, 8.25	8040, 8250
Dichlorobenzene(s)	8.01, 8.02, 8.12, 8.25	8010, 8120, 8250

Compound	First edition method(s)	Second edition method(s)
Dichloroethane(s)	8.01, 8.24	8010, 8240
Dichloromethane	8.01, 8.24	8010, 8240
Dichlorophenoxyacetic acid	8.40, 8.25	8150, 8250
Dichloropropanol	8.12, 8.25	8120, 8250
2,4-Dimethylphenol	8.04, 8.25	8040, 8250
Dinitrobenzene	8.09, 8.25	8090, 8250
4,6-Dinitro-o-cresol	8.04, 8.25	8040, 8250
2,4-Dinitrotoluene	8.09, 8.25	8090, 8250
Endrin	8.08, 8.25	8080, 8250
Ethyl ether	8.01, 8.02, 8.24	8015, 8240
Formaldehyde	8.01, 8.24	8015, 8240
Formic acid	8.05, 8.25	8250
Heptachlor	8.06, 8.25	8060, 8250
Hexachlorobenzene	8.12, 8.25	8120, 8250
Hexachlorobutadiene	8.12, 8.25	8120, 8250
Hexachloroethane	8.12, 8.25	8010, 8240
Hexachlorocyclopentadiene	8.12, 8.25	8120, 8250
Lindane	8.08, 8.25	8080, 8250
Maleic anhydride	8.06, 8.25	8250
Methanol	8.01, 8.24	8010, 8240
Methylol	8.01, 8.02, 8.32	8250
Methyl ethyl ketone	8.01, 8.02, 8.24	8015, 8240
Methyl isobutyl ketone	8.01, 8.02, 8.24	8015, 8240
Naphthalene	8.10, 8.25	8100, 8250
Naphthoquinone	8.06, 8.09, 8.25	8090, 8250
Nitrobenzene	8.09, 8.25	8090, 8250
4-Nitrophenol	8.04, 8.25	8040, 8240
Paraldehyde (trimer of acetaldehyde)	8.01, 8.24	8015, 8240
Pentachlorophenol	8.04, 8.25	8040, 8250
Phenol	8.04, 8.25	8040, 8250
Phorate	8.22	8140
Phosphorodithioic acid esters	8.06, 8.09, 8.22	8140
Phthalic anhydride	8.06, 8.09, 8.25	8090, 8250
2-Picoline	8.06, 8.09, 8.25	8090, 8250
Pyridine	8.06, 8.09, 8.25	8090, 8250
Tetrachlorobenzene(s)	8.12, 8.25	8120, 8250
Tetrachloroethane(s)	8.01, 8.24	8010, 8240
Tetrachloroethane	8.01, 8.24	8010, 8240
Tetrachlorophenol	8.04, 8.24	8040, 8250
Toluene	8.02, 8.24	8020, 8024
Toluenediamine	8.25	8250
Toluene diisocyanate(s)	8.06, 8.25	8250
Toxaphene	8.08, 8.25	8080, 8250
Trichloroethane	8.01, 8.24	8010, 8240
Trichloroethene(s)	8.01, 8.24	8010, 8240
Trichlorofluoromethane	8.01, 8.24	8010, 8240
Trichlorophenol(s)	8.04, 8.25	8040, 8250
2,4,5-Trichlorophenoxy propionic acid	8.40, 8.25	8150, 8250
Trichloropropane	8.01, 8.24	8010, 8240
Vinyl chloride	8.01, 8.24	8010, 8240
Vinylidene chloride	8.01, 8.24	8010, 8240
Xylene	8.02, 8.24	8020, 8240

¹ Analyte for phenanthrene and carbazole; if these are present in a ratio between 1:4:1 and 5:1 creosote should be considered present.

TABLE 2—ANALYSIS METHODS FOR INORGANIC CHEMICALS CONTAINED IN SW 846

Compound	First edition method(s)	Second edition method(s)
Antimony	8.50	7040, 7041
Arsenic	8.51	7060, 7061
Barium	8.52	7080, 7081
Cadmium	8.53	7090, 7091
Chromium	8.54	7190, 7191
Chromium, Hexavalent	8.545, 8.546, 8.547	7195, 7196, 7197
Lead	8.56	7420, 7421

TABLE 2—ANALYSIS METHODS FOR INORGANIC CHEMICALS CONTAINED IN SW 846—Continued

Compound	First edition method(s)	Second edition method(s)
Mercury	8.57	7470, 7471
Nickel	8.58	7520, 7521
Selenium	8.59	7740, 7741
Silver	8.60	7760, 7761
Cyanides	8.55	9010
Total Organic Halogen	8.66	9020
Sulfides	8.67	9030

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW 846

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sampling of Solid Wastes	1.0		1.0	
Development of Appropriate Sampling Plans	1.0		1.1	
Regulatory and Scientific Objectives	1.0-2		1.1.1	
Fundamental Statistical Concepts	1.0-3		1.1.2	
Basic Statistical Strategies	1.0-7		1.1.3	
Simple Random Sampling			1.1.3.1	
Stratified Random Sampling			1.1.3.2	
Systematic Random Sampling			1.1.3.3	
Special Considerations	1.0-7			
Composite Sampling			1.1.4.1	
Subsampling			1.1.4.2	
Cost and Loss Functions			1.1.4.3	
Implementation of Sampling Plan	1.0-7		1.2	
Selection of Sampling Equipment			1.2.1	
Composite Liquid Waste Sampler	3.2.1		1.2.1.1	
Weighted Bottle	3.2.2		1.2.1.2	
Dipper	3.2.3		1.2.1.3	
Triel	3.2.4		1.2.1.4	
Trier	3.2.5		1.2.1.5	
Auger	3.2.6		1.2.1.6	
Scoop and Shovel	3.2.7		1.2.1.7	
Selection of Sample Containers	3.3		1.2.2	
Processing and Storage of Samples	3.3		1.2.3	
Documentation of Chain of Custody	2.0		1.3	
Sample Labels	2.0-1		1.3.1	
Sample Seals	2.0-3		1.3.2	
Field Log Book	2.0-5		1.3.3	
Chain-of-Custody Record	2.0-6		1.3.4	
Sample Analysis Request Sheet	2.0-9		1.3.5	
Sample Delivery to Laboratory	2.0-10		1.3.6	
Shipping of Samples	2.0-10		1.3.7	
Receipt and Logging of Sample	2.0-12		1.3.8	
Assignment of Sample for Analysis	2.0-13		1.3.9	
Sampling Methodology	3.0		1.4	
Containers	3.2-2		1.4.1	
Tanks	3.2-2		1.4.2	
Waste Piles	3.2-2		1.4.3	
Landfills and Lagoons	3.2-2		1.4.4	
Waste Evaluation Procedures			2.0	
Characteristics of Hazardous Waste			2.1	
Ignitability	4.0		2.1.1	
Pensky-Martens Closed-Cup Method	4.1		2.1.1	1010
Setafish Closed-Cup Method	4.1		2.1.1	1020
Corrosivity	5.0		2.1.2	
Corrosivity Toward Steel	5.3		2.1.2	1110
Reactivity	6.0		2.1.3	
Extraction Procedure Toxicity	7.0		2.1.4	
Extraction Procedure Toxicity Test	7.1, 7.2, 7.5			
Method and Structural Integrity Test	7.4		2.1.4	1310

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW 846—Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sample Workup Techniques				4.0
Inorganic Techniques	8.49			4.1
Acid Digestion for Flame AAS				4.1
Acid Digestion for Furnace AAS				3010
Acid Digestion of Oil, Grease, or Wax	8.49-9			4.1
Dissolution Procedure for Oil, Grease or Wax	8.49-9			3030
Alkaline Digestion	8.0	6.458		4.1
Organic Techniques	8.0			4.2
Separatory Funnel Liquid-Liquid Extraction	9.0	9.1		4.2
Continuous Liquid-Liquid Extraction	9.0	9.01		3510
Acid-Base Cleanup Extraction	8.0	8.84		4.2
Soxhlet Extraction	8.0	8.86		4.2
Sonication Extraction	8.0	6.85		4.2
Sample Introduction Techniques				5.0
Headspace	8.0	6.82		5.0
Purge-and-Trap	8.0	6.83		5.0
Inorganic Analytical Methods	8.0			7.0
Antimony, Flame AAS	8.0	8.50		7.0
Antimony, Furnace AAS	8.0	8.50		7.0
Arsenic, Flame AAS	8.0	8.51		7.0
Arsenic, Furnace AAS	8.0	8.51		7.0
Barium, Flame AAS	8.0	8.52		7.0
Barium, Furnace AAS	8.0	8.52		7.0
Cadmium, Flame AAS	8.0	8.53		7.0
Cadmium, Furnace AAS	8.0	8.53		7.0
Chromium, Flame AAS	8.0	8.54		7.0
Chromium, Furnace AAS	8.0	8.54		7.0
Chromium, Hexavalent, Coprecipitation	8.0	8.545		7.0
Chromium, Hexavalent, Colorimetric	8.0	8.546		7.0
Chromium, Hexavalent, Chelation	8.0	8.547		7.0
Lead, Flame AAS	8.0	8.56		7.0
Lead, Furnace AAS	8.0	8.56		7.0
Mercury, Cold Vapor, Liquid	8.0	8.57		7.0
Mercury, Cold Vapor, Solid	8.0	8.57		7.0
Nickel, Flame AAS	8.0	8.58		7.0
Nickel, Furnace AAS	8.0	8.58		7.0
Selenium, Flame AAS	8.0	8.59		7.0
Selenium, Gaseous Hydride AAS	8.0	8.59		7.0
Silver, Flame AAS	8.0	8.60		7.0
Silver, Furnace AAS	8.0	8.60		7.0
Organic Analytical Methods	8.0			8.0
Gas Chromatographic Methods	8.0			8.1
Halogenated Volatile Organics	8.0	8.01		8.1
Nonhalogenated Volatile Organics	8.0	8.01		8.1
Aromatic Volatile Organics	8.0	8.02		8.1
Acrolein, Acrylonitrile, Acetonitrile	8.0	8.03		8.1
Phenols	8.0	8.04		8.1
Phthalate Esters	8.0	8.06		8.1
Organochlorine Pesticides and PCBs	8.0	8.08		8.1
Nitroaromatics and Cyclic Ketones	8.0	8.09		8.1
Polynuclear Aromatic Hydrocarbons	8.0	8.10		8.1
Chlorinated Hydrocarbons	8.0	8.12		8.1
Organophosphorus Pesticides	8.0	8.22		8.1
Chlorinated Herbicides	8.0	8.40		8.1
Gas Chromatographic/Mass Spectroscopy Methods (GC/MS)	8.0			8.2
GC/MS Volatiles	8.0	8.24		8.2
GC/MS Semi-Volatiles, Packed Column	8.0	8.25		8.2
GC/MS Semi-Volatiles, Capillary	8.0	8.27		8.2
High Performance Liquid Chromatographic Methods (HPLC)	8.0			8.3
Polynuclear Aromatic Hydrocarbons	8.0	8.10		8.3
Miscellaneous Analytical Methods	8.0			9.0
Cyanide; Total and Amenable to Chlorination	8.0	8.55		9.0
Total Organic Halogen (TOX)	8.0	8.66		9.0
Sulfides	8.0	8.67		9.0
pH Measurement	5.0	5.2		9.0
Quality Control/Quality Assurance	10.0			10.1
Introduction	10.0			10.1
Program Design	10.0			10.2

TABLE 3--SAMPLING AND ANALYSIS METHODS CONTAINED IN SW 846--Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sampling	10.0		10.3	
Analysis	10.0		10.4	
Data Handling	10.0		10.5	

*See specific metal.

[48 FR 15257, Apr. 8, 1983]

APPENDIX IV--(RESERVED FOR RADIOACTIVE WASTE TEST METHODS)

APPENDIX V--(RESERVED FOR INFECTIOUS WASTE TREATMENT SPECIFICATIONS)

APPENDIX VI--(RESERVED FOR ETIOLOGIC AGENTS)

APPENDIX VII--BASIS FOR LISTING HAZARDOUS WASTE

EPA hazard-ous waste No.	Hazardous constituents for which listed
F001.....	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002.....	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003.....	N.A.
F004.....	Cresols and cresylic acid, nitrobenzene.
F005.....	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine.
F006.....	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007.....	Cyanide (salts).
F008.....	Cyanide (salts).
F009.....	Cyanide (salts).
F010.....	Cyanide (salts).
F011.....	Cyanide (salts).
F012.....	Cyanide (complexed).
F013.....	Hexavalent chromium, cyanide (complexed)
F024.....	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.

EPA hazard-ous waste No.	Hazardous constituents for which listed
K001.....	Pentachlorophenol phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene, dibenz(a,h)anthracene, acenaphthalene, acenaphthylene.
K002.....	Hexavalent chromium, lead
K003.....	Hexavalent chromium, lead.
K004.....	Hexavalent chromium.
K005.....	Hexavalent chromium, lead.
K006.....	Hexavalent chromium.
K007.....	Cyanide (complexed), hexavalent chromium.
K008.....	Hexavalent chromium.
K009.....	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraaldehyde, formic acid
K010.....	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraaldehyde, formic acid, chloroacetaldehyde.
K011.....	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013.....	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014.....	Acetonitrile, acrylamide.
K015.....	Benzyl chloride, chlorobenzene, toluene, benzo-trichloride.
K016.....	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017.....	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanol.
K018.....	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019.....	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020.....	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021.....	Antimony, carbon tetrachloride, chloroform.
K022.....	Phenol, tars (polycyclic aromatic hydrocarbons).
K023.....	Phthalic anhydride, maleic anhydride.
K024.....	Phthalic anhydride, 1,4-naphthoquinone.
K025.....	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026.....	Paraaldehyde, pyridines, 2-picoline.
K027.....	Toluene diisocyanate, toluene-2, 4-diamine.
K028.....	1,1,1-trichloroethane, vinyl chloride.

EPA hazard-ous waste No.	Hazardous constituents for which listed	EPA hazard-ous waste No.	Hazardous constituents for which listed
K029.....	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.	K105.....	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol
K030.....	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.	K106.....	Mercury.
K031.....	Arsenic.		
K032.....	Hexachlorocyclopentadiene.		
K033.....	Hexachlorocyclopentadiene.		
K034.....	Hexachlorocyclopentadiene.		
K035.....	Cresosote, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenz(a,h)anthracene, acenaphthalene.		
K036.....	Toluene, phosphorodithioic and phosphorothioic acid esters.		
K037.....	Toluene, phosphorodithioic and phosphorothioic acid esters.		
K038.....	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.		
K039.....	Phosphorodithioic and phosphorothioic acid esters.		
K040.....	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.		
K041.....	Toxaphene.		
K042.....	Hexachlorobenzene, ortho-dichlorobenzene.		
K043.....	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.		
K044.....	N.A.		
K045.....	N.A.		
K046.....	Lead.		
K047.....	N.A.		
K048.....	Hexavalent chromium, lead.		
K049.....	Hexavalent chromium, lead.		
K050.....	Hexavalent chromium.		
K051.....	Hexavalent chromium, lead.		
K052.....	Lead.		
K060.....	Cyanide, naphthalene, phenolic compounds, arsenic.		
K061.....	Hexavalent chromium, lead, cadmium.		
K062.....	Hexavalent chromium, lead.		
K069.....	Hexavalent chromium, lead, cadmium.		
K071.....	Mercury.		
K073.....	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.		
K083.....	Aniline, diphenylamine, nitrobenzene, phenylenediamine.		
K084.....	Arsenic.		
K085.....	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.		
K086.....	Lead, hexavalent chromium.		
K087.....	Phenol, naphthalene.		
K093.....	Phthalic anhydride, maleic anhydride.		
K094.....	Phthalic anhydride.		
K095.....	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.		
K096.....	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.		
K097.....	Chlordane, heptachlor.		
K098.....	Toxaphene.		
K099.....	2,4-dichlorophenol, 2,4,6-trichlorophenol.		
K100.....	Hexavalent chromium, lead, cadmium.		
K101.....	Arsenic.		
K102.....	Arsenic.		
K103.....	Aniline, nitrobenzene, phenylenediamine.		
K104.....	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.		

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

[46 FR 4619, Jan. 16, 1981, as amended at 46 FR 27477, May 20, 1981; 49 FR 5312, Feb. 10, 1984]

EFFECTIVE DATE NOTE: At 49 FR 5312, Feb. 10, 1984, the entry identified by EPA hazardous waste no. F024, was added to the table in Appendix VII, effective August 10, 1984.

APPENDIX VIII--HAZARDOUS CONSTITUENTS

Acetonitrile (Ethanenitrile)
Acetophenone (Ethanone, 1-phenyl)
3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts (Warfarin)
2-Acetylaminofluorene (Acetamide, N-(9H-fluoren-2-yl)-)
Acetyl chloride (Ethanoyl chloride)
1-Acetyl-2-thiourea (Acetamide, N-(aminothioxomethyl)-)
Acrolein (2-Propenal)
Acrylamide (2-Propenamide)
Acrylonitrile (2-Propenenitrile)
Aflatoxins
Aldrin (1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a,8b-hexahydro-endo,exo-1,4,5,8-Dimethanonaphthalene)
Allyl alcohol (2-Propen-1-ol)
Aluminum phosphide
4-Aminobiphenyl ((1,1'-Biphenyl)-4-amine)
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl-carbamate azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, (ester) (Mitomycin C)
6-amino-8-((amino-carbonyloxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-5-(Aminomethyl)-3-isoxazolol (3(2H)-Isoxazolone, 5-(aminomethyl)-) 4-Aminopyridine (4-Pyridinamine)
Amitrole (1H-1,2,4-Triazol-3-amine)
Aniline (Benzenamine)
Antimony and compounds, N.O.S.*
Aramite (Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester)

* The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Arsenic and compounds, N.O.S.*
 Arsenic acid (Orthoarsenic acid)
 Arsenic pentoxide (Arsenic (V) oxide)
 Arsenic trioxide (Arsenic (III) oxide)
 Auramine (Benzenamine, 4,4'-carbonimidoylbis[N,N-Dimethyl-, mono-hydrochloride])
 Azaserine (L-Serine, diazoacetate (ester))
 Barium and compounds, N.O.S.*
 Barium cyanide
 Benz[*c*]acridine (3,4-Benzacridine)
 Benz[*a*]anthracene (1,2-Benzanthracene)
 Benzene (Cyclohexatriene)
 Benzenearsonic acid (Arsenic acid, phenyl-)
 Benzene, dichloromethyl- (Benzal chloride)
 Benzenethiol (Thiophenol)
 Benzidine ((1,1'-Biphenyl)-4,4'-diamine)
 Benzo[*b*]fluoranthene (2,3-Benzofluoranthene)
 Benzo[*j*]fluoranthene (7,8-Benzofluoranthene)
 Benzo[*a*]pyrene (3,4-Benzopyrene)
 p-Benzoquinone (1,4-Cyclohexadienedione)
 Benzotrichloride (Benzene, trichloromethyl)
 Benzyl chloride (Benzene, (chloromethyl)-)
 Beryllium and compounds, N.O.S.*
 Bis(2-chloroethoxy)methane (Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-])
 Bis(2-chloroethyl) ether (Ethane, 1,1'-oxybis[2-chloro-])
 N,N-Bis(2-chloroethyl)-2-naphthylamine (Chloronaphazine)
 Bis(2-chloroisopropyl) ether (Propane, 2,2'-oxybis[2-chloro-])
 Bis(chloromethyl) ether (Methane, oxybis[chloro-])
 Bis(2-ethylhexyl) phthalate (1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester)
 Bromoacetone (2-Propanone, 1-bromo-)
 Bromomethane (Methyl bromide)
 4-Bromophenyl phenyl ether (Benzene, 1-bromo-4-phenoxy-)
 Brucine (Strychnidin-10-one, 2,3-dimethoxy-)
 2-Butanone peroxide (Methyl ethyl ketone, peroxide)
 Butyl benzyl phthalate (1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester)
 2-sec-Butyl-4,6-dinitrophenol (DNBP) (Phenol, 2,4-dinitro-6-(1-methylpropyl)-)
 Cadmium and compounds, N.O.S.*
 Calcium chromate (Chromic acid, calcium salt)
 Calcium cyanide
 Carbon disulfide (Carbon bisulfide)
 Carbon oxyfluoride (Carbonyl fluoride)
 Chloral (Acetaldehyde, trichloro-)
 Chlorambucil (Butanoic acid, 4-(bis(2-chloroethyl)amino)benzene-)
 Chlordane (alpha and gamma isomers) (4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3,4,7,7a-tetrahydro-) (alpha and gamma isomers)
 Chlorinated benzenes, N.O.S.*
 Chlorinated ethane, N.O.S.*
 Chlorinated fluorocarbons, N.O.S.*

Chlorinated naphthalene, N.O.S.*
 Chlorinated phenol, N.O.S.*
 Chloroacetaldehyde (Acetaldehyde, chloro-)
 Chloroalkyl ethers, N.O.S.*
 p-Chloroaniline (Benzenamine, 4-chloro-)
 Chlorobenzene (Benzene, chloro-)
 Chlorobenzilate (Benzenoacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester)
 2-Chloro-1,3-butadiene (chloroprene)
 p-Chloro-m-cresol (Phenol, 4-chloro-3-methyl)
 1-Chloro-2,3-epoxypropane (Oxirane, 2-(chloromethyl)-)
 2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
 Chloroform (Methane, trichloro-)
 Chloromethane (Methyl chloride)
 Chloromethyl methyl ether (Methane, chloromethoxy-)
 2-Chloronaphthalene (Naphthalene, beta-chloro-)
 2-Chlorophenol (Phenol, o-chloro-)
 1-(o-Chlorophenyl)thiourea (Thiourea, (2-chlorophenyl)-)
 3-Chloropropene (allyl chloride)
 3-Chloropropionitrile (Propanenitrile, 3-chloro-)
 Chromium and compounds, N.O.S.*
 Chrysene (1,2-Benzphenanthrene)
 Citrus red No. 2 (2-Naphthol, 1-[(2,5-dimethoxyphenyl)azo-])
 Coal tars
 Copper cyanide
 Creosote (Creosote, wood)
 Cresols (Cresylic acid) (Phenol, methyl-)
 Crotonaldehyde (2-Butenal)
 Cyanides (soluble salts and complexes), N.O.S.*
 Cyanogen (Ethanedinitrile)
 Cyanogen bromide (Bromine cyanide)
 Cyanogen chloride (Chlorine cyanide)
 Cycasin (beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl-)
 2-Cyclohexyl-4,6-dinitrophenol (Phenol, 2-cyclohexyl-4,6-dinitro-)
 Cyclophosphamide (2H-1,3,2-Oxazaphosphorine, [bis(2-chloroethyl)amino]-tetrahydro-, 2-oxide)
 Daunomycin (6,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl]oxy-1,7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-)
 DDD (Dichlorodiphenyldichloroethane) (Ethane, 1,1-dichloro-2,2-bis(p-chlorophenyl)-)
 DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
 DDT (Dichlorodiphenyltrichloroethane) (Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
 Diallylate (S-(2,3-dichloroallyl) diisopropylthiocarbamate)
 Dibenz[*a,h*]acridine (1,2,5,6-Dibenzacridine)
 Dibenz[*a,j*]acridine (1,2,7,8-Dibenzacridine)

Dibenz[*a,h*]anthracene (1,2,5,6-Dibenzanthracene)
 7H-Dibenzo[*c,g*]carbazole (3,4,5,6-Dibenzcarbazole)
 Dibenzof[*a,e*]pyrene (1,2,4,5-Dibenzpyrene)
 Dibenzof[*a,h*]pyrene (1,2,5,6-Dibenzpyrene)
 Dibenzof[*a,i*]pyrene (1,2,7,8-Dibenzpyrene)
 1,2-Dibromo-3-chloropropane (Propane, 1,2-dibromo-3-chloro-)
 1,2-Dibromoethane (Ethylene dibromide)
 Dibromomethane (Methylene bromide)
 Di-n-butyl phthalate (1,2-Benzenedicarboxylic acid, dibutyl ester)
 o-Dichlorobenzene (Benzene, 1,2-dichloro-)
 m-Dichlorobenzene (Benzene, 1,3-dichloro-)
 p-Dichlorobenzene (Benzene, 1,4-dichloro-)
 Dichlorobenzene, N.O.S.* (Benzene, dichloro-, N.O.S.*)
 3,3'-Dichlorobenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-)
 1,4-Dichloro-2-butene (2-Butene, 1,4-dichloro-)
 Dichlorodifluoromethane (Methane, dichlorodifluoro-)
 1,1-Dichloroethane (Ethylidene dichloride)
 1,2-Dichloroethane (Ethylene dichloride)
 trans-1,2-Dichloroethene (1,2-Dichloroethylene)
 Dichloroethylene, N.O.S.* (Ethene, dichloro-, N.O.S.*)
 1,1-Dichloroethylene (Ethene, 1,1-dichloro-)
 Dichloromethane (Methylene chloride)
 2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
 2,6-Dichlorophenol (Phenol, 2,6-dichloro-)
 2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (Acetic acid, 2,4-dichlorophenoxy-, salts and esters)
 Dichlorophenylarsine (Phenyl dichloroarsine)
 Dichloropropane, N.O.S.* (Propane, dichloro-, N.O.S.*)
 1,2-Dichloropropane (Propylene dichloride)
 Dichloropropanol, N.O.S.* (Propanol, dichloro-, N.O.S.*)
 Dichloropropene, N.O.S.* (Propene, dichloro-, N.O.S.*)
 1,3-Dichloropropene (1-Propene, 1,3-dichloro-)
 Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octa-hydro-endo,exo-1,4:5,8-Dimethanonaphthalene)
 1,2,3,4-Diepoxybutane (2,2'-Bioxirane)
 Diethylarsine (Arsine, diethyl-)
 N,N-Diethylhydrazine (Hydrazine, 1,2-diethyl)
 O,O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid, O,O-diethyl S-methyl ester)
 O,O-Diethylphosphoric acid, O-p-nitrophenyl ester (Phosphoric acid, diethyl p-nitrophenyl ester)
 Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
 O,O-Diethyl O-2-pyrazinyl phosphorothioate (Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester)

Diethylstilbesterol (4,4'-Stilbenediol, alpha, alpha-diethyl, bis(dihydrogen phosphate, (E)-)
 Dihydroxofrole (Benzene, 1,2-methylene-dioxy-4-propyl-)
 3,4-Dihydroxy alpha-(methylamino)methyl benzyl alcohol (1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-)
 Diisopropylfluorophosphate (DFP) (Phosphorofluoric acid, bis(1-methylethyl) ester)
 Dimethoate (Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester)
 3,3'-Dimethoxybenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-)
 p-Dimethylaminoazobenzene (Benzenamine, N,N-dimethyl-4-(phenylazo)-)
 7,12-Dimethylbenz[*a*]anthracene (1,2-Benzanthracene, 7,12-dimethyl-)
 3,3'-Dimethylbenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-)
 Dimethylcarbamoyl chloride (Carbamoyl chloride, dimethyl-)
 1,1-Dimethylhydrazine (Hydrazine, 1,1-dimethyl-)
 1,2-Dimethylhydrazine (Hydrazine, 1,2-dimethyl-)
 3,3'-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl]oxime (Thiofanox)
 alpha, alpha-Dimethylphenethylamine (Eth-anamine, 1,1-dimethyl-2-phenyl-)
 2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
 Dimethyl phthalate (1,2-Benzenedicarboxylic acid, dimethyl ester)
 Dimethyl sulfate (Sulfuric acid, dimethyl ester)
 Dinitrobenzene, N.O.S.* (Benzene, dinitro-, N.O.S.*)
 4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
 2,4-Dinitrophenol (Phenol, 2,4-dinitro-)
 2,4-Dinitrotoluene (Benzene, 1-methyl-2,4-dinitro-)
 2,6-Dinitrotoluene (Benzene, 1-methyl-2,6-dinitro-)
 Di-n-octyl phthalate (1,2-Benzenedicarboxylic acid, dioctyl ester)
 1,4-Dioxane (1,4-Diethylene oxide)
 Diphenylamine (Benzenamine, N-phenyl-)
 1,2-Diphenylhydrazine (Hydrazine, 1,2-diphenyl-)
 Di-n-propylnitrosamine (N-Nitroso-di-n-propylamine)
 Disulfoton (O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate)
 2,4-Dithiobiuret (Thioimidodicarbonic diamide)
 Endosulfan (5-Norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite)
 Endrin and metabolites (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene, and metabolites)

Ethyl carbamate (Urethan) (Carbamic acid, ethyl ester)
 Ethyl cyanide (propanenitrile)
 Ethylenebisdithiocarbamic acid, salts and esters (1,2-Ethanediy)bis(2-mercaptoethane) dithioic acid, salts and esters
 Ethyleneimine (Aziridine)
 Ethylene oxide (Oxirane)
 Ethylenethiourea (2-Imidazolidinethione)
 Ethyl methacrylate (2-Propenoic acid, 2-methyl-, ethyl ester)
 Ethyl methanesulfonate (Methanesulfonic acid, ethyl ester)
 Fluoranthene (Benzo[*j,k*]fluorene)
 Fluorine
 2-Fluoroacetamide (Acetamide, 2-fluoro-)
 Fluoroacetic acid, sodium salt (Acetic acid, fluoro-, sodium salt)
 Formaldehyde (Methylene oxide)
 Formic acid (Methanoic acid)
 Glycidylaldehyde (1-Propanol-2,3-epoxy)
 Halomethane, N.O.S.*
 Heptachlor (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-)
 Heptachlor epoxide (alpha, beta, and gamma isomers) (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta, and gamma isomers)
 Hexachlorobenzene (Benzene, hexachloro-)
 Hexachlorobutadiene (1,3-Butadiene, 1,1,2,3,4,4-hexachloro-)
 Hexachlorocyclohexane (all isomers) (Lindane and isomers)
 Hexachlorocyclopentadiene (1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-)
 Hexachloroethane (Ethane, 1,1,1,2,2,2-hexachloro-)
 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo,endo-dimethanonaphthalene (Hexachlorohexahydro-endo,endo-dimethanonaphthalene)
 Hexachlorophene (2,2'-Methylenebis(3,4,6-trichlorophenol))
 Hexachloropropene (1-Propene, 1,1,2,3,3,3-hexachloro-)
 Hexaethyl tetraphosphate (Tetraphosphoric acid, hexaethyl ester)
 Hydrazine (Diamine)
 Hydrocyanic acid (Hydrogen cyanide)
 Hydrofluoric acid (Hydrogen fluoride)
 Hydrogen sulfide (Sulfur hydride)
 Hydroxydimethylarsine oxide (Cacodylic acid)
 Indeno(1,2,3-cd)pyrene (1,10-(1,2-phenylene)pyrene)
 Iodomethane (Methyl iodide)
 Iron dextran (Ferric dextran)
 Isocyanic acid, methyl ester (Methyl isocyanate)
 Isobutyl alcohol (1-Propanol, 2-methyl-)
 Isosafrole (Benzene, 1,2-methylenedioxy-4-allyl-)
 Kepone (Decachlorooctahydro-1,3,4-Methano-2H-cyclobuta[*cd*]pentalen-2-one)

Lasiocarpine (2-Butenoic acid, 2-methyl-, 7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)
 Lead and compounds, N.O.S.*
 Lead acetate (Acetic acid, lead salt)
 Lead phosphate (Phosphoric acid, lead salt)
 Lead subacetate (Lead, bis(acetato-O)tetrahydroxytri-)
 Malic anhydride (2,5-Furandione)
 Maleic hydrazide (1,2-Dihydro-3,6-pyridazin-edione)
 Malononitrile (Propanedinitrile)
 Melphalan (Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-)
 Mercury fulminate (Fulminic acid, mercury salt)
 Mercury and compounds, N.O.S.*
 Methacrylonitrile (2-Propenenitrile, 2-methyl-)
 Methanethiol (Thiomethanol)
 Methapyrilene (Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-)
 Metholmyl (Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester)
 Methoxychlor (Ethane, 1,1,1-trichloro-2,2'-bis(p-methoxyphenyl)-)
 2-Methylaziridine (1,2-Propylenimine)
 3-Methylcholanthrene (Benz[*l*]aceanthrylene, 1,2-dihydro-3-methyl-)
 Methyl chlorocarbonate (Carbonochloridic acid, methyl ester)
 4,4'-Methylenebis(2-chloroaniline) (Benzenamine, 4,4'-methylenebis-(2-chloro-)
 Methyl ethyl ketone (MEK) (2-Butanone)
 Methyl hydrazine (Hydrazine, methyl-)
 2-Methylacetonitrile (Propanenitrile, 2-hydroxy-2-methyl-)
 Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
 Methyl methanesulfonate (Methanesulfonic acid, methyl ester)
 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime (Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime)
 N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-nitroso-N-methyl-N'-nitro-)
 Methyl parathion (O,O-dimethyl O-(4-nitrophenyl) phosphorothioate)
 Methylthiouracil (4-1H-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
 Mustard gas (Sulfide, bis(2-chloroethyl)-)
 Naphthalene
 1,4-Naphthoquinone (1,4-Naphthalene-dione)
 1-Naphthylamine (alpha-Naphthylamine)
 2-Naphthylamine (beta-Naphthylamine)
 1-Naphthyl-2-thiourea (Thiourea, 1-naphthalenyl-)
 Nickel and compounds, N.O.S.*
 Nickel carbonyl (Nickel tetracarbonyl)
 Nickel cyanide (Nickel (II) cyanide)

Nicotine and salts (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
 Nitric oxide (Nitrogen (II) oxide)
 p-Nitroaniline (Benzenamine, 4-nitro-)
 Nitrobenzene (Benzene, nitro-)
 Nitrogen dioxide (Nitrogen (IV) oxide)
 Nitrogen mustard and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
 Nitrogen mustard N-Oxide and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
 Nitroglycerine (1,2,3-Propanetriol, trinitrate)
 4-Nitrophenol (Phenol, 4-nitro-)
 4-Nitroquinoline-1-oxide (Quinoline, 4-nitro-1-oxide-)
 Nitrosamine, N.O.S.*
 N-Nitrosodi-n-butylamine (1-Butanamine, N-butyl-N-nitroso-)
 N-Nitrosodiethanolamine (Ethanol, 2,2'-(nitrosoimino)bis-)
 N-Nitrosodiethylamine (Ethanamine, N-ethyl-N-nitroso-)
 N-Nitrosodimethylamine (Dimethylnitrosamine)
 N-Nitroso-N-ethylurea (Carbamide, N-ethyl-N-nitroso-)
 N-Nitrosomethylethylamine (Ethanamine, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurea (Carbamide, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurethane (Carbamic acid, methylnitroso-, ethyl ester)
 N-Nitrosomethylvinylamine (Ethanamine, N-methyl-N-nitroso-)
 N-Nitrosomorpholine (Morpholine, N-nitroso-)
 N-Nitrosornicotine (Normicotine, N-nitroso-)
 N-Nitrosopiperidine (Pyridine, hexahydro-, N-nitroso-)
 Nitrosopyrrolidine (Pyrrole, tetrahydro-, N-nitroso-)
 N-Nitrososarcosine (Sarcosine, N-nitroso-)
 5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-nitro-)
 Octamethylpyrophosphoramide (Diphosphoramide, octamethyl-)
 Osmium tetroxide (Osmium (VIII) oxide)
 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (Endothal)
 Paraldehyde (1,3,5-Trioxane, 2,4,6-trimethyl-)
 Parathion (Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester)
 Pentachlorobenzene (Benzene, pentachloro-)
 Pentachloroethane (Ethane, pentachloro-)
 Pentachloronitrobenzene (PCNB) (Benzene, pentachloronitro-)
 Pentachlorophenol (Phenol, pentachloro-)
 Phenacetin (Acetamide, N-(4-ethoxyphenyl)-)
 Phenol (Benzene, hydroxy-)
 Phenylenediamine (Benzenediamine)

Phenylmercury acetate (Mercury, acetato-phenyl-)
 N-Phenylothiourea (Thiourea, phenyl-)
 Phosgene (Carbonyl chloride)
 Phosphine (Hydrogen phosphide)
 Phosphorothioic acid, O,O-diethyl S-[(ethylthio)methyl] ester (Phorate)
 Phosphorothioic acid, O,O-dimethyl O-(p-(dimethylamino)sulfonylphenyl) ester (Famphur)
 Phthalic acid esters, N.O.S.* (Benzene, 1,2-dicarboxylic acid, esters, N.O.S.*)
 Phthalic anhydride (1,2-Benzenedicarboxylic acid anhydride)
 2-Picoline (Pyridine, 2-methyl-)
 Polychlorinated biphenyl, N.O.S.*
 Potassium cyanide
 Potassium silver cyanide (Argentate(1-), dicyano-, potassium)
 Pronamide (3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
 1,3-Propane sultone (1,2-Oxathiolane, 2,2-dioxide)
 n-Propylamine (1-Propanamine)
 Propylthiouracil (Undecamethylenediamine, N,N'-bis(2-chlorobenzyl)-, dihydrochloride)
 2-Propyn-1-ol (Propargyl alcohol)
 Pyridine
 Reserpine (Yohimban-16-carboxylic acid, 11,17-dimethoxy-16-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester)
 Resorcinol (1,3-Benzenediol)
 Saccharin and salts (1,2-Benzoisothiazolin-3-one, 1,1-dioxide, and salts)
 Safrole (Benzene, 1,2-methylenedioxy-4-allyl-)
 Selenious acid (Selenium dioxide)
 Selenium and compounds, N.O.S.*
 Selenium sulfide (Sulfur selenide)
 Selenourea (Carbamimidoseleonic acid)
 Silver and compounds, N.O.S.*
 Silver cyanide
 Sodium cyanide
 Streptozotocin (D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-)
 Strontium sulfide
 Strychnine and salts (Strychnidin-10-one, and salts)
 1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-tetrachloro-)
 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)
 Tetrachloroethane, N.O.S.* (Ethane, tetrachloro-, N.O.S.*)
 1,1,1,2-Tetrachloroethane (Ethane, 1,1,1,2-tetrachloro-)
 1,1,2,2-Tetrachloroethane (Ethane, 1,1,2,2-tetrachloro-)
 Tetrachloroethane (Ethene, 1,1,2,2-tetrachloro-)
 Tetrachloromethane (Carbon tetrachloride)
 2,3,4,6-Tetrachlorophenol (Phenol, 2,3,4,6-tetrachloro-)
 Tetraethylthiopyrophosphate (Dithiopyrophosphoric acid, tetraethyl-ester)

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Tetraethyl lead (Phumbane, tetraethyl-)
 Tetraethylpyrophosphate (Pyrophosphoric acid, tetraethyl ester)
 Tetranitromethane (Methane, tetranitro-)
 Thallium and compounds, N.O.S.*
 Thallous oxide (Thallium (III) oxide)
 Thallium (I) acetate (Acetic acid, thallium (I) salt)
 Thallium (I) carbonate (Carbonic acid, thallium (I) salt)
 Thallium (I) chloride
 Thallium (I) nitrate (Nitric acid, thallium (I) salt)
 Thallium selenite
 Thallium (I) sulfate (Sulfuric acid, thallium (I) salt)
 Thioacetamide (Ethanethioamide)
 Thiosemicarbazide (Hydrazinecarbothioamide)
 Thiourea (Carbamide thio-)
 Thiuram (Bis(dimethylthiocarbonyl) disulfide)
 Toluene (Benzene, methyl-)
 Toluenediamine (Diaminotoluene)
 o-Toluidine hydrochloride (Benzenamine, 2-methyl-, hydrochloride)
 Toluene diisocyanate (Benzene, 1,3-diisocyanatomethyl-)
 Toxaphene (Camphene, octachloro-)
 Tribromomethane (Bromoform)
 1,2,4-Trichlorobenzene (Benzene, 1,2,4-trichloro-)
 1,1,1-Trichloroethane (Methyl chloroform)
 1,1,2-Trichloroethane (Ethane, 1,1,2-trichloro-)
 Trichloroethene (Trichloroethylene)
 Trichloromethanethiol (Methanethiol, trichloro-)
 Trichloromonofluoromethane (Methane, trichlorofluoro-)
 2,4,5-Trichlorophenol (Phenol, 2,4,5-trichloro-)
 2,4,6-Trichlorophenol (Phenol, 2,4,6-trichloro-)
 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (Acetic acid, 2,4,5-trichlorophenoxy-)
 2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex) (Propionic acid, 2-(2,4,5-trichlorophenoxy)-)
 Trichloropropane, N.O.S.* (Propane, trichloro-, N.O.S.*)
 1,2,3-Trichloropropane (Propane, 1,2,3-trichloro-)
 O,O,O-Triethyl phosphorothioate (Phosphorothioic acid, O,O,O-triethyl ester)
 sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-)
 Tris(1-azridinyl) phosphine sulfide (Phosphine sulfide, tris(1-azridinyl-))
 Tris(2,3-dibromopropyl) phosphate (1-Propanol, 2,3-dibromo-, phosphate)
 Trypan blue (2,7-Naphthalenedisulfonic acid, 3,3'-(3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo))bis(5-amino-4-hydroxy-, tetrasodium salt)
 Uracil mustard (Uracil 5-[bis(2-chloroethyl)aminol-])

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Vanadic acid, ammonium salt (ammonium vanadate)
 Vanadium pentoxide (Vanadium (V) oxide)
 Vinyl chloride (Ethene, chloro-)
 Zinc cyanide
 Zinc phosphide
 [46 FR 27477, May 20, 1981; 46 FR 29708, June 3, 1981; 49 FR 5312, Feb. 10, 1984]
EFFECTIVE DATE NOTE: At 49 FR 5312, Feb. 10, 1984, the entries for 2-Chloro-1, 3-butadiene (chloroprene), and 3-Chloropropene (allyl chloride), were added to the table in Part 261, App. VIII, effective August 10, 1984.

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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APPENDIX—UNIFORM HAZARDOUS WASTE MANIFEST AND INSTRUCTIONS (EPA FORMS 8700-22 AND 8700-22A AND THEIR INSTRUCTIONS)

AUTHORITY: Secs. 2002, 3001, 3002, 3003, 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended by (42 U.S.C. 8912, 6921 through 6925).

EFFECTIVE DATE NOTE: At 49 FR 10500, Mar. 20, 1984, the authority citation for Part 262 was published as set forth above, effective September 20, 1984. For the conven-

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ience of the user, the superseded authority is set forth below.

AUTHORITY: Secs. 1006, 2002, 3002, 3003, 3004, and 3005, Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA) (42 U.S.C. 6905, 6912, 6922, 6923, 6924, 6925).

SOURCE: 45 FR 33142, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 262.10 Purpose, scope, and applicability.

(a) These regulations establish standards for generators of hazardous waste.

(b) A generator who treats, stores, or disposes of hazardous waste on-site must only comply with the following sections of this Part with respect to that waste: Section 262.11 for determining whether or not he has a hazardous waste, § 262.12 for obtaining an EPA identification number, § 262.34 for accumulation of hazardous waste, § 262.40 (c) and (d) for recordkeeping, § 262.43 for additional reporting and if applicable, § 262.51 for farmers.

(c) Any person who imports hazardous waste into the United States must comply with the standards applicable to generators established in this part.

(d) A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of § 262.51 is not required to comply with other standards in this Part or 40 CFR Parts 270, 264, or 265 with respect to such pesticides.

(e) A person who generates a hazardous waste as defined by 40 CFR Part 261 is subject to the compliance requirements and penalties prescribed in Section 3008 of the Act if he does not comply with the requirements of this part.

(f) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this part.

(NOTE: The provisions of § 262.34 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.)

NOTE: A generator who treats, stores, or disposes of hazardous waste on-site must

comply with the applicable standards and permit requirements set forth in 40 CFR Parts 264, 265, and 266 and Part 270.

[45 FR 33142, May 19, 1980, as amended at 45 FR 86970, Dec. 31, 1980; 47 FR 1251, Jan. 11, 1982; 48 FR 14294, Apr. 1, 1983]

§ 262.11 Hazardous waste determination.

A person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.

(b) He must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261.

NOTE: Even if the waste is listed, the generator still has an opportunity under 40 CFR 260.22 to demonstrate to the Administrator that the waste from his particular facility or operation is not a hazardous waste.

(c) If the waste is not listed as a hazardous waste in Subpart D of 40 CFR Part 261, he must determine whether the waste is identified in Subpart C of 40 CFR Part 261 by either:

(1) Testing the waste according to the methods set forth in Subpart C of 40 CFR Part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or
 (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

[45 FR 33142, May 19, 1980, as amended at 45 FR 76624, Nov. 19, 1980]

§ 262.12 EPA identification numbers.

(a) A generator must not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Administrator.

(b) A generator who has not received an EPA identification number may obtain one by applying to the Administrator using EPA form 8700-12. Upon receiving the request the Administrator will assign an EPA identification number to the generator.

(c) A generator must not offer his hazardous waste to transporters or to treatment, storage, or disposal facili-

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ties that have not received an EPA identification number.

Subpart B—The Manifest

§ 262.20 General requirements.

(a) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2000-0404 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the instructions included in the Appendix to Part 262.

(b) A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste.

[45 FR 33142, May 19, 1980, as amended at 49 FR 10500, Mar. 20, 1984]

EFFECTIVE DATE NOTE: At 49 FR 10500, Mar. 20, 1984, § 262.20(a) was revised, effective September 20, 1984. For the convenience of the user, the superseded text is set out below.

§ 262.20 General requirements.

(a) A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site.

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§ 262.21 Acquisition of manifests.

(a) If the State to which the shipment is manifested (consignment State) supplies the manifest and requires its use, then the generator must use that manifest.

(b) If the consignment State does not supply the manifest, but the State in which the generator is located (generator State) supplies the manifest

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and requires its use, then the generator must use that State's manifest.

(c) If neither the generator State nor the consignment State supplies the manifest, then the generator may obtain the manifest from any source.

[49 FR 10500, Mar. 20, 1984]

EFFECTIVE DATE NOTE: At 49 FR 10500, Mar. 20, 1984, § 262.21 was revised, effective September 20, 1984. For the convenience of the user, the superseded text is set out below.

§ 262.21 Required information.

(a) The manifest must contain all of the following information:

- (1) A manifest document number;
(2) The generator's name, mailing address, telephone number, and EPA identification number;
(3) The name and EPA identification number of each transporter;
(4) The name, address and EPA identification number of the designated facility and an alternate facility, if any;
(5) The description of the waste(s) (e.g., proper shipping name, etc.) required by regulations of the U.S. Department of Transportation in 49 CFR 172.101, 172.202, and 172.203;
(6) The total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle.

(b) The following certification must appear on the manifest: "This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the EPA."

§ 262.22 Number of copies.

The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

§ 262.23 Use of the manifest.

- (a) The generator must:
(1) Sign the manifest certification by hand; and
(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and
(3) Retain one copy, in accordance with § 262.40(a).

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(b) The generator must give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with this section to:

- (i) The next non-rail transporter, if any; or
(ii) The designated facility if transported solely by rail; or
(iii) The last rail transporter to handle the waste in the United States if exported by rail.

NOTE: See § 263.20(e) and (f) for special provisions for rail or water (bulk shipment) transporters.

[45 FR 33142, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980]

Subpart C—Pre-Transport Requirements

§ 262.30 Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR Parts 173, 178, and 179.

§ 262.31 Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172.

§ 262.32 Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address _____,
Manifest Document Number _____.

§ 262.33 Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR Part 172, Subpart F.

§ 262.34 Accumulation time.

(a) A generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that:

(1) The waste is placed in containers and the generator complies with Subpart I of 40 CFR Part 265, or the waste is placed in tanks and the generator complies with Subpart J of 40 CFR Part 265 except § 265.193;

(2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(4) The generator complies with the requirements for owners or operators

in Subparts C and D in 40 CFR Part 265 and with § 265.16.

(b) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270 unless he has been granted an extension to the 90-day period. Such extension may be granted by EPA if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Regional Administrator on a case-by-case basis.

[47 FR 1251, Jan. 11, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

Subpart D—Recordkeeping and Reporting

§ 262.40 Recordkeeping.

(a) A generator must keep a copy of each manifest signed in accordance with § 262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator must keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.

(c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with § 262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(d) The periods or retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

[45 FR 33142, May 19, 1980, as amended at 48 FR 3981, Jan. 28, 1983]

§ 262.41 Biennial report.

(a) A generator who ships his hazardous waste off-site must prepare and submit a single copy of a biennial

report to the Regional Administrator by March 1 of each even numbered year. The biennial report must be submitted on EPA Form 8700-13 A and must cover generator activities during the previous calendar year, and must include the following information:

(1) The EPA identification number, name, and address of the generator;

(2) The calendar year covered by the report;

(3) The EPA identification number, name, and address for each off-site treatment, storage, or disposal facility to which waste was shipped during the year; for exported shipments, the report must give the name and address of the foreign facility.

(4) The name and EPA identification number of each transporter used during the reporting year.

(5) A description, EPA hazardous waste number (from 40 CFR Part 261, Subpart C or D), DOT hazard class, and quantity of each hazardous waste shipped off-site. This information must be listed by EPA identification number of each off-site facility to which waste was shipped.

(6) The certification signed by the generator or his authorized representative.

(b) Any generator who treats, stores, or disposes of hazardous waste on-site must submit a biennial report covering those wastes in accordance with the provisions of 40 CFR Parts 270, 264, 265, and 266.

[48 FR 3981, Jan. 28, 1983, as amended at 48 FR 14294, Apr. 1, 1983]

§ 262.42 Exception reporting.

(a) A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.

(b) A generator must submit an Exception Report to the EPA Regional Administrator for the Region in which the generator is located if he has not received a copy of the manifest with the handwritten signature of the

owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:

(1) A legible copy of the manifest for which the generator does not have confirmation of delivery;

(2) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

§ 262.43 Additional reporting.

The Administrator, as he deems necessary under section 2002(a) and section 3002(6) of the Act, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in 40 CFR Part 261.

Subpart E—Special Conditions

§ 262.50 International shipments.

(a) Any person who exports hazardous waste to a foreign country or imports hazardous waste from a foreign country into the United States must comply with the requirements of this part and with the special requirements of this section.

(b) When shipping hazardous waste outside the United States, the generator must:

(1) Notify the Administrator in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year;

(i) The waste must be identified by its EPA hazardous waste identification number and its DOT shipping description;

(ii) The name and address of the foreign consignee must be included in this notice;

(iii) These notices must be sent to the Office of International Activities (A-106), United States Environmental Protection Agency, Washington, D.C. 20460.

NOTE: This requirement to notify will not be delegated to States authorized under 40 CFR Part 271. Therefore, all generators must notify the Administrator as required above.

(2) Require that the foreign consignee confirm the delivery of the waste in the foreign country. A copy of the manifest signed by the foreign consignee may be used for this purpose;

(3) Meet the requirements under § 262.20(a) for the manifest except that:

(i) In place of the name, address, and EPA identification number of the designated facility, the name and address of the foreign consignee must be used;

(ii) The generator must identify the point of departure from the United States through which the waste must travel before entering a foreign country.

(4) Obtain the manifest from the generator's State if that State supplies the manifest form and requires its use. If the generator's State does not supply the manifest form, then the generator may obtain the manifest form from any source.

(c) A generator must file an Exception Report, if:

(1) He has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date it was accepted by the initial transporter; or

(2) Within 90 days from the date the waste was accepted by the initial transporter, the generator has not received written confirmation from the foreign consignee that the hazardous waste was received.

(d) When importing hazardous waste, a person must meet all the requirements of § 262.20(a) for the manifest except that:

(1) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number must be used.

(2) In place of the generator's signature on the certification statement, the U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

(e) A person who imports hazardous waste must obtain the manifest form from the consignment State if that State supplies the manifest and requires its use. If the consignment

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State does not supply the manifest form, then the manifest form may be obtained from any source.

145 FR 33142, May 19, 1980, as amended at 48 FR 13028, Mar. 29, 1983; 48 FR 14294, Apr. 1, 1983; 49 FR 10500, Mar. 20, 1984

EFFECTIVE DATE NOTE: At 49 FR 10500, Mar. 20, 1984, § 262.50 (b)(3) and (d) introductory texts were revised, and (b)(4) and (e) were added, effective September 20, 1984. For the convenience of the user, the superseded text is set out below.

§ 262.50 International shipments.

(b)

(3) Meet the requirements under § 262.21 for the manifest, except that:

.

(d) When importing hazardous waste, a person must meet all requirements of § 262.21 for the manifest except that:

.

§ 262.51 Farmers.

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in this part or other standards in 40 CFR Parts 270, 264 or 265 for those wastes provided he triple rinses each emptied pesticide container in accordance with § 261.7(b)(3) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

[45 FR 33142, May 19, 1980, as amended at 45 FR 78529, Nov. 25, 1980; 48 FR 14294, Apr. 1, 1983]

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APPENDIX—UNIFORM HAZARDOUS WASTE MANIFEST AND INSTRUCTIONS (EPA FORMS 8700-22 AND 8700-22A AND THEIR INSTRUCTIONS)

U.S. EPA Form 8700-22

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to use this form (8700-22) and, if necessary, the continuation sheet (Form 8700-22A) for both inter and intrastate transportation.

Federal regulations also require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage and disposal facilities to complete the following information:

GENERATORS

Item 1. Generator's U.S. EPA ID Number—Manifest Document Number

Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) by the generator.

Item 2. Page 1 of —

Enter the total number of pages used to complete this Manifest, i.e., the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any.

Item 3. Generator's Name and Mailing Address

Enter the name and mailing address of the generator. The address should be the location that will manage the returned Manifest forms.

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No		Manifest Document No		2 Page 1 of		Information in the shaded areas is not required by Federal law.	
3 Generator's Name and Mailing Address				A State Manifest Document Number			
4 Generator's Phone				B State Generator's ID			
5 Transporter 1 Company Name		6 US EPA ID Number		C State Transporter's ID		D Transporter's Phone	
7 Transporter 2 Company Name		8 US EPA ID Number		E State Transporter's ID		F Transporter's Phone	
9 Designated Facility Name and Site Address				10 US EPA ID Number		G State Facility's ID	
				H Facility's Phone			
11 US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12 Containers No.	Type	13 Total Quantity	14 Unit (kg, lb, etc.)	15 Waste No.	
a							
b							
c							
d							
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above			
16 Special Handling Instructions and Additional Information							
18 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.							
Printed/Typed Name				Signature		Date Month Day Year	
17 Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Date Month Day Year	
18 Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Date Month Day Year	
19 Discrepancy Indication Space							
20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19							
Printed/Typed Name				Signature		Date Month Day Year	

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Item 4. Generator's Phone Number

Enter a telephone number where an authorized agent of the generator may be reached in the event of an emergency.

Item 5. Transporter 1 Company Name

Enter the company name of the first transporter who will transport the waste.

Item 6. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the first transporter identified in item 5.

Item 7. Transporter 2 Company Name

If applicable, enter the company name of the second transporter who will transport the waste. If more than two transporters are used to transport the waste, use a Continuation Sheet(s) (EPA Form 8700-22A) and list the transporters in the order they will be transporting the waste.

Item 8. U.S. EPA ID Number

If applicable, enter the U.S. EPA twelve digit identification number of the second transporter identified in item 7.

NOTE: If more than two transporters are used, enter each additional transporter's company name and U.S. EPA twelve digit identification number in items 24-27 on the Continuation Sheet (EPA Form 8700-22A). Each Continuation Sheet has space to record two additional transporters. Every transporter used between the generator and the designated facility must be listed.

Item 9. Designated Facility Name and Site Address

Enter the company name and site address of the facility designated to receive the waste listed on this Manifest. The address must be the site address, which may differ from the company mailing address.

Item 10. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the designated facility identified in item 9.

Item 11. U.S. DOT Description [Including Proper Shipping Name, Hazard Class, and ID Number (UN/NA)]

Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste as identified in 49 CFR 171 through 177.

NOTE: If additional space is needed for waste descriptions, enter these additional descriptions in item 28 on the Continuation Sheet (EPA Form 8700-22A).

Title 40—Protection of Environment**Item 12. Containers (No. and Type)**

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

Table I—Types of Containers

DM—Metal drums, barrels, kegs
 DW—Wooden drums, barrels, kegs
 DF—Fiberboard or plastic drums, barrels, kegs
 TP—Tanks portable
 TT—Cargo tanks (tank trucks)
 TC—Tank cars
 DT—Dump truck
 CY—Cylinders
 CM—Metal boxes, cartons, cases (including roll-offs)
 CW—Wooden boxes, cartons, cases
 CF—Fiber or plastic boxes, cartons, cases
 BA—Burlap, cloth, paper or plastic bags

Item 13. Total Quantity

Enter the total quantity of waste described on each line.

Item 14. Unit (Wt./Vol.)

Enter the appropriate abbreviation from Table II (below) for the unit of measure.

Table II—Units of Measure

G=Gallons (liquids only)
 P=Pounds
 T=Tons (2000 lbs)
 Y=Cubic yards
 L=Liters (liquids only)
 K=Kilograms
 M=Metric tons (1000 kg)
 N=Cubic meters

Item 15. Special Handling Instructions and Additional Information

Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States may not require additional, new, or different information in this space. For international shipments, generators must enter in this space the point of departure (City and State) for those shipments destined for treatment, storage, or disposal outside the jurisdiction of the United States.

Item 16. Generator's Certification

The generator must read, sign (by hand), and date the certification statement. If a mode *other than* highway is used, the word "highway" should be lined out and the appropriate mode (rail, water, or air) inserted in the space below. If another mode *in addition to* the highway mode is used, enter the appropriate additional mode (e.g., *and rail*) in the space below.

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NOTE: All of the above information except the handwritten signature required in item 16 may be preprinted.

TRANSPORTERS**Item 17. Transporter 1 Acknowledgement of Receipt of Materials**

Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Item 18. Transporter 2 Acknowledgement of Receipt of Materials

Enter, if applicable, the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

NOTE: International Shipments—Transporter Responsibilities.

Exports—Transporters must sign and enter the date the waste left the United States in item 15 of Form 8700-22.

Imports—Shipments of hazardous waste regulated by RCRA and transported into the United States from another country must upon entry be accompanied by the U.S. EPA Uniform Hazardous Waste Manifest. Transporters who transport hazardous waste into the United States from another country are responsible for completing the Manifest (40 CFR 263.10(c)(1)).

Owners and Operators of Treatment, Storage, or Disposal Facilities

Item 19. Discrepancy Indication Space

The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any significant discrepancy between the waste described on the Manifest and the waste actually received at the facility.

Owners and operators of facilities located in unauthorized States (i.e., the U.S. EPA administers the hazardous waste management program) who cannot resolve significant discrepancies within 15 days of receiving the waste must submit to their Regional Administrator (see list below) a letter with a copy of the Manifest at issue describing the

discrepancy and attempts to reconcile it (40 CFR 264.72 and 265.72).

Owners and operators of facilities located in authorized States (i.e., those States that have received authorization from the U.S. EPA to administer the hazardous waste program) should contact their State agency for information on State Discrepancy Report requirements.

EPA Regional Administrators

Regional Administrator, U.S. EPA Region I, J.F. Kennedy Fed. Bldg., Boston, MA 02203
 Regional Administrator, U.S. EPA Region II, 26 Federal Plaza, New York, NY 10278
 Regional Administrator, U.S. EPA Region III, 6th and Walnut Sts., Philadelphia, PA 19106
 Regional Administrator, U.S. EPA Region IV, 345 Courtland St., NE., Atlanta, GA 30365
 Regional Administrator, U.S. EPA Region V, 230 S. Dearborn St., Chicago, IL 60604
 Regional Administrator, U.S. EPA Region VI, 1201 Elm Street, Dallas, TX 75270
 Regional Administrator, U.S. EPA Region VII, 324 East 11th Street, Kansas City, MO 64108
 Regional Administrator, U.S. EPA Region VIII, 1860 Lincoln Street, Denver, CO 80295
 Regional Administrator, U.S. EPA Region IX, 215 Fremont Street, San Francisco, CA 94105
 Regional Administrator, U.S. EPA Region X, 1200 Sixth Avenue, Seattle, WA 98101

Item 20. Facility Owner or Operator. Certification of Receipt of Hazardous Materials Covered by This Manifest Except as Noted in Item 19

Print or type the name of the person accepting the waste on behalf of the owner or operator of the facility. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Items A-K are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items A-K as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the Manifest.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No. Manifest Document No. 22 Page

23 Generator's Name

24 Transporter Company Name 25 US EPA ID Number

26 Transporter Company Name 27 US EPA ID Number

28 US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

29 Containers

No.	Type	Total Quantity	U.S. DOT Vol.	U.S. DOT Wt.
a				
b				
c				
d				
e				
f				
g				
h				
i				

30 Additional Descriptions for Materials Listed Above

31 Handling Codes for Wastes Listed Above

32 Special Handling Instructions and Additional Information

33 Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date
Month	Day	Year

34 Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date
Month	Day	Year

35 Discrepancy Indication Space

EPA Form 8700-22A (3-84)

INSTRUCTIONS—CONTINUATION SHEET, U.S. EPA FORM 8700-22A

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

This form must be used as a continuation sheet to U.S. EPA Form 8700-22 if:

- More than two transporters are to be used to transport the waste;
- More space is required for the U.S. DOT description and related information in Item 11 of U.S. EPA Form 8700-22.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, or disposal facilities to use the uniform hazardous waste manifest (EPA Form 8700-22) and, if necessary, this continuation sheet (EPA Form 8700-22A) for both inter- and intrastate transportation.

GENERATORS

Item 21. Generator's U.S. EPA ID Number—Manifest Document Number

Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) as it appears in item 1 on the first page of the Manifest.

Item 22. Page —

Enter the page number of this Continuation Sheet.

Item 23. Generator's Name

Enter the generator's name as it appears in item 3 on the first page of the Manifest.

Item 24. Transporter — Company Name

If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word "Transporter" the order of the transporter. For example, Transporter 3 Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 25. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the transporter described in item 24.

Item 26. Transporter — Company Name

If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after

the word "Transporter" the order of the transporter. For example, Transporter 4 Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 27. U.S. EPA ID Number

Enter the U.S. EPA twelve digit identification number of the transporter described in item 26.

Item 28. U.S. DOT Description Including Proper Shipping Name, Hazardous Class, and ID Number (UN/NA)

Refer to item 11.

Item 29. Containers (No. and Type)

Refer to item 12.

Item 30. Total Quantity

Refer to item 13.

Item 31. Unit (WL/Vol.)

Refer to item 14.

Item 32. Special Handling Instructions

Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States are not authorized to require additional, new, or different information in this space.

TRANSPORTERS

Item 33. Transporter — Acknowledgement of Receipt of Materials

Enter the same number of the Transporter as identified in item 24. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in item 24. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Item 34. Transporter — Acknowledgement of Receipt of Materials

Enter the same number as identified in item 26. Enter also the name of the person accepting the waste on behalf of the transporter (Company Name) identified in item 26. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Owners and Operators of Treatment, Storage, or Disposal Facilities

Item 35. Discrepancy Indication Space

Refer to item 19.

Items L R are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items L R as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the manifest.

[49 FR 10501, Mar. 20, 1984]

EFFECTIVE DATE NOTE: Part 262, Appendix, becomes effective September 20, 1984.

PART 263—STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

Subpart A—General

Sec.

- 263.10 Scope.
- 263.11 EPA identification number.
- 263.12 Transfer facility requirements.

Subpart B—Compliance With the Manifest System and Recordkeeping

- 263.20 The manifest system.
- 263.21 Compliance with the manifest.
- 263.22 Recordkeeping.

Subpart C—Hazardous Waste Discharges

- 263.30 Immediate action.
- 263.31 Discharge clean up.

AUTHORITY: Sec. 2002(a), 3002, 3003, 3004 and 3005 of the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 and as amended by the Quiet Communities Act of 1978, (42 U.S.C. 6912, 6922, 6923, 6924, 6925).

SOURCE: 45 FR 33151, May 19, 1980, unless otherwise noted.

Subpart A—General

§ 263.10 Scope.

(a) These regulations establish standards which apply to persons transporting hazardous waste within the United States if the transportation requires a manifest under 40 CFR Part 262.

NOTE: The regulations set forth in Parts 262 and 263 establish the responsibilities of

generators and transporters of hazardous waste in the handling, transportation, and management of that waste. In these regulations, EPA has expressly adopted certain regulations of the Department of Transportation (DOT) governing the transportation of hazardous materials. These regulations concern, among other things, labeling, marking, placarding, using proper containers, and reporting discharges. EPA has expressly adopted these regulations in order to satisfy its statutory obligation to promulgate regulations which are necessary to protect human health and the environment in the transportation of hazardous waste. EPA's adoption of these DOT regulations ensures consistency with the requirements of DOT and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters. These EPA regulations which apply to both interstate and intrastate transportation of hazardous waste are enforceable by EPA.

DOT has revised its hazardous materials transportation regulations in order to encompass the transportation of hazardous waste and to regulate intrastate, as well as interstate, transportation of hazardous waste. Transporters of hazardous waste are cautioned that DOT's regulations are fully applicable to their activities and enforceable by DOT. These DOT regulations are codified in Title 49, Code of Federal Regulations, Subchapter C.

EPA and DOT worked together to develop standards for transporters of hazardous waste in order to avoid conflicting requirements. Except for transporters of bulk shipments of hazardous waste by water, a transporter who meets all applicable requirements of 49 CFR Parts 171 through 179 and the requirements of 40 CFR 263.11 and 263.31 will be deemed in compliance with this part. Regardless of DOT's action, EPA retains its authority to enforce these regulations.

(b) These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste must also comply with 40 CFR Part 262, Standards Applicable to Generators of Hazardous Waste, if he:

- (1) Transports hazardous waste into the United States from abroad; or
- (2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86968, Dec. 31, 1980]

§ 263.11 EPA identification number.

(a) A transporter must not transport hazardous wastes without having received an EPA identification number from the Administrator.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Administrator using EPA Form 8700-12. Upon receiving the request, the Administrator will assign an EPA identification number to the transporter.

§ 263.12 Transfer facility requirements.

A transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of § 262.30 at a transfer facility for a period of ten days or less is not subject to regulation under Parts 270, 264, and 265 of this chapter with respect to the storage of those wastes.

[45 FR 86968, Dec. 31, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

Subpart B—Compliance With the Manifest System and Recordkeeping

§ 263.20 The manifest system.

(a) A transporter may not accept hazardous waste from a generator unless it is accompanied by a manifest, signed by the generator in accordance with the provisions of 40 CFR Part 262.

(b) Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter must return a signed copy to the generator before leaving the generator's property.

(c) The transporter must ensure that the manifest accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility must:

- (1) Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and
- (2) Retain one copy of the manifest in accordance with § 263.22; and

(3) give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of paragraphs (c), (d) and (f) of this section do not apply to water (bulk shipment) transporters if:

(1) The hazardous waste is delivered by water (bulk shipment) to the designated facility; and

(2) A shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) accompanies the hazardous waste; and

(3) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) The person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

(5) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with § 263.22.

(f) For shipments involving rail transportation, the requirements of paragraphs (c), (d) and (e) do not apply and the following requirements do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:

- (i) Sign and date the manifest acknowledging acceptance of the hazardous waste;
- (ii) Return a signed copy of the manifest to the non-rail transporter;
- (iii) Forward at least three copies of the manifest to:

(A) The next non-rail transporter, if any; or,

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with § 263.22.

§ 263.21

(2) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) accompanies the hazardous waste at all times.

NOTE: Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with § 263.22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter must:

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with § 263.22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States must:

(1) Indicate on the manifest the date the hazardous waste left the United States; and

(2) Sign the manifest and retain one copy in accordance with § 263.22(c); and

(3) Return a signed copy of the manifest to the generator.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980]

§ 263.21 Compliance with the manifest.

(a) The transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

(1) The designated facility listed on the manifest; or

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(2) The alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(3) The next designated transporter; or

(4) The place outside the United States designated by the generator.

(b) If the hazardous waste cannot be delivered in accordance with paragraph (a) of this section, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

§ 263.22 Recordkeeping.

(a) A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in § 263.20(e)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

(i) The initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in § 263.20(f)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

(ii) The final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

NOTE: Intermediate rail transporters are not required to keep records pursuant to these regulations.

(d) A transporter who transports hazardous waste out of the United States must keep a copy of the manifest indicating that the hazardous

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waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

[45 FR 33151, May 19, 1980, as amended at 45 FR 86973, Dec. 31, 1980]

Subpart C—Hazardous Waste Discharges

§ 263.30 Immediate action.

(a) In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(b) If a discharge of hazardous waste occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must:

(1) Give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or 202-426-2675); and

(2) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

§ 263.31 Discharge clean up.

A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by Federal, State, or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Subpart A—General

- Sec.
- 264.1 Purpose, scope and applicability.
 - 264.2 [Reserved]
 - 264.3 Relationship to interim status standards.
 - 264.4 Imminent hazard action.

Subpart B—General Facility Standards

- 264.10 Applicability.
- 264.11 Identification number.
- 264.12 Required notices.
- 264.13 General waste analysis.
- 264.14 Security.
- 264.15 General inspection requirements.
- 264.16 Personnel training.
- 264.17 General requirements for ignitable, reactive, or incompatible wastes.
- 264.18 Location standards.

Subpart C—Preparedness and Prevention

- 264.30 Applicability.
- 264.31 Design and operation of facility.
- 264.32 Required equipment.
- 264.33 Testing and maintenance of equipment.
- 264.34 Access to communications or alarm system.
- 264.35 Required aisle space.
- 264.36 [Reserved]
- 264.37 Arrangements with local authorities.

Subpart D—Contingency Plan and Emergency Procedures

- 264.50 Applicability.
- 264.51 Purpose and implementation of contingency plan.
- 264.52 Content of contingency plan.
- 264.53 Copies of contingency plan.
- 264.54 Amendment of contingency plan.
- 264.55 Emergency coordinator.

- Sec.
264.56 Emergency procedures.
- Subpart E—Manifest System, Recordkeeping, and Reporting**
- 264.70 Applicability.
264.71 Use of manifest system.
264.72 Manifest discrepancies
264.73 Operating record.
264.74 Availability, retention, and disposition of records.
264.75 Biennial report.
264.76 Unmanifested waste report.
264.77 Additional reports.
- Subpart F—Ground-water Protection**
- 264.90 Applicability.
264.91 Required programs.
264.92 Ground-water protection standard.
264.93 Hazardous constituents.
264.94 Concentration limits.
264.95 Point of compliance.
264.96 Compliance period.
264.97 General ground-water monitoring requirements.
264.98 Detection monitoring program.
264.99 Compliance monitoring program.
264.100 Corrective action program.
264.101—264.109 [Reserved]
- Subpart G—Closure and Post-Closure**
- 264.110 Applicability.
264.111 Closure performance standard.
264.112 Closure plan; amendment of plan.
264.113 Closure; time allowed for closure.
264.114 Disposal or decontamination of equipment.
264.115 Certification of closure.
264.116 [Reserved]
264.117 Post-closure care and use of property.
264.118 Post-closure plan; amendment of plan.
264.119 Notice to local land authority.
264.120 Notice in deed to property.
- Subpart H—Financial Requirements**
- 264.140 Applicability.
264.141 Definitions of terms as used in this subpart.
264.142 Cost estimate for closure.
264.143 Financial assurance for closure.
264.144 Cost estimate for post-closure care.
264.145 Financial assurance for post-closure care.
264.146 Use of a mechanism for financial assurance of both closure and post-closure care.
264.147 Liability requirements.
264.148 Incapacity of owners or operators, guarantors, or financial institutions.
264.149 Use of State-required mechanisms.
264.150 State assumption of responsibility.

- Sec.
264.151 Wording of the instruments.
- Subpart I—Use and Management of Containers**
- 264.170 Applicability.
264.171 Condition of containers.
264.172 Compatibility of waste with container.
264.173 Management of containers.
264.174 Inspections.
264.175 Containment.
264.176 Special requirements for ignitable or reactive waste.
264.177 Special requirements for incompatible wastes.
264.178 Closure.
- Subpart J—Tanks**
- 264.190 Applicability.
264.191 Design of tanks.
264.192 General operating requirements.
264.193 [Reserved]
264.194 Inspections.
264.195—264.196 [Reserved]
264.197 Closure.
264.198 Special requirements for ignitable or reactive waste.
264.199 Special requirements for incompatible wastes.
- Subpart K—Surface Impoundments**
- 264.220 Applicability.
264.221 Design and operating requirements.
264.222 Double-lined surface impoundments: Exemption from Subpart F ground-water protection requirements.
264.223—264.225 [Reserved]
264.226 Monitoring and inspection.
264.227 Emergency repairs; contingency plans.
264.228 Closure and post-closure care.
264.229 Special requirements for ignitable or reactive waste.
264.230 Special requirements for incompatible wastes.
264.231—264.249 [Reserved]
- Subpart L—Waste Piles**
- 264.250 Applicability.
264.251 Design and operating requirements.
264.252 Double-lined piles: Exemption from Subpart F ground-water protection requirements.
264.253 Inspection of liners: Exemption from Subpart F ground-water protection requirements.
264.254 Monitoring and inspection.
264.255 [Reserved]
264.256 Special requirements for ignitable or reactive waste.

- Sec.
264.257 Special requirements for incompatible wastes.
264.258 Closure and post-closure care.
264.259—264.269 [Reserved]
- Subpart M—Land Treatment**
- 264.270 Applicability.
264.271 Treatment program.
264.272 Treatment demonstration.
264.273 Design and operating requirements.
264.274—264.275 [Reserved]
264.276 Food-chain crops.
264.277 [Reserved]
264.278 Unsaturated zone monitoring.
264.279 Recordkeeping.
264.280 Closure and post-closure care.
264.281 Special requirements for ignitable or reactive waste.
264.282 Special requirements for incompatible wastes.
264.283—264.299 [Reserved]
- Subpart N—Landfills**
- 264.300 Applicability.
264.301 Design and operating requirements.
264.302 Double-lined landfills: Exemption from Subpart F ground-water protection requirements.
264.303 Monitoring and inspection.
264.304—264.308 [Reserved]
264.309 Surveying and recordkeeping.
264.310 Closure and post-closure care.
264.311 [Reserved]
264.312 Special requirements for ignitable or reactive waste.
264.313 Special requirements for incompatible wastes.
264.314 Special requirements for liquid waste.
264.315 Special requirements for containers.
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APPENDIX I—RECORDKEEPING INSTRUCTIONS
APPENDIX II—III [RESERVED]
APPENDIX IV—COCHRAN'S APPROXIMATION TO THE BEHRENS-FISHER STUDENTS' T-TEST
APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE
APPENDIX VI—POLITICAL JURISDICTIONS IN WHICH COMPLIANCE WITH § 264.18(a) MUST BE DEMONSTRATED

AUTHORITY: Secs. 1006, 2002(a), 3004 and 3005 of the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6925), unless otherwise noted.

SOURCE: 45 FR 33221, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: The reporting or record-keeping provisions included in the final rule published at 47 FR 32274, July 26, 1982, will be submitted for approval to the Office of Management and Budget (OMB). They are not effective until OMB approval has been obtained. EPA will publish a notice of the effective date of the reporting and record-keeping provisions of this rule after it obtains OMB approval.

Subpart A—General

§ 264.1 Purpose, scope and applicability.

(a) The purpose of this part is to establish minimum national standards which define the acceptable management of hazardous waste.

(b) The standards in this part apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste, except as specifically provided otherwise in this part or Part 261 of this chapter.

(c) The requirements of this part apply to a person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act only to the extent they are included in a RCRA permit by rule granted to such a person under Part 270 of this chapter.

[Comment: These Part 264 regulations do apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.]

(d) The requirements of this part apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Con-

trol (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by § 144.14 of this chapter.

[Comment: These Part 264 regulations do apply to the above-ground treatment or storage of hazardous waste before it is injected underground.]

(e) The requirements of this part apply to the owner or operator of a POTW which treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Part 270 of this chapter.

(f) The requirements of this part do not apply to a person who treats, stores, or disposes of hazardous waste in a State with a RCRA hazardous waste program authorized under Subpart A of Part 271 of this chapter, or in a State authorized under Subpart B of Part 271 of this chapter for the component or components of Phase II interim authorization which correspond to the person's treatment, storage or disposal processes; except that this part will apply:

(1) As stated in paragraph (d) of this section, if the authorized State RCRA program does not cover disposal of hazardous waste by means of underground injection; and

(2) To a person who treats, stores or disposes of hazardous waste in a State authorized under Subpart A of Part 271 of this chapter, at a facility which was not covered by standards under this part when the State obtained authorization, and for which EPA promulgates standards under this part after the State is authorized. This paragraph will only apply until the State is authorized to permit such facilities under Subpart A of Part 271 of this chapter.

(g) The requirements of this part do not apply to:

(1) The owner or operator of a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this part by § 261.5 of this chapter;

(2) The owner or operator of a facility which treats or stores hazardous waste, which treatment or storage

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meets the criteria in § 261.6(a) of this chapter, except to the extent that § 261.6(b) of this chapter provides otherwise;

(3) A generator accumulating waste on-site in compliance with § 262.34 of this chapter;

(4) A farmer disposing of waste pesticides from his own use in compliance with § 262.51 of this chapter; or

(5) The owner or operator of a totally enclosed treatment facility, as defined in § 260.10.

(6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in § 260.10 of this chapter.

(7) [Reserved]

(8)(i) Except as provided in paragraph (g)(8)(ii) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this part must comply with all applicable requirements of Subparts C and D.

(iii) Any person who is covered by paragraph (g)(8)(i) of this section and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and Parts 122–124 of this chapter for those activities.

(9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less.

(10) The addition of absorbent material to waste in a container (as defined in § 260.10 of this chapter) or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §§ 264.17(b), 264.171, and 264.172 are complied with.

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[45 FR 33221, May 19, 1980, as amended at 45 FR 76075, Nov. 17, 1980; 45 FR 86968, Dec. 31, 1980; 46 FR 27460, May 20, 1981; 47 FR 8306, Feb. 25, 1982; 47 FR 32384, July 26, 1982; 48 FR 2511, Jan. 19, 1983; 48 FR 14294, Apr. 1, 1983]

§ 264.2 [Reserved]

§ 264.3 Relationship to interim status standards.

A facility owner or operator who has fully complied with the requirements for interim status—as defined in section 3005(e) of RCRA and regulations under § 270.70 of this chapter—must comply with the regulations specified in Part 265 of this chapter in lieu of the regulations in this part, until final administrative disposition of his permit application is made.

[Comment: As stated in section 3005(a) of RCRA, after the effective date of regulations under that section, i.e., Parts 270 and 124 of this chapter, the treatment, storage, or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility which meets certain conditions until final administrative disposition of the owner's or operator's permit application is made.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to section 7003 of RCRA.

Subpart B—General Facility Standards

§ 264.10 Applicability.

(a) The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as provided in § 264.1 and in paragraph (b) of this section.

(b) Section 264.18(b) applies only to facilities subject to regulation under Subparts I through O of this part.

[46 FR 2848, Jan. 12, 1981, as amended at 47 FR 32349, July 26, 1982]

§ 264.11 Identification number.

Every facility owner or operator must apply to EPA for an EPA identi-

fication number in accordance with the EPA notification procedures (45 FR 12746).

§ 264.12 Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this part and Part 270 of this chapter.

[Comment: An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.]
[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.13 General waste analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of this part or with the conditions of a permit issued under Part 270 and Part 124 of this chapter.

(2) The analysis may include data developed under Part 261 of this chap-

ter, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

[Comment: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by paragraph (a)(1) of this section. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

(3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(ii) For off-site facilities, when the results of the inspection required in paragraph (a)(4) of this section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a) of this section. He must keep this plan at the facility. At a minimum, the plan must specify:

(1) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's prop-

erties to comply with paragraph (a) of this section);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Appendix I of Part 261 of this chapter; or

(ii) An equivalent sampling method.

[Comment: See § 260.21 of this chapter for related discussion.]

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 264.17 and 264.341.

(c) For off-site facilities, the waste analysis plan required in paragraph (b) of this section must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

[Comment: Part 270 of this chapter requires that the waste analysis plan be submitted with Part B of the permit application.]

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 46 FR 7678, Jan. 23, 1981; 48 FR 14294, Apr. 1, 1983]

§ 264.14 Security.

(a) The owner or operator must prevent the unknowing entry, and mini-

mize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Regional Administrator that:

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this part.

[Comment: Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

(b) Unless the owner or operator has made a successful demonstration under paragraphs (a)(1) and (a)(2) of this section, a facility must have:

(1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

[Comment: The requirements of paragraph (b) of this section are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of paragraph (b)(1) or (b)(2) of this section.]

(c) Unless the owner or operator has made a successful demonstration under paragraphs (a)(1) and (a)(2) of this section, a sign with the legend, "Danger—Unauthorized Personnel Keep Out", must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any ap-

proach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

[Comment: See § 264.117(b) for discussion of security requirements at disposal facilities during the post-closure care period.]

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 48 FR 14294, Apr. 1, 1983]

§ 264.15 General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to—(1) release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He must keep this schedule at the facility.

(3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the

rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction of any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in §§ 264.174, 264.194, 264.226, 264.253, 264.254, 264.303, and 264.347, where applicable.

[*Comment:* Part 270 of this chapter requires the inspection schedule to be submitted with Part B of the permit application. EPA will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, EPA may modify or amend the schedule as may be necessary.]

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

[45 FR 33221, May 19, 1980, as amended at 47 FR 32350, July 26, 1982; 48 FR 14294, Apr. 1, 1983]

§ 264.16 Personnel training.

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in

the document required under paragraph (d)(3) of this section.

[*Comment:* Part 270 of this chapter requires that owners and operators submit with Part B of the RCRA permit application, an outline of the training program used (or to be used) at the facility and a brief description of how the training program is designed to meet actual job tasks.]

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

[45 FR 33221, May 19, 1980, as amended at 46 FR 2848, Jan. 12, 1981; 48 FR 14294, Apr. 1, 1983]

§ 264.17 General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this part, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility;

(5) Through other like means threaten human health or the environment.

(c) When required to comply with paragraph (a) or (b) of this section, the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in § 264.13), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

[46 FR 2848, Jan. 12, 1981]

§ 264.18 Location standards.

(a) *Seismic considerations.* (1) Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time.

(2) As used in paragraph (a)(1) of this section:

(i) "Fault" means a fracture along which rocks on one side have been displaced with respect to those on the other side.

(ii) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(iii) "Holocene" means the most recent epoch of the Quaternary

period, extending from the end of the Pleistocene to the present.

[*Comment:* Procedures for demonstrating compliance with this standard in Part B of the permit application are specified in § 270.14(b)(11). Facilities which are located in political jurisdictions other than those listed in Appendix VI of this part, are assumed to be in compliance with this requirement.]

(b) **Floodplains.** (1) A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout or any hazardous waste by a 100-year flood, *unless* the owner or operator can demonstrate to the Regional Administrator's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

(ii) For existing surface impoundments, waste piles, land treatment units, and landfills, no adverse effects on human health or the environment will result if washout occurs, considering:

(A) The volume and physical and chemical characteristics of the waste in the facility;

(B) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(C) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(D) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

[*Comment:* The location where wastes are moved must be a facility which is either permitted by EPA under Part 270 of this chapter, authorized to manage hazardous waste by a State with a hazardous waste management program authorized under Part 271 of this chapter, or in interim status under Parts 270 and 265 of this chapter.]

(2) As used in paragraph (b)(1) of this section:

(i) "100-year floodplain" means any land area which is subject to a one

percent or greater chance of flooding in any given year from any source.

(ii) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) "100-year flood" means a flood that has a one percent chance of being equalled or exceeded in any given year.

[*Comment:* (1) Requirements pertaining to other Federal laws which affect the location and permitting of facilities are found in § 270.3 of this chapter. For details relative to these laws, see EPA's manual for SEA (special environmental area) requirements for hazardous waste facility permits. Through EPA is responsible for complying with these requirements, applicants are advised to consider them in planning the location of a facility to help prevent subsequent project delays.]

[46 FR 2848, Jan. 12, 1981, as amended at 47 FR 32350, July 26, 1982; 48 FR 14294, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

Subpart C—Preparedness and Prevention

§ 264.30 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 264.1 provides otherwise.

§ 264.31 Design and operation of facility.

Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

§ 264.32 Required equipment.

All facilities must be equipped with the following, *unless* it can be demonstrated to the Regional Administrator that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of

operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

[*Comment:* Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.33 Testing and maintenance of equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

§ 264.34 Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, *unless* the Regional Administrator has ruled that such a device is not required under § 264.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, *unless* the Regional Administrator has ruled that such a device is not required under § 264.32.

§ 264.35 Required aisle space.

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, *unless* it can be demonstrated to the Regional Administrator that aisle space is not needed for any of these purposes.

[*Comment:* Part 270 of this chapter requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.36 [Reserved]

§ 264.37 Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrange-

ments, the owner or operator must document the refusal in the operating record.

Subpart D—Contingency Plan and Emergency Procedures

§ 264.50 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 264.1 provides otherwise.

§ 264.51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

§ 264.52 Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with §§ 264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 of this chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.

(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to § 264.37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see § 264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

[45 FR 33221, May 19, 1980, as amended at 46 FR 27480, May 20, 1981]

§ 264.53 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

- (a) Maintained at the facility; and
- (b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

[Comment: The contingency plan must be submitted to the Regional Administrator with Part B of the permit application under Part 270, of this chapter and, after modification or approval, will become a condition of any permit issued.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 30115, June 30, 1983]

§ 264.54 Amendment of contingency plan.

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

- (a) The facility permit is revised;
- (b) The plan fails in an emergency;
- (c) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (d) The list of emergency coordinators changes; or
- (e) The list of emergency equipment changes.

[Comment: A change in the lists of facility emergency coordinators or equipment in the contingency plan constitutes a minor modification to the facility permit to which the plan is a condition.]

§ 264.55 Emergency coordinator.

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

[Comment: The emergency coordinator's responsibilities are more fully spelled out in § 264.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.]

§ 264.56 Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

- (1) Activate internal facility alarms or communication systems, where ap-

plicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under Part 1510 of this Title) or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

- (i) Name and telephone number of reporter;
- (ii) Name and address of facility;
- (iii) Time and type of incident (e.g., release, fire);
- (iv) Name and quantity of material(s) involved, to the extent known;
- (v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

[Comment: Unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 264 of this Chapter.]

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the inci-

dent, he must submit a written report on the incident to the Regional Administrator. The report must include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

Subpart E—Manifest System, Recordkeeping, and Reporting

§ 264.70 Applicability.

The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 264.1 provides otherwise. Sections 264.71, 264.72, and 264.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

§ 264.71 Use of manifest system.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest (as defined in § 264.72(a)) on each copy of the manifest;

[Comment: The Agency does not intend that the owner or operator of a facility whose procedures under § 264.13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Section 264.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in § 264.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper.

[Comment: The Agency does not intend that the owner or operator of a facility whose procedures under § 264.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 264.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

[Comment: Section 262.23(c) of this chapter requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).]

(5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of Part 262 of this chapter.

[Comment: The provisions of § 262.34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.]

[45 FR 33221, May 19, 1980, as amended at 45 FR 86970, 86974, Dec. 31, 1980]

§ 264.72 Manifest discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) For bulk waste, variations greater than 10 percent in weight, and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

§ 264.73 Operating record.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treat-

ment, storage, or disposal at the facility as required by Appendix I;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

[Comment: See § 264.119 for related requirements.]

(3) Records and results of waste analyses performed as specified in §§ 264.13, 264.17, and 264.341;

(4) Summary reports and details of all incidents that require implementation of the contingency plan as specified in § 264.56(j);

(5) Records and results of inspections as required by § 264.15(d) (except these data need be kept only three years);

(6) Monitoring, testing, or analytical data where required by Subpart F and §§ 264.226, 264.253, 264.254, 264.276, 264.278, 264.280, 264.303, 264.309, and 264.347;

(7) For off-site facilities, notices to generators as specified in § 264.12(b); and

(8) All closure cost estimates under § 264.142, and, for disposal facilities, all post-closure cost estimates under § 264.144.

[45 FR 33221, May 19, 1980, as amended at 46 FR 2849, Jan. 12, 1981; 46 FR 7678, Jan. 23, 1981; 47 FR 32350, July 26, 1982]

§ 264.74 Availability, retention, and disposition of records.

(a) All records, including plans, required under this part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator.

(b) The retention period for all records required under this Part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator.

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(c) A copy of records of waste disposal locations and quantities under § 264.73(b)(2) must be submitted to the Regional Administrator and local land authority upon closure of the facility.

§ 264.75 Biennial report.

The owner or operator must prepare and submit a single copy of a biennial report to the Regional Administrator by March 1 of each even numbered year. The biennial report must be submitted on EPA form 8700-13B. The report must cover facility activities during the previous calendar year and must include:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) [Reserved]

(g) The most recent closure cost estimate under § 264.142, and, for disposal facilities, the most recent post-closure cost estimate under § 264.144; and

(h) The certification signed by the owner or operator of the facility or his authorized representative.

[45 FR 33221, May 19, 1980, as amended at 46 FR 2849, Jan. 12, 1981; 48 FR 3982, Jan. 28, 1983]

§ 264.76 Unmanifested waste report.

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in § 263.20(e)(2) of this Chapter, and if the waste is not excluded from the manifest requirement

Chapter I—Environmental Protection Agency

Subpart F—Ground-water Protection

SOURCE: 47 FR 32350, July 26, 1982, unless otherwise noted.

§ 264.90 Applicability.

(a) Except as provided in paragraph (b) of this section, the regulations in this subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in surface impoundments, waste piles, land treatment units, or landfills. The owner or operator must satisfy the requirements of this subpart for all wastes (or constituents thereof) contained in any such waste management unit at the facility that receives hazardous waste after the effective date of this subpart (hereinafter referred to as a "regulated unit"). Any waste or waste constituent migrating beyond the waste management area under § 264.95(b) is assumed to originate from a regulated unit unless the Regional Administrator finds that such waste or waste constituent originated from another source.

(b) The owner or operator is not subject to regulation under this subpart if:

- (1) He is exempted under § 264.1;
- (2) He designs and operates a surface impoundment in compliance with § 264.222, a pile in compliance with § 264.250(c), § 264.252, or § 264.253, or a landfill in compliance with § 264.302;
- (3) The Regional Administrator finds, pursuant to § 264.280(d), that the treatment zone of a land treatment unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of § 264.278 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under this paragraph can only relieve an owner or operator of responsibility to meet the requirements of this subpart during the post-closure care period; or
- (4) The Regional Administrator finds that there is no potential for migration of liquid from a regulated unit

by § 261.5 of this Chapter, then the owner or operator must prepare and submit a single copy of a report to the Regional Administrator within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated 'Unmanifested Waste Report' and include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste and facility received;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

[Comment: Small quantities of hazardous waste are excluded from regulation under this Part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the Agency suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the Agency suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.]

[45 FR 33221, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

§ 264.77 Additional reports.

In addition to submitting the biennial reports and unmanifested waste reports described in §§ 264.75 and 264.76, the owner or operator must also report to the Regional Administrator:

(a) Releases, fires, and explosions as specified in § 264.56(j);

(b) Facility closures specified in § 264.115; and

(c) As otherwise required by Subparts F and K—N.

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32350, July 26, 1982; 48 FR 3982, Jan. 28, 1983]

to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under § 264.117. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration.

(c) The regulations under this subpart apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this subpart:

(1) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsols are removed or decontaminated at closure;

(2) Apply during the post-closure care period under § 264.117 if the owner or operator is conducting a detection monitoring program under § 264.98; or

(3) Apply during the compliance period under § 264.96 if the owner or operator is conducting a compliance monitoring program under § 264.99 or a corrective action program under § 264.100.

§ 264.91 Required programs.

(a) Owners and operators subject to this subpart must conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under § 264.93 from a regulated unit are detected at the compliance point under § 264.95, the owner or operator must institute a compliance monitoring program under § 264.99;

(2) Whenever the ground-water protection standard under § 264.92 is exceeded, the owner or operator must institute a corrective action program under § 264.100;

(3) Whenever hazardous constituents under § 264.93 from a regulated unit exceed concentration limits under § 264.94 in ground water between the compliance point under § 264.95 and the downgradient facility property boundary, the owner or operator must

institute a corrective action program under § 264.100; or

(4) In all other cases, the owner or operator must institute a detection monitoring program under § 264.98.

(b) The Regional Administrator will specify in the facility permit the specific elements of the monitoring and response program. The Regional Administrator may include one or more of the programs identified in paragraph (a) of this section in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Regional Administrator will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

§ 264.92 Ground-water protection standard.

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under § 264.93 entering the ground water from a regulated unit do not exceed the concentration limits under § 264.94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under § 264.95 during the compliance period under § 264.96. The Regional Administrator will establish this ground-water protection standard in the facility permit when hazardous constituents have entered the ground water from a regulated unit.

§ 264.93 Hazardous constituents.

(a) The Regional Administrator will specify in the facility permit the hazardous constituents to which the ground-water protection standard of § 264.92 applies. Hazardous constituents are constituents identified in Appendix VIII of Part 261 of this chapter that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are

reasonably expected to be in or derived from waste contained in a regulated unit, unless the Regional Administrator has excluded them under paragraph (b) of this section.

(b) The Regional Administrator will exclude an Appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Regional Administrator will consider the following:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) of this section about the use of ground water in the area around the facility, the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under § 144.8 of this chapter.

147 FR 32350, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983

§ 264.94 Concentration limits.

(a) The Regional Administrator will specify in the facility permit concentration limits in the ground water for hazardous constituents established under § 264.93. The concentration of a hazardous constituent:

(1) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(2) For any of the constituents listed in Table 1, must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or

(3) Must not exceed an alternate limit established by the Regional Administrator under paragraph (b) of this section.

(b) The Regional Administrator will establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In es-

establishing alternate concentration limits, the Regional Administrator will consider the following factors:

(1) Potential adverse effects on ground-water quality, considering:

TABLE 1—MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUND-WATER PROTECTION

Constituent	Maximum concentration ¹
Arsenic.....	0.05
Barium.....	1.0
Cadmium.....	0.01
Chromium.....	0.05
Lead.....	0.05
Mercury.....	0.002
Selenium.....	0.01
Silver.....	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo-5,8-dimethano naphthaleno)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane)	0.1
Toxaphens (C ₁₂ H ₈ Cl ₆ , Technical chlorinated compound, 57-69 percent chlorines)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

¹ Milligrams per liter.

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) of this section about the use of ground water in the area around the facility the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under § 144.8 of this chapter.

[47 FR 32350, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.95 Point of compliance.

(a) The Regional Administrator will specify in the facility permit the point of compliance at which the ground-water protection standard of § 264.92 applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal

plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

§ 264.96 Compliance period.

(a) The Regional Administrator will specify in the facility permit the compliance period during which the ground-water protection standard of § 264.92 applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period.)

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of § 264.99.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in paragraph (a) of this section, the compliance period is extended until the owner or operator can demonstrate that the ground-water protection standard of § 264.92 has not been exceeded for a period of three consecutive years.

§ 264.97 General ground-water monitoring requirements.

The owner or operator must comply with the following requirements for any ground-water monitoring program developed to satisfy § 264.98, § 264.99, or § 264.100:

(a) The ground-water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground-water samples from the uppermost aquifer that:

(1) Represent the quality of background water that has not been affected by leakage from a regulated unit; and

(2) Represent the quality of ground water passing the point of compliance.

(b) If a facility contains more than one regulated unit, separate ground-water monitoring systems are not required for each regulated unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground-water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water.

(d) The ground-water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground-water quality below the waste management area. At a minimum the program must include procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures; and
- (4) Chain of custody control.

(e) The ground-water monitoring program must include sampling and analytical methods that are appropriate for ground-water sampling and that accurately measure hazardous constituents in ground-water samples.

(f) The ground-water monitoring program must include a determination of the ground-water surface elevation each time ground water is sampled.

(g) Where appropriate, the ground-water monitoring program must establish background ground-water quality for each of the hazardous constituents or monitoring parameters or constituents specified in the permit.

(1) In the detection monitoring program under § 264.98, background ground-water quality for a monitoring parameter or constituent must be based on data from quarterly sampling

of wells upgradient from the waste management area for one year.

(2) In the compliance monitoring program under § 264.99, background ground-water quality for a hazardous constituent must be based on data from upgradient wells that:

(i) Is available before the permit is issued;

(ii) Accounts for measurement errors in sampling and analysis; and

(iii) Accounts, to the extent feasible, for seasonal fluctuations in background ground-water quality if such fluctuations are expected to affect the concentration of the hazardous constituent.

(3) Background quality may be based on sampling of wells that are not upgradient from the waste management area where:

(i) Hydrogeologic conditions do not allow the owner or operator to determine what wells are upgradient; or

(ii) Sampling at other wells will provide an indication of background ground-water quality that is as representative or more representative than that provided by the upgradient wells.

(4) In developing the data base used to determine a background value for each parameter or constituent, the owner or operator must take a minimum of one sample from each well and a minimum of four samples from the entire system used to determine background ground-water quality, each time the system is sampled.

(h) The owner or operator must use the following statistical procedure in determining whether background values or concentration limits have been exceeded:

(1) If, in a detection monitoring program, the level of a constituent at the compliance point is to be compared to the constituent's background value and that background value has a sample coefficient of variation less than 1.00:

(i) The owner or operator must take at least four portions from a sample at each well at the compliance point and determine whether the difference between the mean of the constituent at each well (using all portions taken) and the background value for the constituent is significant at the 0.05 level using the Cochran's Approximation to

the Behrens-Fisher Student's t-test as described in Appendix IV of this part. If the test indicates that the difference is significant, the owner or operator must repeat the same procedure (with at least the same number of portions as used in the first test) with a fresh sample from the monitoring well. If this second round of analyses indicates that the difference is significant, the owner or operator must conclude that a statistically significant change has occurred; or

(ii) The owner or operator may use an equivalent statistical procedure for determining whether a statistically significant change has occurred. The Regional Administrator will specify such a procedure in the facility permit if he finds that the alternative procedure reasonably balances the probability of falsely identifying a non-contaminating regulated unit and the probability of failing to identify a contaminating regulated unit in a manner that is comparable to that of the statistical procedure described in paragraph (h)(1)(i) of this section.

(2) In all other situations in a detection monitoring program and in a compliance monitoring program, the owner or operator must use a statistical procedure providing reasonable confidence that the migration of hazardous constituents from a regulated unit into and through the aquifer will be indicated. The Regional Administrator will specify a statistical procedure in the facility permit that he finds:

(i) Is appropriate for the distribution of the data used to establish background values or concentration limits; and

(ii) Provides a reasonable balance between the probability of falsely identifying a non-contaminating regulated unit and the probability of failing to identify a contaminating regulated unit.

§ 264.98 Detection monitoring program.

An owner or operator required to establish a detection monitoring program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Regional Administrator will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(1) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(2) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(3) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground-water background.

(b) The owner or operator must install a ground-water monitoring system at the compliance point as specified under § 264.95. The ground-water monitoring system must comply with § 264.97(a)(2), (b), and (c).

(c) The owner or operator must establish a background value for each monitoring parameter or constituent specified in the permit pursuant to paragraph (a) of this section. The permit will specify the background values for each parameter or specify the procedures to be used to calculate the background values.

(1) The owner or operator must comply with § 264.97(g) in developing the data base used to determine background values.

(2) The owner or operator must express background values in a form necessary for the determination of statistically significant increases under § 264.97(h).

(3) In taking samples used in the determination of background values, the owner or operator must use a ground-water monitoring system that complies with § 264.97(a)(1), (b), and (c).

(d) The owner or operator must determine ground-water quality at each monitoring well at the compliance

point at least semi-annually during the active life of a regulated unit (including the closure period) and the post-closure care period. The owner or operator must express the ground-water quality at each monitoring well in a form necessary for the determination of statistically significant increases under § 264.97(h).

(e) The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator must use procedures and methods for sampling and analysis that meet the requirements of § 264.97 (d) and (e).

(g) The owner or operator must determine whether there is a statistically significant increase over background values for any parameter or constituent specified in the permit pursuant to paragraph (a) of this section each time he determines ground-water quality at the compliance point under paragraph (d) of this section.

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground-water quality at each monitoring well at the compliance point for each parameter or constituent to the background value for that parameter or constituent, according to the statistical procedure specified in the permit under § 264.97(h).

(2) The owner or operator must determine whether there has been a statistically significant increase at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Regional Administrator will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(h) If the owner or operator determines, pursuant to paragraph (g) of this section, that there is a statistically significant increase for parameters or constituents specified pursuant to paragraph (a) of this section at any monitoring well at the compliance point, he must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indi-

cate what parameters or constituents have shown statistically significant increases;

(2) Immediately sample the ground water in all monitoring wells and determine the concentration of all constituents identified in Appendix VIII of Part 261 of this chapter that are present in ground water;

(3) Establish a background value for each Appendix VIII constituent that has been found at the compliance point under paragraph (h)(2) of this section, as follows:

(i) The owner or operator must comply with § 264.97(g) in developing the data base used to determine background values;

(ii) The owner or operator must express background values in a form necessary for the determination of statistically significant increases under § 264.97(h); and

(iii) In taking samples used in the determination of background values, the owner or operator must use a ground-water monitoring system that complies with § 264.97(a)(1), (b), and (c);

(4) Within 90 days, submit to the Regional Administrator an application for a permit modification to establish a compliance monitoring program meeting the requirements of § 264.99. The application must include the following information:

(i) An identification of the concentration of any Appendix VIII constituents found in the ground water at each monitoring well at the compliance point;

(ii) Any proposed changes to the ground-water monitoring system at the facility necessary to meet the requirements of § 264.99;

(iii) Any proposed changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical procedures used at the facility necessary to meet the requirements of § 264.99;

(iv) For each hazardous constituent found at the compliance point, a proposed concentration limit under § 264.94(a)(1) or (2), or a notice of intent to seek a variance under § 264.94(b); and

(5) Within 180 days, submit to the Regional Administrator:

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(i) All data necessary to justify any variance sought under § 264.94(b); and

(ii) An engineering feasibility plan for a corrective action program necessary to meet the requirements of § 264.100, unless:

(A) All hazardous constituents identified under paragraph (h)(2) of this section are listed in Table 1 of § 264.94 and their concentrations do not exceed the respective values given in that Table; or

(B) The owner or operator has sought a variance under § 264.94(b) for every hazardous constituent identified under paragraph (h)(2) of this section.

(i) If the owner or operator determines, pursuant to paragraph (g) of this section, that there is a statistically significant increase of parameters or constituents specified pursuant to paragraph (a) of this section at any monitoring well at the compliance point, he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under paragraph (h)(4) of this section, he is not relieved of the requirement to submit a permit modification application within the time specified in paragraph (h)(4) of this section unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this paragraph, the owner or operator must:

(1) Notify the Regional Administrator in writing within seven days of determining a statistically significant increase at the compliance point that he intends to make a demonstration under this paragraph;

(2) Within 90 days, submit a report to the Regional Administrator which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation;

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(3) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility; and

(4) Continue to monitor in accordance with the detection monitoring program established under this section.

(j) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(k) The owner or operator must assure that monitoring and corrective action measures necessary to achieve compliance with the ground-water protection standard under § 264.92 are taken during the term of the permit.

§ 264.99 Compliance monitoring program.

An owner or operator required to establish a compliance monitoring program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground-water protection standard under § 264.92. The Regional Administrator will specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under § 264.93;

(2) Concentration limits under § 264.94 for each of those hazardous constituents;

(3) The compliance point under § 264.95; and

(4) The compliance period under § 264.96.

(b) The owner or operator must install a ground-water monitoring system at the compliance point as specified under § 264.95. The ground-water monitoring system must comply with § 264.97(a)(2), (b), and (c).

(c) Where a concentration limit established under paragraph (a)(2) of this section is based on background ground-water quality, the Regional Administrator will specify the concentration limit in the permit as follows:

(1) If there is a high temporal correlation between upgradient and compliance point concentrations of the hazardous constituents, the owner or operator may establish the concentration limit through sampling at upgradient wells each time ground water is sampled at the compliance point. The Regional Administrator will specify the procedures used for determining the concentration limit in this manner in the permit. In all other cases, the concentration limit will be the mean of the pooled data on the concentration of the hazardous constituent.

(2) If a hazardous constituent is identified on Table 1 under § 264.94 and the difference between the respective concentration limit in Table 1 and the background value of that constituent under § 264.97(g) is not statistically significant, the owner or operator must use the background value of the constituent as the concentration limit. In determining whether this difference is statistically significant, the owner or operator must use a statistical procedure providing reasonable confidence that a real difference will be indicated. The statistical procedure must:

(i) Be appropriate for the distribution of the data used to establish background values; and

(ii) Provide a reasonable balance between the probability of falsely identifying a significant difference and the probability of failing to identify a significant difference.

(3) The owner or operator must:

(i) Comply with § 264.97(g) in developing the data base used to determine background values;

(ii) Express background values in a form necessary for the determination of statistically significant increases under § 264.97(h); and

(iii) Use a ground-water monitoring system that complies with § 264.97(a)(1), (b), and (c).

(d) The owner or operator must determine the concentration of hazardous constituents in ground water at each monitoring well at the compliance point at least quarterly during the compliance period. The owner or operator must express the concentration at each monitoring well in a form necessary for the determination of sta-

tistically significant increases under § 264.97(h).

(e) The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix VIII of Part 261 of this chapter at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer. If the owner or operator finds Appendix VIII constituents in the ground water that are not identified in the permit as hazardous constituents, the owner or operator must report the concentrations of these additional constituents to the Regional Administrator within seven days after completion of the analysis.

(g) The owner or operator must use procedures and methods for sampling and analysis that meet the requirements of § 264.97(d) and (e).

(h) The owner or operator must determine whether there is a statistically significant increase over the concentration limits for any hazardous constituents specified in the permit pursuant to paragraph (a) of this section each time he determines the concentration of hazardous constituents in ground water at the compliance point.

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground-water quality at each monitoring well at the compliance point for each hazardous constituent to the concentration limit for that constituent according to the statistical procedures specified in the permit under § 264.97(h).

(2) The owner or operator must determine whether there has been a statistically significant increase at each monitoring well at the compliance point, within a reasonable time period after completion of sampling. The Regional Administrator will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(i) If the owner or operator determines, pursuant to paragraph (h) of

this section, that the ground-water protection standard is being exceeded at any monitoring well at the point of compliance, he must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

(2) Submit to the Regional Administrator an application for a permit modification to establish a corrective action program meeting the requirements of § 264.100 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Regional Administrator under § 264.98(h)(5). The application must at a minimum include the following information:

(i) A detailed description of corrective actions that will achieve compliance with the ground-water protection standard specified in the permit under paragraph (a) of this section; and

(ii) A plan for a ground-water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground-water monitoring program may be based on a compliance monitoring program developed to meet the requirements of this section.

(j) If the owner or operator determines, pursuant to paragraph (h) of this section, that the ground-water protection standard is being exceeded at any monitoring well at the point of compliance, he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis or evaluation. While the owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under paragraph (1)(2) of this section, he is not relieved of the requirement to submit a permit modification application within the time specified in paragraph (1)(2) of this section unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration

under this paragraph, the owner or operator must:

(1) Notify the Regional Administrator in writing within seven days that he intends to make a demonstration under this paragraph;

(2) Within 90 days, submit a report to the Regional Administrator which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(4) Continue to monitor in accord with the compliance monitoring program established under this section.

(k) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(l) The owner or operator must assure that monitoring and corrective action measures necessary to achieve compliance with the ground-water protection standard under § 264.92 are taken during the term of the permit.

§ 264.100 Corrective action program.

An owner or operator required to establish a corrective action program under this subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the ground-water protection standard under § 264.92. The Regional Administrator will specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under § 264.93;

(2) Concentration limits under § 264.94 for each of those hazardous constituents;

(3) The compliance point under § 264.95; and

(4) The compliance period under § 264.96.

(b) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the ground-water protection standard is exceeded. The Regional Administrator will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of § 264.99(i)(2).

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a ground-water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under § 264.99 and must be as effective as that program in determining compliance with the ground-water protection standard under § 264.92 and in determining the success of a corrective action program under paragraph (e) of this section, where appropriate.

(e) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under § 264.93 that exceed concentration limits under § 264.94 in ground water between the compliance point under § 264.95 and the downgradient facility property boundary. The permit will specify the measures to be taken.

(1) Corrective action measures under this paragraph must be initiated and completed within a reasonable period of time considering the extent of contamination.

(2) Corrective action measures under this paragraph may be terminated

once the concentration of hazardous constituents under § 264.93 is reduced to levels below their respective concentration limits under § 264.94.

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the ground-water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the ground-water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the ground-water monitoring program under paragraph (d) of this section, that the ground-water protection standard of § 264.92 has not been exceeded for a period of three consecutive years.

(g) The owner or operator must report in writing to the Regional Administrator on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

§§ 264.101—264.109 [Reserved]

Subpart G—Closure and Post-Closure

Source: 46 FR 2849, Jan. 12, 1981, unless otherwise noted.

§ 264.110 Applicability.

Except as § 264.1 provides otherwise: (a) Sections 264.111—264.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 264.117—264.120 (which concern post-closure care) apply to the owners and operators of:

(1) All hazardous waste disposal facilities; and

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(2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in §§ 264.228 and 264.258.

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32356, July 26, 1982]

§ 264.111 Closure performance standard.

The owner or operator must close the facility in a manner that:

(a) Minimizes the need for further maintenance, and

(b) Controls, minimizes or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere.

§ 264.112 Closure plan; amendment of plan.

(a) The owner or operator of a hazardous waste management facility must have a written closure plan. The plan must be submitted with the permit application, in accordance with § 270.14(b)(13) of this chapter, and approved by the Regional Administrator as part of the permit issuance proceeding under Part 124 of this chapter. In accordance with § 122.29 of this chapter, the approved closure plan will become a condition of any RCRA permit. The Regional Administrator's decision must assure that that approved closure plan is consistent with §§ 264.111, 264.113, 264.114, 264.115, and the applicable requirements of §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351. A copy of the approved plan and all revisions to the plan must be kept at the facility until closure is completed and certified in accordance with § 264.115. The plan must identify steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life. The closure plan must include, at least:

(1) A description of how and when the facility will be partially closed, if

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applicable, and finally closed. The description must identify the maximum extent of the operation which will be unclosed during the life of the facility, and how the requirements of §§ 264.111, 264.113, 264.114, 264.115, and the applicable closure requirements of §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351 will be met;

(2) An estimate of the maximum inventory of wastes in storage and in treatment at any time during the life of the facility. (Any change in this estimate is a minor modification under § 270.42);

(3) A description of the steps needed to decontaminate facility equipment during closure; and

(4) An estimate of the expected year of closure and a schedule for final closure. The schedule must include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure. (For example, in the case of a landfill, estimates of the time required to treat and dispose of all waste inventory and of the time required to place a final cover must be included.)

(b) The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator must amend the plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure. When the owner or operator requests a permit modification to authorize a change in operating plans or facility design, he must request a modification of the closure plan at the same time (see § 124.5(a)). If a permit modification is not needed to authorize the change in operating plans or facility design, the request for modification of the closure plan must be made within 60 days after the change in plans or design occurs.

[Comment: Changes in estimates of maximum inventory and of the estimated year of closure under § 264.112(a) (2) and (4) may be made as minor permit modifications under § 270.42(c)]

(c) The owner or operator must notify the Regional Administrator at least 180 days prior to the date he expects to begin closure.

[Comment: The date when he "expects to begin closure" should be within 30 days after the date on which he expects to receive the final volume of wastes. If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or compliance order under Section 3008 of RCRA, to cease receiving wastes or to close, then the requirement of this paragraph does not apply. However, the owner or operator must close the facility in accordance with the deadlines established in § 264.113]

(Secs. 1006, 2002(a), 3004, 3005, and 3007 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6905, 6912(a), 6924, 6925 and 6927)

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32356, July 26, 1982; 48 FR 14294, Apr. 1, 1983]

§ 264.113 Closure; time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, the owner or operator must treat, remove from the site, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Regional Administrator may approve a longer period if the owner or operator demonstrates that:

(1)(i) The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment.

(b) The owner or operator must complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes. The Regional Administrator may approve a longer

closure period if the owner or operator demonstrates that:

(1)(i) The closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but inactive facility.

[Comment: Any extension of the 90 or 180 day period in this section may be made as a minor modification under § 270.42. Under paragraphs (a)(1)(i) and (b)(1)(ii) of this Section, if operation of the site is recommenced, the Regional Administrator may defer completion of closure activities until the new operation is terminated.]

[46 FR 2849, Jan. 12, 1981, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.114 Disposal or decontamination of equipment.

When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all hazardous waste and residues.

§ 264.115 Certification of closure.

When closure is completed, the owner or operator must submit to the Regional Administrator certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

§ 264.116 [Reserved]

§ 264.117 Post-closure care and use of property.

(a)(1) Post-closure care must continue for 30 years after the date of completing closure and must consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, and N of this part; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, and N of this part.

(2)(i) During the 180-day period preceding closure (see § 264.112(c)) or at any time thereafter, the Regional Administrator may reduce the post-closure care period to less than 30 years if he finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the facility is secure).

(ii) Prior to the time that the post-closure care period is due to expire, the Regional Administrator may extend the post-closure care period if he finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of waste at levels which may be harmful to human health and the environment).

(b) The Regional Administrator may require, at closure, continuation of any of the security requirements of (§ 264.14 during part or all of the post-closure period after the date of completing closure when:

(1) Wastes may remain exposed after completion of closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the Regional Administrator finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in § 264.118.

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32356, July 26, 1982]

§ 264.118 Post-closure plan; amendment of plan.

(a) The owner or operator of a disposal facility must have a written post-closure plan. In addition, certain piles and certain surface impoundments from which the owner or operator intends to remove the wastes at closure are required by §§ 264.228 and 264.258 to have post-closure plans. The plan must be submitted with a permit application, in accordance with § 270.14(b)(13) of this chapter, and approved by the Regional Administrator as part of the permit issuance proceeding under Part 124 of this chapter. In accordance with § 270.32 of this chapter, the approved post-closure plan will become a condition of any permit issued. A copy of the approved plan and all revisions to the plan must be kept at the facility until the post-closure care period begins. This plan must identify the activities that will be carried on after closure and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Subparts F, K, L, M, and N of this part during the post-closure care period;

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subparts K, L, M, and N of this part; and

(ii) The function of the facility monitoring equipment in accordance with the requirements of Subparts F, K, L, M, and N of this part; and

(3) The name, address, and phone number of the person or office to contact about the disposal facility during the post-closure period. This person or office must keep an updated post-closure plan during the post-closure period.

(b) The owner or operator may amend his post-closure plan at any time during the active life of the dis-

posal facility or during the post-closure care period. The owner or operator must amend his plan whenever changes in operating plans or facility design, or events which occur during the active life of the facility or during the post-closure period, affect his post-closure plan. He must also amend his plan whenever there is a change in the expected year of closure.

(c) When a permit modification is requested during the active life of the facility to authorize a change in operating plans or facility design, modification of the post-closure plan must be requested at the same time (see § 124.5(a)). In all other cases, the request for modification of the post-closure plan must be made within 60 days after the change in operating plans or facility design or the events which affect his post-closure plan occur.

[46 FR 2849, Jan. 12, 1981, as amended at 47 FR 32356, July 26, 1982; 48 FR 14294, Apr. 1, 1983]

§ 264.119 Notice to local land authority.

Within 90 days after closure is completed, the owner or operator of a disposal facility must submit to the local zoning authority or the authority with jurisdiction over local land use and to the Regional Administrator a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in § 264.117(c). In addition, the owner or operator must submit to the local zoning authority or the authority with jurisdiction over local land use and to the Regional Administrator a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location and quantity of the wastes to the best of his knowledge

and in accordance with any records he has kept. Any changes in the type, location, or quantity of hazardous wastes disposed of within each cell or area of the facility that occur after the survey plat and record of wastes have been filed must be reported to the local zoning authority or the authority with jurisdiction over local land use and to the Regional Administrator.

§ 264.120 Notice in deed to property.

(a) The owner of the property on which a disposal facility is located must record, in accordance with State law, a notation on the deed to the facility property—or on some other instrument which is normally examined during title search—that will in perpetuity notify any potential purchaser of the property that:

(1) The land has been used to manage hazardous wastes;

(2) Its use is restricted under § 264.117(c); and

(3) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility required in § 265.119 have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Regional Administrator of the Environmental Protection Agency.

(b) If at any time the owner or operator or any subsequent owner of the land upon which a hazardous waste facility was located removes the waste and waste residues, the liner, if any, and all contaminated underlying and surrounding soil, he may remove the notation on the deed to the facility property or other instrument normally examined during title search, or he may add a notation to the deed or instrument indicating the removal of the waste.

[*Comment:* On removing the waste and waste residues, the liner, if any, and the contaminated soil, the owner or operator, unless he can demonstrate in accordance with § 261.3(d) of this chapter that any solid waste removed is not a hazardous waste, becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262 through 268 of this chapter.]

Subpart H—Financial Requirements

SOURCE: 47 FR 15047, Apr. 7, 1982, unless otherwise noted.

§ 264.140 Applicability.

(a) The requirements of §§ 264.142, 264.143, and 264.147 through 264.151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this section or in § 264.1.

(b) The requirements of §§ 264.144 and 264.145 apply only to owners and operators of:

(1) Disposal facilities, and

(2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in §§ 264.228 and 264.258.

(c) States and the Federal government are exempt from the requirements of this subpart.

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982]

§ 264.141 Definitions of terms as used in this subpart.

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of § 264.112.

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with § 264.142 (a), (b), and (c).

(c) "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with § 264.144 (a), (b), and (c).

(d) "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of §§ 264.117 through 264.120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not in-

tended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms "bodily injury" and "property damage" shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Agency intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a

way that conflicts with general insurance industry usage.

"Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

"Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

[47 FR 16554, Apr. 16, 1982]

§ 264.142 Cost estimate for closure.

(a) The owner or operator must have a written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 264.111 through 264.115 and applicable closure requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351. The estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see § 264.112(a)).

(b) The owner or operator must adjust the closure cost estimate for inflation within 30 days after each anniversary of the date on which the first closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(1) and (b)(2) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its *Survey of Current Business*. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) The owner or operator must revise the closure cost estimate whenever a change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in § 264.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with § 264.142 (a) and (c) and, when this estimate has been adjusted in accordance with § 264.142(b), the latest adjusted closure cost estimate.

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982]

§ 264.143 Financial assurance for closure.

An owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in paragraphs (a) through (f) of this section.

(a) *Closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the

amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund must be made as follows:

(i) For a new facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Regional Administrator before this initial receipt of hazardous waste. The first payment must be at least equal to the current closure cost estimate, except as provided in § 264.143(g), divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in § 265.143(a) of this chapter, and the value of that trust fund is less than the current closure cost estimate when a permit is awarded for the facility, the amount of the current closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in paragraph (a)(3) of this section. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Part 265 of this chapter. The amount of each payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this section or in § 265.143 of this chapter, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this paragraph and § 265.143(a) of this chapter, as applicable.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraphs (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for closure activities, the Regional Administrator will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Regional Administrator specifies in writing. If the Regional Administrator has reason to believe that the cost of closure will be significantly greater than the value of the trust fund, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with § 264.143(i), that the owner or operator is no longer required to maintain financial assurance for closure.

(11) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(l).

(b) *Surety bond guaranteeing payment into a closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this

initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of

cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in § 264.143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidence by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Surety bond guaranteeing performance of closure.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial re-

ceipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust must meet the requirements specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

(ii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a determination pursuant to Section 3008 of RCRA that

the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure as guaranteed by the bond or will deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate.

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent. The Regional Administrator will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(10) The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the Regional Administrator releases the owner or operator from the re-

quirements of this section in accordance with § 264.143(i).

(d) *Closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. An owner or operator of a new facility must submit the letter of credit to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 264.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner

or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in § 264.143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Regional Administrator may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate as-

sure from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(10) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(e) *Closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. An owner or operator of a new facility must submit the certificate of insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in § 264.143(g). The term "face amount" means the total amount the insurer is

obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for closure activities, the Regional Administrator will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Regional Administrator specifies in writing. If the Regional Administrator has reason to believe that the cost of closure will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with § 264.143(i), that the owner or operator is no longer required to maintain financial assurance for closure of the facility.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (e)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to

nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

- (i) The Regional Administrator deems the facility abandoned; or
- (ii) The permit is terminated or revoked or a new permit is denied; or
- (iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or
- (iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or
- (v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be re-

duced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(10) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(f) *Financial test and corporate guarantee for closure.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (f)(1)(i) or (f)(1)(ii) of this section:

- (i) The owner or operator must have:
 - (A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and
 - (B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and
 - (C) Tangible net worth of at least \$10 million; and
 - (D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

- (ii) The owner or operator must have:
 - (A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and
 - (B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and
 - (C) Tangible net worth of at least \$10 million; and
 - (D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six

times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

- (i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and
- (ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and
- (iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent

by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (f)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (f)(3) of this section when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.143(i).

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator.

The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(8) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 264.143(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

(g) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a), (b), (d), and (e), respectively, of this section, except that it is the combination of mechanisms, rather than the single

mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for closure of the facility.

(h) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that closure has been accomplished in accordance with the closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for closure of the particular facility, unless the Regional Administrator has reason to believe

that closure has not been in accordance with the closure plan.

§ 264.144 Cost estimate for post-closure care.

(a) The owner or operator of a facility subject to post-closure monitoring or maintenance requirements must have a written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in §§ 264.117 through 264.120, 264.228, 264.258, 264.280, and 264.310. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Subpart G of Part 264.

(b) During the operating life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 30 days after each anniversary of the date on which the first post-closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(1) and (b)(2) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its *Survey of Current Business*. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) The owner or operator must revise the post-closure cost estimate during the operating life of the facility whenever a change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in § 264.144(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with § 264.144 (a)

and (c) and, when this estimate has been adjusted in accordance with § 264.144(b), the latest adjusted post-closure cost estimate.

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982]

§ 264.145 Financial assurance for post-closure care.

The owner or operator of a facility subject to post-closure monitoring or maintenance requirements must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility. He must choose from the following options:

(a) *Post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a post-closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

(i) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Regional Administrator before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in § 264.145(g), divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{\text{CE} - \text{CV}}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in § 265.145(a) of this chapter, and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the fund must be paid in over the pay-in period as defined in paragraph (a)(3) of this section. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Part 265 of this chapter. The amount of each payment must be determined by this formula:

$$\text{Next payment} = \frac{\text{CE} - \text{CV}}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. How-

ever, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section or in § 265.145 of this chapter, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this paragraph and § 265.145(a) of this chapter, as applicable.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the

owner or operator such funds as the Regional Administrator specifies in writing.

(10) During the period of post-closure care, the Regional Administrator may approve a release of funds if the owner or operator demonstrates to the Regional Administrator that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure activities, the Regional Administrator will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Regional Administrator specifies in writing.

(12) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(b) *Surety bond guaranteeing payment into a post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the

current post-closure cost estimate, except as provided in § 264.145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Surety bond guaranteeing performance of post-closure care.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. An owner or operator of a new facility must submit the bond to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

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(2) The wording of the surety bond must be identical to the wording specified in § 264.151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

(ii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days of receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other permit requirements, under the terms of the bond the surety will per-

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form post-closure care in accordance with the post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may approve a decrease in the penal sum if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(10) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent. The Regional Administrator will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(d) *Post-closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. An owner or operator of a new facility must submit the letter of credit to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 264.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 264.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in a amount at least equal to the current post-closure cost estimate, except as provided in § 264.145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may

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approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other permit requirements, the Regional Administrator may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(11) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(e) *Post-closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining post-closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. An owner or operator of a new facility must submit the certificate of insurance to the Regional Administrator at least 60 days before the

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date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in § 264.145(g). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure activities, the Regional Administrator will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Regional Administrator specifies in writing.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (e)(11) of this

section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount

of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i)

(f) *Financial test and corporate guarantee for post-closure care.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (f)(1)(i) or (f)(1)(ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (f)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (f)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial

statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Regional Administrator may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Regional Administrator that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in paragraph (f)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 264.145(i).

(11) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (9) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 264.145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(g) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a), (b), (d), and (e), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for post-closure care of the facility.

(h) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a

list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) *Release of the owner or operator from the requirements of this section.* When an owner or operator has completed, to the satisfaction of the Regional Administrator, all post-closure care requirements in accordance with the post-closure plan, the Regional Administrator will, at the request of the owner or operator, notify him in writing that he is no longer required by this section to maintain financial assurance for post-closure care of the particular facility.

[47 FR 15047, Apr. 7, 1982, as amended at 47 FR 32357, July 26, 1982]

§ 264.146 Use of a mechanism for financial assurance of both closure and post-closure care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both §§ 264.143 and 264.145. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assur-

ance of closure and of post-closure care.

§ 264.147 Liability requirements.

(a) *Coverage for sudden accidental occurrences.* An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (a)(1), (a)(2), and (a)(3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage demonstrated must total at least the minimum amounts required by this paragraph.

(b) *Coverage for nonsudden accidental occurrences.* An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facili-

ties are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage must total at least the minimum amounts required by this paragraph.

(4) For existing facilities, the required liability coverage for nonsudden accidental occurrences must be demonstrated by the dates listed below. The total sales or revenues of the owner or operator in all lines of business, in the fiscal year preceding the effective date of these regulations, will determine which of the dates applies. If the owner and operator of a facility are two different parties, or if there is more than one owner or operator, the sales or revenues of the owner or operator with the largest sales or revenues will determine the date by which the coverage must be demonstrated. The dates are as follows:

(i) For an owner or operator with sales or revenues totalling \$10 million or more, 6 months after the effective date of these regulations.

(ii) For an owner or operator with sales or revenues greater than \$5 mil-

lion but less than \$10 million, 18 months after the effective date of these regulations.

(iii) All other owners or operators, 30 months after the effective date of these regulations.

(c) *Request for variance.* If an owner or operator can demonstrate to the satisfaction of the Regional Administrator that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Regional Administrator. The request for a variance must be submitted to the Regional Administrator as part of the application under § 270.14 of this chapter for a facility that does not have a permit, or pursuant to the procedures for permit modification under § 124.5 of this chapter for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section. Any request for a variance for a permitted facility will be treated as a request for a permit modification under §§ 270.41(a)(5) and 124.5 of this chapter.

(d) *Adjustments by the Regional Administrator.* If the Regional Administrator determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Regional Administrator may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human

health and the environment. This adjusted level will be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Regional Administrator determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under §§ 270.41(a)(5) and 124.5 of this chapter.

(e) *Period of coverage.* An owner or operator must continuously provide liability coverage for a facility as required by this section until certifications of closure of the facility, as specified in § 264.115, are received by the Regional Administrator.

(f) *Financial test for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1)(i) or (f)(1)(ii):

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least \$10 million; and

(C) Assets in the United States amounting to either: (1) at least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least \$10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either: (1) at least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by §§ 264.143(f), 264.145(f), 265.143(e), and 265.145(e), and liability coverage, he must submit the letter specified in § 264.151(g) to cover both forms of financial responsibility; a separate letter as specified in § 264.151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility must submit the items specified in paragraph (f)(3) of this section to the Regional Administrator at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance for the entire amount of required liability coverage as specified in this section. Evidence of insurance must be submitted to the Regional Administrator within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) Notwithstanding any other provision of this part, an owner or operator using liability insurance to satisfy the requirements of this section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

(Approved by the Office of Management and Budget under control number 2000-

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0445, for paragraphs (a)(1)(d), (b)(1)(d), (c), (d), and (f)(3) through (6).
147 FR 16554, Apr. 16, 1982, as amended at 47 FR 28627, July 1, 1982; 47 FR 30447, July 13, 1982; 48 FR 30115, June 30, 1983]

§ 264.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 264.143(f) and 264.145(f) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of § 264.143, § 264.145, or § 264.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 264.149 Use of State-required mechanisms.

(a) For a facility located in a State where EPA is administering the requirements of this Subpart but where the State has hazardous waste regulations that include requirements for financial assurance of closure or post-closure care or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 264.143, § 264.145, or § 264.147, if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanism specified in this Subpart. The Regional Ad-

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ministrator will evaluate the equivalency of the mechanisms principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this Subpart. The submission must include the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 264.143, § 264.145, or § 264.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this Subpart.

§ 264.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure, post-closure care, or liability requirements of this Part or assures that funds will be available from State sources to cover those requirements,

the owner or operator will be in compliance with the requirements of § 264.143, § 264.145, or § 264.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this Subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this Subpart. The letter from the State must include, or have attached to it, the following information: the facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 264.143, § 264.145, or § 264.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by use of both the State's assurance and additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least

equal the amount required by this Subpart.

§ 264.151 Wording of the instruments.

(a)(1) A trust agreement for a trust fund, as specified in § 264.143(a) or § 264.145(a) or § 265.143(a) or § 265.145(a) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of ____" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund

except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that:*

(l) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are se-

curities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of

the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment,

The Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the payment period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the writ-

ten agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of (insert name of State).

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151(a)(1) as such regulations were constituted on the date first above written.

{Signature of Grantor}
{Title}

Attest:
{Title}
{Seal}
{Signature of Trustee}

Attest:
{Title}
{Seal}

(2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in §§ 264.143(a) and 264.145(a) or §§ 265.143(a) or 265.145(a) of this chapter. State requirements may differ on the proper content of this acknowledgment.

State of _____
County of _____

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

{Signature of Notary Public}

(b) A surety bond guaranteeing payment into a trust fund, as specified in § 264.143(b) or § 264.145(b) or § 265.143(b) or § 265.145(b) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

FINANCIAL GUARANTEE BOND

Date bond executed: _____
Effective date: _____

Principal: (legal name and business address of owner or operator)

Type of organization: (insert "individual," "joint venture," "partnership," or "corporation")

State of incorporation: _____
Surety(ies): (name(s) and business address(es))

EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and post-closure amounts separately): _____

Total penal sum of bond: \$ _____
Surety's bond number: _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after an order to begin closure is issued by an EPA Regional Administrator or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Subpart H of 40 CFR Parts 264 or 265, as applicable, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an EPA Regional Administrator that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an *optional* rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 264.151(b) as such regulations were constituted on the date this bond was executed.

Principal

{Signature(s)}
{Name(s)}
{Title(s)}
{Corporate seal}

Corporate Surety(ies)

{Name and address}
State of incorporation: _____
Liability limit: \$ _____
{Signature(s)}
{Name(s) and title(s)}
{Corporate seal}
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: \$ _____

(c) A surety bond guaranteeing performance of closure and/or post-closure care, as specified in § 264.143(c) or § 264.145(c), must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed: _____

Effective date: _____
Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____
Surety(ies): [name(s) and business address(es)] _____

EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]: _____

Total penal sum of bond: \$ _____
Surety's bond number: _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit in order to own or operate each hazardous waste management facility indentified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure

care, in accordance with the post closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

Or, if the Principal shall provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the closure requirements of 40 CFR Part 264, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the post-closure requirements of 40 CFR Part 264 for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has failed to provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, and obtain written approval of such assurance from the EPA Regional Administrator(s) during the 90 days following receipt by both the Principal and the EPA Regional Administrator(s) of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until

such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an *optional* rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 264.151(c) as such regulation was constituted on the date this bond was executed.

Principal

{Signature(s)}
{Name(s)}
{Title(s)}
{Corporate seal}

Corporate Surety(ies)

{Name and address}
State of incorporation: _____
Liability limit: \$ _____
{Signature(s)}
{Name(s) and title(s)}
{Corporate seal}

(For every co-surety, provide signatures), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: \$ _____

(d) A letter of credit, as specified in § 264.143(d) or § 264.145(d) or § 265.143(c) or § 265.145(c) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Regional Administrator(s)
Region(s) _____
U.S. Environmental Protection Agency

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars \$_____, available upon presentation [insert, if more than one Regional Administrator is a beneficiary, "by any one of you"] of

(1) your sight draft, bearing reference to this letter of credit No. _____, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 264.151(d) as such regulations were constituted on the date shown immediately below.

[Signatures(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to insert "The most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code".

(e) A certificate of insurance, as specified in § 264.143(e) or § 264.145(e) or § 265.143(d) or § 265.145(d) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer (herein called the "Insurer"): _____
Name and Address of Insured (herein called the "Insured"): _____

Facilities Covered: [List for each facility: The EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered must total the face amount shown below).]

Face Amount: _____
Policy Number: _____
Effective Date: _____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and post-closure care" or "post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator(s) of the U.S. Environmental Protection Agency, the Insurer agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e) as such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]
[Name of person signing]
[Title of person signing]
Signature of witness or notary: _____
[Date]

(f) A letter from the chief financial officer, as specified in § 264.143(f) or § 264.145(f) or § 265.143(e) or § 265.145(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located.]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Parts 264 and 265.

[Fill out the following four paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____

2. This firm guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and

265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of § 264.143 or § 264.145, or of paragraph (e)(1)(i) of § 265.143 or § 265.145 of this chapter are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of § 264.143 or § 264.145, or of paragraph (e)(1)(ii) of § 265.143 or § 265.145 of this chapter are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the four paragraphs above] \$ _____
- *2. Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4] _____
- *3. Tangible net worth _____
- *4. Net worth _____
- *5. Current assets _____
- *6. Current liabilities _____
7. Net working capital [line 5 minus line 6] _____
- *8. The sum of net income plus depreciation, depletion, and amortization _____
- *9. Total assets in U.S. [required only if less than 90% of firm's assets are located in the U.S.] _____

	Yes	No
10. Is line 3 at least \$10 million?		
11. Is line 3 at least 6 times line 1?		
12. Is line 7 at least 5 times line 1?		
*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14.		
14. Is line 9 at least 6 times line 1?		
15. Is line 2 divided by line 4 less than 2.0?		
16. Is line 6 divided by line 2 greater than 0.1?		
17. Is line 5 divided by line 6 greater than 1.5?		

ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the four paragraphs above] \$ _____
2. Current bond rating of most recent issuance of this firm and name of rating service _____
3. Date of issuance of bond _____
4. Date of maturity of bond _____

ALTERNATIVE II--Continued

- *5. Tangible net worth for any portion of the closure and post-closure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line) \$-----
- *6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) \$-----

	Yes	No
7. Is line 5 at least \$10 million?	-----	-----
8. Is line 5 at least 6 times line 1?	-----	-----
*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10.	-----	-----
10. Is line 6 at least 6 times line 1?	-----	-----

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(f) as such regulations were constituted on the date shown immediately below.

{Signature}
{Name}
{Title}
{Date}

(g) A letter from the chief financial officer, as specified in § 264.147(f) or § 265.147(f) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Letter from Chief Financial Officer (to demonstrate liability coverage or to demonstrate both liability coverage and assurance of closure or post-closure care).

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located.]

I am the chief financial officer of [owner's or operator's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in Subpart H of 40 CFR Parts 264 and 265.

{Fill out the following paragraph regarding facilities and liability coverage. For each facility, include its EPA Identification Number, name, and address.}

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265: -----

{If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following four paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.}

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

This owner or operator [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on (month, day). The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial state-

ments for the latest completed fiscal year, ended [date].

{Fill in part A if you are using the financial test to demonstrate coverage only for the liability requirements.}

Part A. Liability Coverage for Accidental Occurrences

{Fill in Alternative I if the criteria of paragraph (f)(1)(i) of § 264.147 or § 265.147 are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of § 264.147 or § 265.147 are used.}

ALTERNATIVE I

- 1. Amount of annual aggregate liability coverage to be demonstrated \$-----
- *2. Current assets \$-----
- *3. Current liabilities \$-----
- 4. Net working capital (line 2 minus line 3) \$-----
- *5. Tangible net worth \$-----
- *6. If less than 90% of assets are located in the U.S., give total U.S. assets \$-----
- 7. Is line 5 at least \$10 million? YES NO
- 8. Is line 4 at least 6 times line 1? -----
- 9. Is line 5 at least 6 times line 1? -----
- *10. Are at least 90% of assets located in the U.S.? If not, complete line 11. -----
- 11. Is line 6 at least 6 times line 1? -----

ALTERNATIVE II

- 1. Amount of annual aggregate liability coverage to be demonstrated \$-----
- 2. Current bond rating of most recent issuance and name of rating service -----
- 3. Date of issuance of bond -----
- 4. Date of maturity of bond -----
- *5. Tangible net worth \$-----
- *6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$-----
- 7. Is line 5 at least \$10 million? YES NO
- 8. Is line 5 at least 6 times line 1? -----
- *9. Are at least 90% of assets located in the U.S.? If not, complete line 10. -----
- 10. Is line 6 at least 6 times line 1? -----

{Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.}

Part B. Closure or Post-Closure Care and Liability Coverage

{Fill in Alternative I if the criteria of paragraphs (f)(1)(i) of § 264.143 or § 264.145 and (f)(1)(ii) of § 264.147 are used or if the criteria of paragraphs (e)(1)(i) of § 265.143 or § 265.145 and (f)(1)(i) of § 265.147 are used. Fill in Alternative II if the criteria of paragraphs (f)(1)(ii) of § 264.143 or § 264.145 and (f)(1)(ii) of § 264.147 are used or if the criteria of paragraphs (e)(1)(ii) of § 265.143

or § 265.145 and (f)(1)(ii) of § 265.147 are used.}

ALTERNATIVE I

- 1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) \$-----
- 2. Amount of annual aggregate liability coverage to be demonstrated \$-----
- 3. Sum of lines 1 and 2 \$-----
- *4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) \$-----
- *5. Tangible net worth \$-----
- *6. Net worth \$-----
- *7. Current assets \$-----
- *8. Current liabilities \$-----
- 9. Net working capital (line 7 minus line 8) \$-----
- *10. The sum of net income plus depreciation, depletion, and amortization \$-----
- *11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$-----
- 12. Is line 5 at least \$10 million? YES NO
- 13. Is line 5 at least 6 times line 3? -----
- 14. Is line 9 at least 6 times line 3? -----
- *15. Are at least 90% of assets located in the U.S.? If not, complete line 16. -----
- 16. Is line 11 at least 6 times line 3? -----
- 17. Is line 4 divided by line 6 less than 2.0? -----
- 18. Is line 10 divided by line 4 greater than 0.1? -----
- 19. Is line 7 divided by line 8 greater than 1.5? -----

ALTERNATIVE II

- 1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) \$-----
- 2. Amount of annual aggregate liability coverage to be demonstrated \$-----
- 3. Sum of lines 1 and 2 \$-----
- 4. Current bond rating of most recent issuance and name of rating service -----
- 5. Date of issuance of bond -----
- 6. Date of maturity of bond -----
- *7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) \$-----
- *8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) \$-----

ALTERNATIVE II--Continued

	YES	NO
9 Is line 7 at least \$10 million?	---	---
10 Is line 7 at least 6 times line 3?	---	---
*11 Are at least 90% of assets located in the US? If not, complete line 12	---	---
12 Is line 8 at least 6 times line 3?	---	---

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(g) as such regulations were constituted on the date shown immediately below.

[Signature]
[Name]
[Title]
[Date]

(h) A corporate guarantee, as specified in § 264.143(f) or § 264.145(f) or § 265.143(e) or § 265.145(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CORPORATE GUARANTEE FOR CLOSURE OR POST-CLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor, to the United States Environmental Protection Agency (EPA), obligee, on behalf of our subsidiary [owner or operator] of [business address].

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 264.143(f), 264.145(f), 265.143(e), and 265.145(e).

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by Subpart G of 40 CFR Parts 264 and 265 for the closure and post-closure care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees to EPA that in the event that [owner or operator] fails to perform [insert "closure," "post-closure care" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other

permit or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subpart H of 40 CFR Parts 264 or 265, as applicable, in the name of [owner or operator] in the amount of the current closure or post-closure cost estimates as specified in Subpart H of 40 CFR Parts 264 and 265.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in Subpart H of 40 CFR Parts 264 or 265, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Subpart H of 40 CFR Parts 264 or 265, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR Parts 264 or 265.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of Subpart H of 40 CFR Parts 264 and 265 for the above-listed facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located and to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by both EPA

and [owner or operator], as evidenced by the return receipts.

10. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in Subpart H of 40 CFR Parts 264 or 265, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

11. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 264.151(h) as such regulations were constituted on the date first above written.

Effective date: _____
[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary: _____

(i) A hazardous waste facility liability endorsement as required in § 264.147 or § 265.147 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at [list EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"]; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

(b) The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the insurer or the insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

Attached to and forming part of policy No. _____ issued by [name of insurer], herein called the insurer, of [address of insurer] to [name of insured] of [address] this _____ day of _____, 19____. The effective date of said policy is _____ day of _____, 19____.

I hereby certify that the wording of this endorsement is identical to the wording specified in 40 CFR 264.151(i) as such regulation was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of Authorized Representative of Insurer]
[Type name]
[Title], Authorized Representative of [name of Insurer]
[Address of Representative]

(j) A certificate of liability insurance as required in § 264.147 or § 265.147 must be worded as follows, except that

the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at [list EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"]; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number ———, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the Insurer or the insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional

Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(Approved by the Office of Management and Budget under control number 2000-0445, for paragraphs (g), (i), and (j).)

[47 FR 15059, Apr. 7, 1982, as amended at 47 FR 16556, Apr. 16, 1982; 47 FR 17989, Apr. 27, 1982; 47 FR 19995, May 10, 1982; 47 FR 28627, July 1, 1982]

Subpart I—Use and Management of Containers

Source: 46 FR 2866, Jan. 12, 1981, unless otherwise noted.

§ 264.170 Applicability.

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as § 264.1 provides otherwise.

[Comment: Under § 261.7 and § 261.33(c), if a hazardous waste is emptied from a container the residue remaining in the container is not considered a hazardous waste if the container is "empty" as defined in § 261.7. In that event, management of the container is exempt from the requirements of this Subpart.]

§ 264.171 Condition of containers.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this part.

§ 264.172 Compatibility of waste with containers.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

§ 264.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[Comment: Reuse of containers in transportation is governed by U.S. Department of Transportation regulations including those set forth in 49 CFR 173.28.]

§ 264.174 Inspections.

At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

[Comment: See §§ 264.15(c) and 264.171 for remedial action required if deterioration or leaks are detected.]

§ 264.175 Containment.

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.

(b) A containment system must be designed and operated as follows:

(1) A base must underly the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

(4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) of this section to contain any run-on which might enter the system; and

(5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

[Comment: If the collected material is a hazardous waste under Part 261 of this Chapter, it must be managed as a hazardous waste in accordance with all applicable requirements of Parts 262—265 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of Section 402 of the Clean Water Act, as amended.]

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by paragraph (b) of this section, provided that:

(1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

(2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

[46 FR 55112, Nov. 6, 1981]

§ 264.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[Comment: See § 264.17(a) for additional requirements.]

§ 264.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials (see Ap-

pendix V for examples), must not be placed in the same container, unless § 264.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

[Comment: As required by § 264.13, the waste analysis plan must include analyses needed to comply with § 264.177. Also, § 264.17(c) requires wastes analyses, trial tests or other documentation to assure compliance with § 264.17(b). As required by § 264.73, the owner or operator must place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.]

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this section is to prevent fires, explosions, gaseous emission, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

§ 264.178 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with § 261.3(d) of this chapter that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262–266 of this chapter.]

Subpart J—Tanks

SOURCE: 46 FR 2867, Jan. 12, 1981, unless otherwise noted.

§ 264.190 Applicability.

(a) The regulations in this subpart apply to owners and operators of facilities that use tanks to treat or store hazardous waste, except as § 264.1 and paragraph (b) of this section provide otherwise.

(b) The regulations in this Subpart do not apply to facilities that treat or store hazardous waste in covered underground tanks that cannot be entered for inspection.

§ 264.191 Design of tanks.

(a) Tanks must have sufficient shell strength and, for closed tanks, pressure controls (e.g., vents) to assure that they do not collapse or rupture. The Regional Administrator will review the design of the tanks, including the foundation, structural support, seams and pressure controls. The Regional Administrator shall require that a minimum shell thickness be maintained at all times to ensure sufficient shell strength. Factors to be considered in establishing minimum thickness include the width, height, and materials of construction of the tank, and the specific gravity of the waste which will be placed in the tank. In reviewing the design of the tank and establishing a minimum thickness, the Regional Administrator shall rely upon appropriate industrial design standards and other available information.

[46 FR 2867, Jan. 12, 1981, as amended at 46 FR 35249, July 7, 1981]

§ 264.192 General operating requirements.

(a) Wastes and other materials (e.g., treatment reagents) which are incompatible with the material of construction of the tank must not be placed in the tank unless the tank is protected from accelerated corrosion, erosion or abrasion through the use of:

(1) An inner liner or coating which is compatible with the waste or material and which is free of leaks, cracks, holes or other deterioration; or

(2) Alternative means of protection (e.g., cathodic protection or corrosion inhibitors).

(b) The owner or operator must use appropriate controls and practices to

prevent overfilling. These must include:

(1) Controls to prevent overfilling (e.g., waste feed cutoff system or by-pass system to a standby tank); and

(2) For uncovered tanks, maintenance of sufficient freeboard to prevent overtopping by wave or wind action or by precipitation.

§ 264.193 [Reserved]

§ 264.194 Inspections.

(a) The owner or operator must inspect:

(1) Overfilling control equipment (e.g., waste feed cut-off systems and by-pass systems) at least once each operating day to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) where present, at least once each operating day to ensure that the tank is being operated according to its design;

(3) For uncovered tanks, the level of waste in the tank, at least once each operating day, to ensure compliance with § 264.192(b)(2);

(4) The construction materials of the above-ground portions of the tank, at least weekly to detect corrosion or erosion and leaking of fixtures and seams; and

(5) The area immediately surrounding the tank, at least weekly, to detect obvious signs of leakage (e.g., wet spots or dead vegetation).

(b) As part of the inspection schedule required in § 264.15(b) and in addition to the specific requirements of paragraph (a) of this section, the owner or operator must develop a schedule and procedure for assessing the condition of the tank. The schedule and procedure must be adequate to detect cracks, leaks, corrosion or erosion which may lead to cracks or leaks, or wall thinning to less than the thickness required under § 264.191. Procedures for emptying a tank to allow entry and inspection of the interior must be established when necessary to detect corrosion or erosion of the tank sides and bottom. The frequency of these assessments must be based on the material of construction of the tank, type of corrosion or erosion pro-

tection used, rate of corrosion or erosion observed during previous inspections, and the characteristics of the waste being treated or stored.

(c) As part of the contingency plan required under Subpart D of Part 264, the owner or operator must specify the procedures he intends to use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank.

[Comment: As required in § 264.15(c), the owner or operator must remedy any leak, crack, or wall thinning in violation of § 264.191, or equipment or process malfunction in violation of § 264.192, which he discovers during inspection. See 29 CFR § 1910.94(d)(11) for Occupational Safety and Health Administration requirements relating to entry of tanks for inspection.]

§§ 264.195–264.196 [Reserved]

§ 264.197 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from tanks, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with § 261.3(d) of this chapter that the solid waste removed from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262–266 of this chapter.]

§ 264.198 Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in a tank unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this chapter, and (ii) § 264.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or

(3) The tank is used solely for emergencies.

(b) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981), (incorporated by reference, see § 260.11).

[46 FR 2867, Jan. 12, 1981, as amended at 46 FR 35249, July 7, 1981]

§ 261.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank, unless § 264.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless § 264.17(b) is complied with.

[Comment: As required by § 264.13, the waste analysis plan must include analyses needed to comply with § 264.199. Also, § 264.17(c) requires waste analyses, trial tests, or other documentation to ensure compliance with § 264.17(b). As required by § 264.73, the owner or operator must place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.]

Subpart K—Surface Impoundments

SOURCE: 47 FR 32357, July 26, 1982, unless otherwise noted.

§ 264.220 Applicability.

The regulations in this subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as § 264.1 provides otherwise.

§ 264.221 Design and operating requirements.

(a) A surface impoundment (except for an existing portion of a surface impoundment) must have a liner that is designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface

water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with § 264.228(a)(1). For impoundments that will be closed in accordance with § 264.228(a)(2), the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

(1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section if the Regional Administrator finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impound-

ment and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(d) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

(e) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.222 Double-lined surface impoundments: Exemption from Subpart F ground-water protection requirements.

(a) The owner or operator of a double-lined surface impoundment is not subject to regulation under Subpart F of this part if the following conditions are met:

(1) The impoundment (including its underlying liners) must be located entirely above the seasonal high water table.

(2) The impoundment must be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners. Both liners must meet all the specifications of § 264.221(a).

(3) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners.

(b) If liquid leaks into the leak detection system, the owner or operator must:

(1) Notify the Regional Administrator of the leak in writing within seven days after detecting the leak; and

(2)(i) Within a period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(ii) If a detection monitoring program pursuant to § 264.98 has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of Subpart F of this part within a period of time specified in the permit.

(c) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§§ 264.223—264.225 [Reserved]

§ 264.226 Monitoring and inspection.

(a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from § 264.221(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of overtopping control systems;

(2) Sudden drops in the level of the impoundment's contents; and

(3) The presence of liquids in leak detection systems, where installed to comply with § 264.222; and

(4) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time (at least six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

(1) Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

(2) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

§ 264.227 Emergency repairs; contingency plans.

(a) A surface impoundment must be removed from service in accordance with paragraph (b) of this section when:

(1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or

(2) The dike leaks.

(b) When a surface impoundment must be removed from service as required by paragraph (a) of this section, the owner or operator must:

(1) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(2) Immediately contain any surface leakage which has occurred or is occurring;

(3) Immediately stop the leak;

(4) Take any other necessary steps to stop or prevent catastrophic failure;

(5) If a leak cannot be stopped by any other means, empty the impoundment; and

(6) Notify the Regional Administrator of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in Subpart D of this part, the owner or operator must specify a procedure for complying with the requirements of paragraph (b) of this section.

(d) No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(1) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be recertified in accordance with § 264.226(c).

(2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(i) For any existing portion of the impoundment, a liner must be installed in compliance with § 264.221(a) or § 264.222; and

(ii) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of this section and that is not being repaired must be closed in accordance with the provisions of § 264.228.

§ 264.228 Closure and post-closure care.

(a) At closure, the owner or operator must:

(1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in §§ 264.117—264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under § 264.117). The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with § 264.222, where such a system is present between double liner systems;

(3) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part; and

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(1) If an owner or operator plans to close a surface impoundment in accordance with paragraph (a)(1) of this section, and the impoundment does not comply with the liner requirements of § 264.221(a) and is not exempt from them in accordance with § 264.221(b), then:

(i) The closure plan for the impoundment under § 264.112 must include both a plan for complying with paragraph (a)(1) of this section and a contingent plan for complying with paragraph (a)(2) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator must prepare a contingent post-closure plan

under § 264.118 for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.142 and 264.144 for closure and post-closure care of an impoundment subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a)(1) of this section.

(d) During the post-closure care period, if liquids leak into a leak detection system installed under § 264.222, the owner or operator must notify the Regional Administrator of the leak in writing within seven days after detecting the leak. The Regional Administrator will modify the permit to require compliance with the requirements of Subpart F of this part.

§ 264.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

§ 264.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same surface impoundment, unless § 264.17(b) is complied with.

Subpart L—Waste Piles

Source: 47 FR 32359, July 26, 1982, unless otherwise noted.

§ 264.250 Applicability.

(a) The regulations in this subpart apply to owners and operators of facilities that store or treat hazardous waste in piles, except as § 264.1 provides otherwise.

(b) The regulations in this subpart do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under Subpart N of this part (Landfills).

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither runoff nor leachate is generated is not subject to regulation under § 264.251 or under Subpart F of this part, provided that:

(1) Liquids or materials containing free liquids are not placed in the pile;

(2) The pile is protected from surface water run-on by the structure or in some other manner;

(3) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

(4) The pile will not generate leachate through decomposition or other reactions.

§ 264.251 Design and operating requirements.

(a) A waste pile (except for an existing portion of a waste pile) must have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The Regional Administrator will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:
(A) Chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(ii) Designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section if the Regional Administrator finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(f) If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

(g) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.252 Double-lined piles: Exemption from Subpart F ground-water protection requirements.

(a) The owner or operator of a double-lined waste pile is not subject to regulation under Subpart F of this part if the following conditions are met:

(1) The pile (including its underlying liners) must be located entirely above the seasonal high water table.

(2) The pile must be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners. Both liners

must meet all the specifications of § 264.251(a)(1).

(3) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners.

(4) The pile must have a leachate collection and removal system above the top liner that is designed, constructed, maintained, and operated in accordance with § 264.251(a)(2).

(b) If liquid leaks into the leak detection system, the owner or operator must:

(1) Notify the Regional Administrator of the leak in writing within seven days after detecting the leak; and

(2)(i) Within a period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(ii) If a detection monitoring program pursuant to § 264.98 has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of Subpart F of this part within a period of time specified in the permit.

(c) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.253 Inspection of liners: Exemption from Subpart F ground-water protection requirements.

(a) The owner or operator of a pile is not subject to regulation under Subpart F of this part if the following conditions are met:

(1) The pile (including its underlying liner) must be located entirely above the seasonal high water table.

(2) The pile must be underlain by a liner (base) that meets all the specifications of § 264.251(a)(1).

(3) The wastes in the pile must be removed periodically, and the liner must be inspected for deterioration, cracks, or other conditions that may

result in leaks. The frequency of inspection will be specified in the inspection plan required in § 264.15 and must be based on the potential for the liner (base) to crack or otherwise deteriorate under the conditions of operation (e.g., waste type, rainfall, loading rates, and subsurface stability).

(4) The liner must be of sufficient strength and thickness to prevent failure due to puncture, cracking, tearing, or other physical damage from equipment used to place waste in or on the pile or to clean and expose the liner surface for inspection.

(5) The pile must have a leachate collection and removal system above the liner that is designed, constructed, maintained, and operated in accordance with § 264.251(a)(2).

(b) If deterioration, a crack, or other condition is identified that is causing or could cause a leak, the owner or operator must:

(1) Notify the Regional Administrator of the condition in writing within seven days after detecting the condition; and

(2)(i) Repair or replace the liner (base) and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the liner (base) has been repaired and leakage will not occur; or

(ii) If a detection monitoring program pursuant to § 264.98 has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of Subpart F of this part within a period of time specified in the permit.

(c) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.254 Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of piles exempt from § 264.251(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) The presence of liquids in leak detection systems, where installed to comply with § 264.252;

(3) Proper functioning of wind dispersal control systems, where present; and

(4) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

§ 264.255 [Reserved]

§ 264.256 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a waste pile unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 264.257 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same pile, unless § 264.17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other

material stored nearby in containers, other piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with § 264.17(b).

§ 264.258 Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 264.310).

(c)(1) The owner or operator of a waste pile that does not comply with the liner requirements of § 264.251(a)(1) and is not exempt from them in accordance with §§ 264.250(c) or 264.251(b), must:

(i) Include in the closure plan for the pile under § 264.112 both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under § 264.118 for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.142 and 264.144 for closure and post-closure care of a pile

subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a) of this section.

§§ 264.259—264.269 [Reserved]

Subpart M—Land Treatment

SOURCE: 47 FR 32361, July 26, 1982, unless otherwise noted.

§ 264.270 Applicability.

The regulations in this subpart apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as § 264.1 provides otherwise.

§ 264.271 Treatment program.

(a) An owner or operator subject to this subpart must establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The Regional Administrator will specify in the facility permit the elements of the treatment program, including:

(1) The wastes that are capable of being treated at the unit based on a demonstration under § 264.272;

(2) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with § 264.273(a); and

(3) Unsaturated zone monitoring provisions meeting the requirements of § 264.278.

(b) The Regional Administrator will specify in the facility permit the hazardous constituents that must be degraded, transformed, or immobilized under this subpart. Hazardous constituents are constituents identified in Appendix VIII of Part 261 of this chapter that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The Regional Administrator will specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is

the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone must be:

- (1) No more than 1.5 meters (5 feet) from the initial soil surface; and
- (2) More than 1 meter (3 feet) above the seasonal high water table.

§ 264.272 Treatment demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator must demonstrate, prior to application of the waste, that hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under paragraph (a) of this section, he must obtain a treatment or disposal permit under § 270.63. The Regional Administrator will specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure and clean-up activities) necessary to meet the requirements in paragraph (c) of this section.

(c) Any field test or laboratory analysis conducted in order to make a demonstration under paragraph (a) of this section must:

- (1) Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:
 - (i) The characteristics of the waste (including the presence of Appendix VIII of Part 261 of this chapter constituents);
 - (ii) The climate in the area;
 - (iii) The topography of the surrounding area;

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(iv) The characteristics of the soil in the treatment zone (including depth); and

(v) The operating practices to be used at the unit.

(2) Be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and

(3) Be conducted in a manner that protects human health and the environment considering:

- (i) The characteristics of the waste to be tested;
- (ii) The operating and monitoring measures taken during the course of the test;
- (iii) The duration of the test;
- (iv) The volume of waste used in the test;
- (v) In the case of field tests, the potential for migration of hazardous constituents to ground water or surface water.

[47 FR 32361, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.273 Design and operating requirements.

The Regional Administrator will specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with this section.

(a) The owner or operator must design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator must design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under § 264.272. At a minimum, the Regional Administrator will specify the following in the facility permit:

- (1) The rate and method of waste application to the treatment zone;
- (2) Measures to control soil pH;
- (3) Measures to enhance microbial or chemical reactions (e.g., fertilization, tilling); and

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(4) Measures to control the moisture content of the treatment zone.

(b) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

(g) The owner or operator must inspect the unit weekly and after storms to detect evidence of:

- (1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and
- (2) Improper functioning of wind dispersal control measures.

§§ 264.274—264.275 [Reserved]

§ 264.276 Food-chain crops.

The Regional Administrator may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of this section. The Regional Administrator will specify in the facility permit the specific food-chain crops which may be grown.

(a)(1) The owner or operator must demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops,

that hazardous constituents other than cadmium:

(i) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals (e.g., by grazing); or

(ii) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

(2) The owner or operator must make the demonstration required under this paragraph prior to the planting of crops at the facility for all constituents identified in Appendix VIII of Part 261 of this chapter that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(3) In making a demonstration under this paragraph, the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and must:

(i) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (e.g., pH, cation exchange capacity), specific wastes, application rates, application methods, and crops to be grown; and

(ii) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

(4) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under this paragraph, he must obtain a permit for conducting such activities.

(b) The owner or operator must comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

(1)(i) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste must not exceed 0.5

kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food-chain crops, the annual cadmium application rate must not exceed:

Time period	Annual Cd application rate (kilograms per hectare)
Present to June 30, 1984	2.0
July 1, 1984 to Dec. 31, 1986	1.25
Beginning Jan. 1, 1987	0.5

(iii) The cumulative application of cadmium from waste must not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(iv) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/100g; 10 kg/ha if soil CEC is 5-15 meq/100g; and 20 kg/ha if soil CEC is greater than 15 meq/100g; or

(2)(i) Animal feed must be the only food-chain crop produced;

(ii) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food-chain crops are grown;

(iii) There must be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(iv) Future property owners must be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food-chain crops must not be

grown except in compliance with paragraph (b)(2) of this section.

§ 261.277 [Reserved]

§ 261.278 Unsaturated zone monitoring.

An owner or operator subject to this subpart must establish an unsaturated zone monitoring program to discharge the following responsibilities:

(a) The owner or operator must monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

(1) The Regional Administrator will specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under § 264.271(b).

(2) The Regional Administrator may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents specified under § 264.271(b). PHCs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Regional Administrator will establish PHCs if he finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation, transformation, or immobilization of the PHCs will assure treatment at at least equivalent levels for the other hazardous constituents in the wastes.

(b) The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

(1) Represent the quality of background soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

(2) Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

(c) The owner or operator must establish a background value for each

hazardous constituent to be monitored under paragraph (a) of this section. The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.

(1) Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

(2) Background soil-pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

(3) The owner or operator must express all background values in a form necessary for the determination of statistically significant increases under paragraph (f) of this section.

(4) In taking samples used in the determination of all background values, the owner or operator must use an unsaturated zone monitoring system that complies with paragraph (b)(1) of this section.

(d) The owner or operator must conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The Regional Administrator will specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application, and the soil permeability. The owner or operator must express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under paragraph (f) of this section.

(e) The owner or operator must use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator must implement procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures; and
- (4) Chain of custody control.

(f) The owner or operator must determine whether there is a statistically significant change over background

values for any hazardous constituent to be monitored under paragraph (a) of this section below the treatment zone each time he conducts soil monitoring and soil-pore liquid monitoring under paragraph (d) of this section.

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent, as determined under paragraph (d) of this section, to the background value for that constituent according to the statistical procedure specified in the facility permit under this paragraph.

(2) The owner or operator must determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Regional Administrator will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

(3) The owner or operator must determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Regional Administrator will specify a statistical procedure in the facility permit that he finds:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to paragraph (f) of this section, that there is a statistically significant increase of hazardous constituents below the treatment zone, he must:

(1) Notify the Regional Administrator of this finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases.

(2) Within 90 days, submit to the Regional Administrator an application

for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.

(h) If the owner or operator determines, pursuant to paragraph (f) of this section, that there is a statistically significant increase of hazardous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under paragraph (g)(2) of this section, he is not relieved of the requirement to submit a permit modification application within the time specified in paragraph (g)(2) of this section unless the demonstration made under this paragraph successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this paragraph, the owner or operator must:

(1) Notify the Regional Administrator in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a determination under this paragraph;

(2) Within 90 days, submit a report to the Regional Administrator demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Regional Administrator an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

(4) Continue to monitor in accordance with the unsaturated zone monitoring program established under this section.

§ 264.279 Recordkeeping.

The owner or operator must include hazardous waste application dates and

rates in the operating record required under § 264.73.

§ 264.280 Closure and post-closure care.

(a) During the closure period the owner or operator must:

(1) Continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under § 264.273(a), except to the extent such measures are inconsistent with paragraph (a)(8) of this section.

(2) Continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under § 264.273(b);

(3) Maintain the run-on control system required under § 264.273(c);

(4) Maintain the run-off management system required under § 264.273(d);

(5) Control wind dispersal of hazardous waste if required under § 264.273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under § 264.276;

(7) Continue unsaturated zone monitoring in compliance with § 264.278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

(8) Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with § 264.115, when closure is completed the owner or operator may submit to the Regional Administrator certification by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period the owner or operator must:

(1) Continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

(2) Maintain a vegetative cover over closed portions of the facility;

(3) Maintain the run-on control system required under § 264.273(c);

(4) Maintain the run-off management system required under § 264.273(d);

(5) Control wind dispersal of hazardous waste if required under § 264.273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under § 264.276; and

(7) Continue unsaturated zone monitoring in compliance with § 264.278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under paragraphs (a)(8) and (c) of this section if the Regional Administrator finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in paragraph (d)(3) of this section. The owner or operator may submit such a demonstration to the Regional Administrator at any time during the closure of post-closure care periods. For the purposes of this paragraph:

(1) The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under § 264.271 (b).

(i) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(ii) The owner or operator must express background values and values for hazardous constituents in the treatment zone in a form necessary for

the determination of statistically significant increases under paragraph (d)(3) of this section.

(2) In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

(3) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under Subpart F of this chapter if the Regional Administrator finds that the owner or operator satisfies paragraph (d) of this section and if unsaturated zone monitoring under § 264.278 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

§ 264.281 Special requirements for ignitable or reactive waste.

The owner or operator must not apply ignitable or reactive waste to the treatment zone unless:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

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(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 264.282 Special requirements for incompatible wastes.

The owner or operator must not place incompatible wastes, or incompatible wastes and materials (see Appendix V of this part for examples), in or on the same treatment zone, unless § 264.17(b) is complied with.

§§ 264.283—264.299 [Reserved]

Subpart N—Landfills

SOURCE: 47 FR 32365, July 26, 1982, unless otherwise noted.

§ 264.300 Applicability.

The regulations in this subpart apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as § 264.1 provides otherwise.

§ 264.301 Design and operating requirements.

(a) A landfill (except for an existing portion of a landfill) must have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to pre-

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vent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Regional Administrator will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of paragraph (a) of this section if the Regional Administrator finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see § 264.93) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Regional Administrator will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable

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of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(f) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(g) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.302 Double-lined landfills: Exemption from Subpart F ground-water protection requirements.

(a) The owner or operator of a double-lined landfill is not subject to regulation under Subpart F of this part if the following conditions are met:

(1) The landfill (including its underlying liners) must be located entirely above the seasonal high water table.

(2) The landfill must be underlain by two liners which are designed and constructed in a manner to prevent the migration of liquids into or out of the space between the liners. Both liners must meet all the specifications of § 264.301(a)(1).

(3) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquid into the space between the liners.

(4) The landfill must have a leachate collection and removal system above the top liner that is designed, constructed, maintained, and operated in accordance with § 264.301(a)(2).

(b) If liquid leaks into the leak detection system, the owner or operator must:

(1) Notify the Regional Administrator of the leak in writing within seven days after detecting the leak; and

(2)(i) Within a period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(ii) If a detection monitoring program pursuant to § 264.98 has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of Subpart F of this part within a period of time specified in the permit.

(c) The Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

§ 264.303 Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of landfills exempt from § 264.301(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) The presence of liquids in leak detection systems, where installed to comply with § 264.302;

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(3) Proper functioning of wind dispersal control systems, where present; and

(4) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

§§ 264.304—264.308 [Reserved]

§ 264.309 Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required under § 264.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

§ 264.310 Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all post-closure requirements contained in §§ 264.117 through 264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under § 264.117). The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with

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§ 264.302, where such a system is present between double liner systems;

(3) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(4) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part;

(5) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(6) Protect and maintain surveyed benchmarks used in complying with § 264.309.

(c) During the post-closure care period, if liquid leaks into a leak detection system installed under § 264.302, the owner or operator must notify the Regional Administrator of the leak in writing within seven days after detecting the leak. The Regional Administrator will modify the permit to require compliance with the requirements of Subpart F of this part.

§ 264.311 [Reserved]

§ 264.312 Special requirements for ignitable or reactive waste.

(a) Except as provided in paragraph (b) of this section, and in § 264.316, ignitable or reactive waste must not be placed in a landfill, unless the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (a) of this section, provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to

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minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

§ 264.313 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V of this part for examples) must not be placed in the same landfill cell, unless § 264.17(b) is complied with.

§ 264.314 Special requirements for liquid waste.

(a) Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) The landfill has a liner and leachate collection and removal system that meet the requirements of § 264.301(a); or

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Containers holding free liquids must not be placed in a landfill unless:

(1) All free-standing liquid: (i) has been removed by decanting, or other methods; (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or (iii) has been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in § 264.316 and is disposed of in accordance with § 264.316.

§ 264.315 Special requirements for containers.

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

§ 264.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178, and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

(c) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with § 264.17(b).

(d) Incompatible wastes, as defined in § 260.10 of this chapter, must not be placed in the same outside container.

(e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in § 261.23(a)(5) of this chapter, must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (a) through (d) of this section. Cyanide- and sulfide-bearing reactive waste may be packed in accordance with paragraphs (a) through (d) of this section without first being treated or rendered non-reactive.

Subpart O—Incinerators

SOURCE: 46 FR 7678, Jan. 23, 1981, unless otherwise noted.

§ 264.340 Applicability.

(a) The regulations in this Subpart apply to owners and operators of facilities that incinerate hazardous waste, except as § 264.1 provides otherwise.

(b) After consideration of the waste analysis included with Part B of the permit application, the Regional Administrator, in establishing the permit conditions, must exempt the applicant from all requirements of this Subpart except § 264.341 (Waste analysis) and § 264.351 (Closure).

(1) If the Regional Administrator finds that the waste to be burned is:

(i) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(ii) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(iii) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under Part 261, Subpart C, of this chapter; or

(iv) A hazardous waste solely because it possesses any of the reactivity characteristics described by § 261.23(a) (1), (2), (3), (6), (7), and (8) of this chapter, and will not be burned when other hazardous wastes are present in the combustion zone; and

(2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Part 261, Appendix VIII, of this chapter, which would reasonably be expected to be in the waste.

(c) If the waste to be burned is one which is described by paragraphs (b)(1)(i), (b)(1)(ii), (b)(1)(iii), or (b)(1)(iv) of this section and contains

insignificant concentrations of the hazardous constituents listed in Part 261, Appendix VIII, of this chapter, then the Regional Administrator may, in establishing permit conditions, exempt the applicant from all requirements of this Subpart, except § 264.341 (Waste analysis) and § 264.351 (Closure), after consideration of the waste analysis included with Part B of the permit application, unless the Regional Administrator finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

(d) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of § 270.62 of this chapter (Short term and incinerator permits).

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983]

§ 264.341 Waste analysis.

(a) As a portion of the trial burn plan required by § 270.62 of this chapter, or with Part B of the permit application, the owner or operator must have included an analysis of the waste feed sufficient to provide all information required by § 270.62(b) or § 270.19 of this chapter. Owners or operators of new hazardous waste incinerators must provide the information required by § 270.62(c) or § 270.19 of this chapter to the greatest extent possible.

(b) Throughout normal operation the owner or operator must conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in his permit (under § 264.345(b)).

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 264.342 Principal organic hazardous constituents (POHCs).

(a) Principal Organic Hazardous Constituents (POHCs) in the waste feed must be treated to the extent required by the performance standard of § 264.343.

(b)(1) One or more POHCs will be specified in the facility's permit, from among those constituents listed in

Part 261, Appendix VIII of this chapter, for each waste feed to be burned. This specification will be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with Part B of the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as POHCs. Constituents are more likely to be designated as POHCs if they are present in large quantities or concentrations in the waste.

(2) Trial POHCs will be designated for performance of trial burns in accordance with the procedure specified in § 270.62 of this chapter for obtaining trial burn permits.

[46 FR 7678, Jan. 23, 1981, as amended at 48 FR 14295, Apr. 1, 1983]

§ 264.343 Performance standards.

An incinerator burning hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under § 264.345, it will meet the following performance standards:

(a) An incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under § 264.342) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE = \frac{(W_{in} - W_{out})}{W_{in}} \times 100\%$$

Where:

W_{in} = Mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator, and

W_{out} = Mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per

hour (4 pounds per hour) of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the HCl in the stack gas prior to entering any pollution control equipment.

(c) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = P_m \times \frac{14}{21 - Y}$$

Where P_c is the corrected concentration of particulate matter, P_m is the measured concentration of particulate matter, and Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in Part 60, Appendix A (Method 3), of this Chapter. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Regional Administrator will select an appropriate correction procedure, to be specified in the facility permit.

(d) For purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 264.345) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this section may be "information" justifying modification, revocation, or reissuance of a permit under § 270.41 of this chapter.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983]

§ 264.344 Hazardous waste incinerator permits.

(a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions speci-

fied for those wastes under § 264.345, except:

(1) In approved trial burns under § 270.62 of this chapter; or

(2) Under exemptions created by § 264.340.

(b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with Part B of a permit application under § 270.19 of this chapter.

(c) The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of this Subpart, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of § 264.345, sufficient to comply with the following standards:

(1) For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in paragraph (c)(2) of this section, not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements must be those most likely to ensure compliance with the performance standards of § 264.343, based on the Regional Administrator's engineering judgment. The Regional Administrator may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(2) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of § 264.343 and must be in accordance with the approved trial burn plan;

(3) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Regional Administrator, the oper-

ating requirements must be those most likely to ensure compliance with the performance standards of § 264.343, based on the Regional Administrator's engineering judgement.

(4) For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in § 270.19(c) of this chapter, as sufficient to ensure compliance with the performance standards of § 264.343.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982; 48 FR 14295, Apr. 1, 1983]

§ 264.345 Operating requirements.

(a) An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in § 264.344(b) and included with Part B of a facility's permit application) to be sufficient to comply with the performance standards of § 264.343.

(b) Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of § 264.343) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:

(1) Carbon monoxide (CO) level in the stack exhaust gas;

(2) Waste feed rate;

(3) Combustion temperature;

(4) An appropriate indicator of combustion gas velocity;

(5) Allowable variations in incinerator system design or operating procedures; and

(6) Such other operating requirements as are necessary to ensure that the performance standards of § 264.343 are met.

(c) During start-up and shut-down of an incinerator, hazardous waste (except wastes exempted in accordance with § 264.340) must not be fed into the incinerator unless the inciner-

ator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the permit.

(d) Fugitive emissions from the combustion zone must be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining a combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under paragraph (a) of this Section.

(f) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27532, June 24, 1982]

§ 264.346 [Reserved]

§ 264.347 Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring while incinerating hazardous waste:

(1) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis.

(2) CO must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

(3) Upon request by the Regional Administrator, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the performance standards of § 264.343.

(b) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be subjected to thorough visual inspection, at least daily,

for leaks, spills, fugitive emissions, and signs of tampering.

(c) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the Regional Administrator that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.

(d) This monitoring and inspection data must be recorded and the records must be placed in the operating log required by § 264.73.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27533, June 24, 1982]

§§ 264.348—264.350 [Reserved]

§ 264.351 Closure.

At closure the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(d) of this chapter, that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of Parts 262-266 of this chapter.]

§§ 264.352—264.999 [Reserved]

APPENDIX I—RECORDKEEPING INSTRUCTIONS

The recordkeeping provisions of § 264.73 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See § 264.73(b) for additional recordkeeping requirements.

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from

Part 261 of this Chapter which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part 261, Subpart D, of this Chapter, the description also must include the process that produced it (for example, solid filter cake from production of ----, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Part 261, Subpart D, of this Chapter, and each hazardous waste characteristic defined in Part 261, Subpart C, of this Chapter, has a four-digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1;

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

TABLE 1

Unit of measure	Symbol ¹	Density
Pounds.....	P	
Short tons (2000 lbs).....	T	
Gallons (U.S.).....	G	P/G
Cubic yards.....	Y	T/Y
Kilograms.....	K	
Tonnes (1000 kg).....	M	
Liters.....	L	K/L
Cubic meters.....	C	M/C

¹ Single digit symbols are used here for data processing purposes.

TABLE 2—HANDLING CODES FOR TREATMENT, STORAGE, AND DISPOSAL METHODS

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage

- S01 Container (barrel, drum, etc.)
- S02 Tank
- S03 Waste pile
- S04 Surface impoundment
- S05 Other (specify)

2. Treatment

(a) Thermal Treatment

- T06 Liquid injection incinerator
- T07 Rotary kiln incinerator
- T08 Fluidized bed incinerator
- T09 Multiple hearth incinerator
- T10 Infrared furnace incinerator
- T11 Molten salt destructor

- T12 Pyrolysis
- T13 Wet Air oxidation
- T14 Calcination
- T15 Microwave discharge
- T16 Cement kiln
- T17 Lime kiln
- T18 Other (specify)
- (b) Chemical Treatment
- T19 Absorption mound
- T20 Absorption field
- T21 Chemical fixation
- T22 Chemical oxidation
- T23 Chemical precipitation
- T24 Chemical reduction
- T25 Chlorination
- T26 Chlorinolysis
- T27 Cyanide destruction
- T28 Degradation
- T29 Detoxification
- T30 Ion exchange
- T31 Neutralization
- T32 Ozonation
- T33 Photolysis
- T34 Other (specify)
- (c) Physical Treatment
- (1) Separation of components
- T35 Centrifugation
- T36 Clarification
- T37 Coagulation
- T38 Decanting
- T39 Encapsulation
- T40 Filtration
- T41 Flocculation
- T42 Flotation
- T43 Foaming
- T44 Sedimentation
- T45 Thickening
- T46 Ultrafiltration
- T47 Other (specify)
- (2) Removal of Specific Components
- T48 Absorption-molecular sieve
- T49 Activated carbon
- T50 Blending
- T51 Catalysis
- T52 Crystallization
- T53 Dialysis
- T54 Distillation
- T55 Electrodialysis
- T56 Electrolysis
- T57 Evaporation
- T58 High gradient magnetic separation
- T59 Leaching
- T60 Liquid ion exchange
- T61 Liquid-liquid extraction
- T62 Reverse osmosis
- T63 Solvent recovery
- T64 Stripping
- T65 Sand filter
- T66 Other (specify)
- (d) Biological Treatment
- T67 Activated sludge
- T68 Aerobic lagoon
- T69 Aerobic tank
- T70 Anaerobic lagoon
- T71 Composting
- T72 Septic tank

- T73 Spray irrigation
- T74 Thickening filter
- T75 Trucking filter
- T76 Waste stabilization pond
- T77 Other (specify)
- T78-79 (Reserved)
- 3. Disposal
- D80 Underground injection
- D81 Landfill
- D82 Land treatment
- D83 Ocean disposal
- D84 Surface impoundment (to be closed as a landfill)
- D85 Other (specify)

APPENDIX II—III (RESERVED)

APPENDIX IV—COCHRAN'S APPROXIMATION TO THE BEHRENS-FISHER STUDENTS' T-TEST

Using all the available background data (n_b readings), calculate the background mean (\bar{X}_b) and background variance (S_b^2). For the single monitoring well under investigation (n_m reading), calculate the monitoring mean (\bar{X}_m) and monitoring variance (S_m^2).

For any set of data (X_1, X_2, \dots, X_n) the mean is calculated by:

$$\bar{X} = \frac{X_1 + X_2 + \dots + X_n}{n}$$

and the variance is calculated by:

$$S^2 = \frac{(X_1 - \bar{X})^2 + (X_2 - \bar{X})^2 + \dots + (X_n - \bar{X})^2}{n - 1}$$

where "n" denotes the number of observations in the set of data.

The t-test uses these data summary measures to calculate a t-statistic (t^*) and a comparison t-statistic (t_c). The t^* value is compared to the t_c value and a conclusion reached as to whether there has been a statistically significant change in any indicator parameter.

The t-statistic for all parameters except pH and similar monitoring parameters is:

$$t^* = \frac{X_m - \bar{X}_b}{\sqrt{\frac{S_m^2}{n_m} + \frac{S_b^2}{n_b}}}$$

If the value of this t-statistic is negative then there is no significant difference between the monitoring data and background

data. It should be noted that significantly small negative values may be indicative of a failure of the assumption made for test validity or errors have been made in collecting the background data.

The t-statistic (t_c), against which t^* will be compared, necessitates finding t_a and t_m from standard (one-tailed) tables where:

t_a = t-tables with ($n_b - 1$) degrees of freedom, at the 0.05 level of significance.

t_m = t-tables with ($n_m - 1$) degrees of freedom, at the 0.05 level of significance.

Finally, the special weightings W_b and W_m are defined as:

$$W_b = \frac{S_b^2}{n_b} \quad \text{and} \quad W_m = \frac{S_m^2}{n_m}$$

and so the comparison t-statistic is:

$$t_c = \frac{W_b t_a + W_m t_m}{W_b + W_m}$$

The t-statistic (t^*) is now compared with the comparison t-statistic (t_c) using the following decision-rule:

If t^* is equal to or larger than t_c , then conclude that there most likely has been a significant increase in this specific parameter.

If t^* is less than t_c , then conclude that most likely there has not been a change in this specific parameter.

The t-statistic for testing pH and similar monitoring parameters is constructed in the same manner as previously described except the negative sign (if any) is discarded and the caveat concerning the negative value is ignored. The standard (two-tailed) tables are used in the construction of t_c for pH and similar monitoring parameters.

If t^* is equal to or larger than t_c , then conclude that there most likely has been a significant increase (if the initial t^* had been negative, this would imply a significant decrease). If t^* is less than t_c , then conclude that there most likely has been no change.

A further discussion of the test may be found in *Statistical Methods* (6th Edition, Section 4.14) by G. W. Snedecor and W. G. Cochran, or *Principles and Procedures of Statistics* (1st Edition, Section 5.8) by R. G. D. Steel and J. H. Torrie.

STANDARD T-TADLF'S 0.05 LEVEL OF SIGNIFICANCE

Degrees of freedom	t-values (one-tail)	t-values (two-tail)
1	6.314	12.708
2	2.920	4.303
3	2.353	3.182
4	2.132	2.776
5	2.015	2.571
6	1.943	2.447
7	1.895	2.365
8	1.860	2.306
9	1.833	2.262
10	1.812	2.228
11	1.796	2.201
12	1.782	2.179
13	1.771	2.160
14	1.761	2.145
15	1.753	2.131
16	1.746	2.120
17	1.740	2.110
18	1.734	2.101
19	1.729	2.093
20	1.725	2.086
21	1.721	2.080
22	1.717	2.074
23	1.714	2.069
24	1.711	2.064
25	1.708	2.060
30	1.697	2.042
40	1.684	2.021

Adopted from Table III of "Statistical Tables for Biological, Agricultural, and Medical Research" (1947, R. A. Fisher and F. Yates).

[47 FR 32367, July 26, 1982]

APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

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It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

GROUP 1-A

- Acetylene sludge
- Alkaline caustic liquids
- Alkaline cleaner
- Alkaline corrosive liquids
- Alkaline corrosive battery fluid
- Caustic wastewater
- Lime sludge and other corrosive alkalies
- Lime wastewater
- Lime and water
- Spent caustic

GROUP 1-B

- Acid sludge
- Acid and water
- Battery acid
- Chemical cleaners
- Electrolyte, acid
- Etching acid liquid or solvent
- Pickling liquor and other corrosive acids
- Spent acid
- Spent mixed acid
- Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

GROUP 2-A

- Aluminum
- Beryllium
- Calcium
- Lithium
- Magnesium
- Potassium
- Sodium
- Zinc powder
- Other reactive metals and metal hydrides

GROUP 2-B

- Any waste in Group 1-A or 1-B
- Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

GROUP 3-A

- Alcohols
- Water

GROUP 3-B

- Any concentrated waste in Groups 1-A or 1-B

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- Calcium
 - Lithium
 - Metal hydrides
 - Potassium
 - SO₂, Cl₂, SOCl₂, PCl₃, CH₃SiCl₃
 - Other water-reactive waste
- Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

GROUP 4-A

- Alcohols
- Aldehydes
- Halogenated hydrocarbons
- Nitrated hydrocarbons
- Unsaturated hydrocarbons
- Other reactive organic compounds and solvents

GROUP 4-B

- Concentrated Group 1-A or 1-B wastes
 - Group 2-A wastes
- Potential consequences: Fire, explosion, or violent reaction.

GROUP 5-A

- Spent cyanide and sulfide solutions

GROUP 5-B

- Group 1-B wastes
- Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

GROUP 6-A

- Chlorates
- Chlorine
- Chlorites
- Chromic acid
- Hypochlorites
- Nitrates
- Nitric acid, fuming
- Perchlorates
- Permanganates
- Peroxides
- Other strong oxidizers

GROUP 6-B

- Acetic acid and other organic acids
 - Concentrated mineral acids
 - Group 2-A wastes
 - Group 4-A wastes
 - Other flammable and combustible wastes
- Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

[46 FR 2872, Jan. 12, 1981]

APPENDIX VI—POLITICAL JURISDICTIONS¹ IN WHICH COMPLIANCE WITH § 264.18(a) MUST BE DEMONSTRATED

ALASKA

- | | |
|---------------------------|-------------------------|
| Aleutian Islands | Kodiak |
| Anchorage | Lynn Canal-Icy Straits |
| Bethel | Palmer-Wasilla-Talkeena |
| Bristol Bay | Seward |
| Cordova-Valdez | Sitka |
| Fairbanks-Fort Yukon | Wade Hampton |
| Juneau | Wrangell Petersburg |
| Kenai-Cook Inlet | Yukon-Kuskokwim |
| Ketchikan-Prince of Wales | |

ARIZONA

- | | |
|---------|----------|
| Cochise | Greenlee |
| Graham | Yuma |

CALIFORNIA

All

COLORADO

- | | |
|-----------|------------|
| Archuleta | Mineral |
| Conejos | Rio Grande |
| Hinsdale | Saguache |

HAWAII

Hawaii

IDAHO

- | | |
|------------|-----------|
| Bannock | Franklin |
| Bear Lake | Fremont |
| Bingham | Jefferson |
| Bonneville | Madison |
| Caribou | Onelda |
| Cassia | Power |
| Clark | Teton |

MONTANA

- | | |
|-----------------|-------------|
| Beaverhead | Meagher |
| Broadwater | Missoula |
| Cascade | Park |
| Deer Lodge | Powell |
| Flathead | Sanders |
| Gallatin | Silver Bow |
| Granite | Stillwater |
| Jefferson | Sweet Grass |
| Lake | Teton |
| Lewis and Clark | Wheatland |
| Madison | |

NEVADA

All

¹ These include counties, city-county consolidations, and independent cities. In the case of Alaska, the political jurisdictions are election districts, and, in the case of Hawaii, the political jurisdiction listed is the island of Hawaii.

	NEW MEXICO
Bernalillo	Sante Fe
Catron	Sierra
Grant	Socorro
Hidalgo	Taos
Los Alamos	Torrance
Rio Arriba	Valencia
Sandoval	

	UTAH
Beaver	Piute
Box Elder	Rich
Cache	Salt Lake
Carbon	Sanpete
Davis	Sevier
Duchesne	Summit
Emery	Tooele
Garfield	Utah
Iron	Wasatch
Juab	Washington
Millard	Wayne
Morgan	Weber

	WASHINGTON
Chelan	Mason
Clallam	Okanogan
Clark	Pacific
Cowlitz	Pierce
Douglas	San Juan Islands
Ferry	Skagit
Grant	Skamania
Grays Harbor	Snohomish
Jefferson	Thurston
King	Wahkiakum
Kitsap	Whatcom
Kittitas	Yakima
Lewis	

	WYOMING
Fremont	Teton
Lincoln	Uinta
Park	Yellowstone National
Sublette	Park

[46 FR 57285, Nov. 23, 1981; 47 FR 953, Jan. 8, 1982]

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Subpart A—General

Sec.	
265.1	Purpose, scope, and applicability.
265.2—265.3	[Reserved]
265.4	Imminent hazard action.

Subpart B—General Facility Standards

265.10	Applicability.
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Title 40—Protection of Environment

Sec.	
265.11	Identification number.
265.12	Required notices.
265.13	General waste analysis.
265.14	Security.
265.15	General inspection requirements.
265.16	Personnel training.
265.17	General requirements for ignitable, reactive, or incompatible wastes.

Subpart C—Preparedness and Prevention

265.30	Applicability.
265.31	Maintenance and operation of facility.
265.32	Required equipment.
265.33	Testing and maintenance of equipment.
265.34	Access to communications or alarm system.
265.35	Required aisle space.
265.36	[Reserved]
265.37	Arrangements with local authorities.

Subpart D—Contingency Plan and Emergency Procedures

265.50	Applicability.
265.51	Purpose and implementation of contingency plan.
265.52	Content of contingency plan.
265.53	Copies of contingency plan.
265.54	Amendment of contingency plan.
265.55	Emergency coordinator.
265.56	Emergency procedures.

Subpart E—Manifest System, Recordkeeping, and Reporting

265.70	Applicability.
265.71	Use of manifest system.
265.72	Manifest discrepancies.
265.73	Operating record.
265.74	Availability, retention, and disposition of records.
265.75	Biennial report.
265.76	Unmanifested waste report.
265.77	Additional reports.

Subpart F—Ground-Water Monitoring

265.90	Applicability.
265.91	Ground-water monitoring system.
265.92	Sampling and analysis.
265.93	Preparation, evaluation, and response.
265.94	Recordkeeping and reporting.

Subpart G—Closure and Post-Closure

265.110	Applicability.
265.111	Closure performance standard.
265.112	Closure plan; amendment of plan.
265.113	Closure; time allowed for closure.
265.114	Disposal or decontamination of equipment.

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Sec.	
265.115	Certification of closure.
265.116	[Reserved]
265.117	Post-closure care and use of property.
265.118	Post-closure plan; amendment of plan.
265.119	Notice to local land authority.
265.120	Notice in deed to property.

Subpart H—Financial Requirements

265.140	Applicability.
265.141	Definitions of terms as used in this subpart.
265.142	Cost estimate for closure.
265.143	Financial assurance for closure.
265.144	Cost estimate for post-closure care.
265.145	Financial assurance for post-closure care.
265.146	Use of a mechanism for financial assurance of both closure and post-closure care.
265.147	Liability requirements.
265.148	Incapacity of owners or operators, guarantors, or financial institutions.
265.149	Use of State-required mechanisms.
265.150	State assumption of responsibility.

Subpart I—Use and Management of Containers

265.170	Applicability.
265.171	Condition of containers.
265.172	Compatibility of waste with container.
265.173	Management of containers.
265.174	Inspections.
265.175	[Reserved]
265.176	Special requirements for ignitable or reactive waste.
265.177	Special requirements for incompatible wastes.

Subpart J—Tanks

265.190	Applicability.
265.191	[Reserved]
265.192	General operating requirements.
265.193	Waste analysis and trial tests.
265.194	Inspections.
265.195—265.196	[Reserved]
265.197	Closure.
265.198	Special requirements for ignitable or reactive waste.
265.199	Special requirements for incompatible wastes.

Subpart K—Surface Impoundments

265.220	Applicability.
265.221	[Reserved]
265.222	General operating requirements.
265.223	Containment system.
265.224	[Reserved]
265.225	Waste analysis and trial tests.
265.226	Inspections.
265.227	[Reserved]

Sec.	
265.228	Closure and post-closure.
265.229	Special requirements for ignitable or reactive waste.
265.230	Special requirements for incompatible wastes.

Subpart L—Waste Piles

265.250	Applicability.
265.251	Protection from wind.
265.252	Waste analysis.
265.253	Containment.
265.254—265.255	[Reserved]
265.256	Special requirements for ignitable or reactive waste.
265.257	Special requirements for incompatible wastes.
265.258	Closure and post-closure care.

Subpart M—Land Treatment

265.270	Applicability.
265.271	[Reserved]
265.272	General operating requirements.
265.273	Waste analysis.
265.274—265.275	[Reserved]
265.276	Food chain crops.
265.277	[Reserved]
265.278	Unsaturated zone (zone of aeration) monitoring.
265.279	Recordkeeping.
265.280	Closure and post-closure.
265.281	Special requirements for ignitable or reactive waste.
265.282	Special requirements for incompatible wastes.

Subpart N—Landfills

265.300	Applicability.
265.301	[Reserved]
265.302	General operating requirements.
265.303—265.308	[Reserved]
265.309	Surveying and recordkeeping.
265.310	Closure and post-closure.
265.311	[Reserved]
265.312	Special requirements for ignitable or reactive waste.
265.313	Special requirements for incompatible wastes.
265.314	Special requirements for liquid waste.
265.315	Special requirements for containers.
265.316	Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Subpart O—Incinerators

265.340	Applicability.
265.341	Waste analysis.
265.342—265.344	[Reserved]
265.345	General operating requirements.
265.346	[Reserved]
265.347	Monitoring and inspection.

Sec.
265.348–265.350 (Reserved)
265.351 Closure.
265.352–265.369 (Reserved)

Subpart P—Thermal Treatment

265.370 Applicability.
265.371–265.372 (Reserved)
265.373 General operating requirements.
265.374 (Reserved)
265.375 Waste analysis.
265.376 (Reserved)
265.377 Monitoring and inspections.
265.378–265.380 (Reserved)
265.381 Closure.
265.382 Open burning; waste explosives.

Subpart Q—Chemical, Physical, and Biological Treatment

265.400 Applicability.
265.401 General operating requirements.
265.402 Waste analysis and trial tests.
265.403 Inspections.
265.404 Closure.
265.405 Special requirements for ignitable or reactive waste.
265.406 Special requirements for incompatible wastes.

Subpart R—Underground Injection

265.430 Applicability.

APPENDIX I—RECORDKEEPING INSTRUCTIONS
APPENDIX II—(RESERVED)
APPENDIX III—EPA INTERIM PRIMARY DRINKING WATER STANDARDS
APPENDIX IV—TESTS FOR SIGNIFICANCE
APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

AUTHORITY: Secs. 1006, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended (42 U.S.C. 6905, 6912, and 6924).

SOURCE: 45 FR 33232, May 19, 1980, unless otherwise noted.

EDITORIAL NOTE: The reporting or record-keeping provisions included in the final rule published at 47 FR 32274, July 26, 1982, will be submitted for approval to the Office of Management and Budget (OMB). They are not effective until OMB approval has been obtained. EPA will publish a notice of the effective date of the reporting and record-keeping provisions of this rule after it obtains OMB approval.

Subpart A—General

§ 265.1 Purpose, scope, and applicability.

(a) The purpose of this part is to establish minimum national standards

which define the acceptable management of hazardous waste during the period of interim status.

(b) The standards in this part apply to owners and operators of facilities which treat, store, or dispose of hazardous waste who have fully complied with the requirements for interim status under section 3005(e) of RCRA and § 270.10 of this chapter, until final administrative disposition of their permit application is made, and to those owners and operators of facilities in existence on November 19, 1980, who have failed to provide timely notification as required by section 3010(a) of RCRA, and/or failed to file Part A of the Permit Application as required by 40 CFR 270.10 (e) and (g). These standards apply to all treatment, storage, or disposal of hazardous waste at these facilities after the effective date of these regulations, except as specifically provided otherwise in this part or Part 261 of this chapter. [Comment: As stated in section 3005(a) of RCRA, after the effective date of regulations under that section, i.e., Parts 270 and 124 of this chapter, the treatment, storage, or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility which meets certain conditions until final administrative disposition of the owner's and operator's permit application is made.]

(c) The requirements of this part do not apply to:

(1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act;

[Comment: These Part 265 regulations do apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in paragraph (b) of this section.]

(2) A person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act;

[Comment: These Part 265 regulations do apply to the aboveground treatment or storage of hazardous waste before it is injected underground. These Part 265 regulations also apply to the disposal of hazardous waste by means of underground injection, as provided in paragraph (b) of this Section, until final administrative disposition of a person's permit application is made under RCRA or under an approved or promulgated UIC program.]

(3) The owner or operator of a POTW which treats, stores, or disposes of hazardous waste;

[Comment: The owner or operator of a facility under paragraphs (c)(1) through (c)(3) of this section is subject to the requirements of Part 264 of this chapter to the extent they are included in a permit by rule granted to such a person under Part 122 of this chapter, or are required by § 144.14 of this chapter.]

(4) A person who treats, stores, or disposes of hazardous waste in a State with a RCRA hazardous waste program authorized under Subparts A or B of Part 271 of this chapter, except that the requirements of this part will continue to apply as stated in paragraph (c)(2) of this section, if the authorized State RCRA program does not cover disposal of hazardous waste by means of underground injection;

(5) The owner or operator of a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this part by § 261.5 of this chapter;

(6) The owner or operator of a facility which treats or stores hazardous waste, which treatment or storage meets the criteria in § 261.6(a) of this chapter, except to the extent that § 261.6(b) of this chapter provides otherwise;

(7) A generator accumulating waste on-site in compliance with § 262.34 of this chapter, except to the extent the requirements are included in § 262.34 of this chapter;

(8) A farmer disposing of waste pesticides from his own use in compliance with § 262.51 of this chapter; or

(9) The owner or operator of a totally enclosed treatment facility, as defined in § 260.10.

(10) The owner or operator of an elementary neutralization unit or a

wastewater treatment unit as defined in § 260.10 of this chapter.

(11)(i) Except as provided in paragraph (c)(11)(ii) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of a hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this part must comply with all applicable requirements of Subparts C and D.

(iii) Any person who is covered by paragraph (c)(11)(i) of this section and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and Parts 122–124 of this chapter for those activities.

(12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less.

(13) The addition of absorbent material to waste in a container (as defined in § 260.10 of this chapter) or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and §§ 265.17(b), 265.171, and 265.172 are complied with.

[45 FR 33232, May 19, 1980, as amended at 45 FR 76075, Nov. 17, 1980; 45 FR 86968, Dec. 31, 1980; 46 FR 27480, May 20, 1981; 47 FR 8306, Feb. 25, 1982; 48 FR 2511, Jan. 19, 1983; 48 FR 14295, Apr. 1, 1983; 48 FR 52720, Nov. 22, 1983]

§§ 265.2–265.3 (Reserved)

§ 265.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to section 7003 of RCRA.

Subpart B—General Facility Standards

§ 265.10 Applicability

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.11 Identification number.

Every facility owner or operator must apply to EPA for an EPA identification number in accordance with the EPA notification procedures (45 FR 12746).

§ 265.12 Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date of the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this part and Part 270 of this chapter. (Also see § 270.72 of this chapter.)

[Comment: An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.]

[45 FR 33232, May 19, 1980, as amended at 48 FR 14295, Apr. 1, 1983]

§ 265.13 General waste analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of this part.

(2) The analysis may include data developed under Part 261 of this chapter, and existing published or docu-

mented data on the hazardous waste or on waste generated from similar processes.

[Comment: For example, the facility's record of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by paragraph (a)(1) of this section. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

(3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(ii) For off-site facilities, when the results of the inspection required in paragraph (a)(4) of this section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a) of this section. He must keep this plan at the facility. At a minimum, the plan must specify:

(1) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's prop-

erties to comply with paragraph (a) of (this section);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Appendix I of Part 261 of this chapter; or

(ii) An equivalent sampling method.

[Comment: See § 260.20(c) of this chapter for related discussion.]

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 265.193, 265.225, 265.252, 265.273, 265.345, 265.375, and 265.402.

(c) For off-site facilities, the waste analysis plan required in paragraph (b) of this section must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

§ 265.14 Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless:

(1) Physical contact with the waste, structures, or equipment with the

active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this part.

(b) Unless exempt under paragraphs (a)(1) and (a)(2) of this section, a facility must have:

(1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards of facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

[Comment: The requirements of paragraph (b) of this section are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of paragraph (b)(1) or (b)(2) of this section.]

(c) Unless exempt under paragraphs (a)(1) and (a)(2) of this section, a sign with the legend, "Danger—Unauthorized Personnel Keep Out," must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed

to enter the active portion, and that entry onto the active portion can be dangerous.

[Comment: See § 265.117(b) for discussion of security requirements at disposal facilities during the post-closure care period.]

§ 265.15 General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to: (1) Release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He must keep this schedule at the facility.

(3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in §§ 265.174, 265.194, 265.226, 265.347, 265.377, and 265.403.

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does

not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

§ 265.16 Personnel training.

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this section.

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

§ 265.17 General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this part, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

(1) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility containing the waste; or

(5) Through other like means threaten human health or the environment.

Subpart C—Preparedness and Prevention

§ 265.30 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.31 Maintenance and operation of facility.

Facilities must be maintained and operated to minimize the possibility of

a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

§ 265.32 Required equipment.

All facilities must be equipped with the following, *unless* none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

§ 265.33 Testing and maintenance of equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

§ 265.34 Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, *unless* such a device is not required under § 265.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, *unless* such a device is not required under § 265.32.

§ 265.35 Required aisle space.

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, *unless* aisle space is not needed for any of these purposes.

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§ 265.37 Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

Subpart D—Contingency Plan and Emergency Procedures

§ 265.50 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

§ 265.51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

§ 265.52 Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with §§ 265.51 and 265.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 of this chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.

(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate

emergency services, pursuant to § 265.37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see § 265.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

[45 FR 33233, May 19, 1980, as amended at 46 FR 27480, May 20, 1981]

§ 265.53 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and
(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

§ 265.54 Amendment of contingency plan.

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a

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way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

§ 265.55 Emergency coordinator.

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

[Comment: The emergency coordinator's responsibilities are more fully spelled out in § 265.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.]

§ 265.56 Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and a real extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

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(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 1510 of this Title), or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

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(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

[Comment: Unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the

environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

Subpart E—Manifest System, Recordkeeping, and Reporting

§ 265.70 Applicability.

The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 265.1 provides otherwise. Sections 265.71, 265.72, and 265.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

§ 265.71 Use of manifest system.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest (as defined in § 265.72(a)) on each copy of the manifest;

[Comment: The Agency does not intend that the owner or operator of a facility whose procedures under § 265.13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Section 265.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in § 265.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

[Comment: The Agency does not intend that the owner or operator of a facility whose procedures under § 265.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 265.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

[Comment: Section 262.23(c) of this Chapter requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).]

(5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of Part 262 of this chapter.

[Comment: The provisions of § 262.34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.]

[45 FR 33232, May 19, 1980, as amended at 45 FR 86970, 86974, Dec. 31, 1980]

§ 265.72 Manifest discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater than 10 percent in weight, and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

§ 265.73 Operating record.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

[Comment: See §§ 265.119, 265.279, and 265.309 for related requirements.]

(3) Records and results of waste analysis and trial tests performed as specified in §§ 265.13, 265.193, 265.225, 265.252, 265.273, 265.341, 265.375, and 265.402;

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in § 265.56(j);

(5) Records and results of inspections as required by § 265.15(d) (except these data need be kept only three years);

(6) Monitoring, testing, or analytical data where required by §§ 265.90, 265.94, 265.276, 265.278, 265.280(d)(1), 265.347, and 265.377; and,

[Comment: As required by § 265.94, monitoring data at disposal facilities must be kept throughout the post-closure period.]

(7) All closure cost estimates under § 265.142 and, for disposal facilities, all post-closure cost estimates under § 265.144.

[45 FR 33232, May 19, 1980, as amended at 46 FR 7680, Jan. 23, 1981]

§ 265.74 Availability, retention, and disposition of records.

(a) All records, including plans, required under this part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator.

(b) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator.

(c) A copy of records of waste disposal locations and quantities under § 265.73(b)(2) must be submitted to the Regional Administrator and local land authority upon closure of the facility (see § 265.119).

§ 265.75 Biennial report.

The owner or operator must prepare and submit a single copy of a biennial report to the Regional Administrator by March 1 of each even numbered year. The biennial report must be submitted on EPA Form 8700-13B. The

report must cover facility activities during the previous calendar year and must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) Monitoring data under § 265.94(a)(2)(ii) and (iii), and (b)(2), where required;

(g) The most recent closure cost estimate under § 265.142, and, for disposal facilities, the most recent post-closure cost estimate under § 265.144; and

(h) The certification signed by the owner or operator of the facility or his authorized representative.

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

§ 265.76 Unmanifested waste report.

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in § 263.20(e)(2) of this chapter, and if the waste is not excluded from the manifest requirement by § 261.5 of this chapter, then the owner or operator must prepare and submit a single copy of a report to the Regional Administrator within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated 'Unmanifested Waste Report' and include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste the facility received;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

[Comment: Small quantities of hazardous waste are excluded from regulation under this part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the Agency suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the Agency suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.]

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

§ 265.77 Additional reports.

In addition to submitting the biennial report and unmanifested waste reports described in §§ 265.75 and 265.76, the owner or operator must also report to the Regional Administrator:

(a) Releases, fires, and explosions as specified in § 265.56(j);

(b) Ground-water contamination and monitoring data as specified in §§ 265.93 and 265.94; and

(c) Facility closure as specified in § 265.115.

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

Subpart F—Ground-Water Monitoring

§ 265.90 Applicability.

(a) Within one year after the effective date of these regulations, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a ground-water monitoring program capable of determining the facility's impact on the quality of ground water in the uppermost aquifer underlying

the facility, except as § 265.1 and paragraph (c) of this section provide otherwise.

(b) Except as paragraphs (c) and (d) of this section provide otherwise, the owner or operator must install, operate, and maintain a ground-water monitoring system which meets the requirements of § 265.91, and must comply with §§ 265.92–265.94. This ground-water monitoring program must be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the ground-water monitoring requirements of this subpart may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing, and must be kept at the facility. This demonstration must be certified by a qualified geologist or geotechnical engineer and must establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(ii) Unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics (i.e., geologic materials, physical properties, and rate of ground-water flow); and

(ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that ground-water monitoring of indicator parameters in accordance with §§ 265.91 and 265.92 would show statistically significant increases (or decreases in the case of pH) when

evaluated under § 265.93(b), he may, install, operate, and maintain an alternate ground-water monitoring system (other than the one described in §§ 265.91 and 265.92). If the owner or operator decides to use an alternate ground-water monitoring system he must:

(1) Within one year after the effective date of these regulations, submit to the Regional Administrator a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of § 265.93(d)(3), for an alternate ground-water monitoring system;

(2) Not later than one year after the effective date of these regulations, initiate the determinations specified in § 265.93(d)(4);

(3) Prepare and submit a written report in accordance with § 265.93(d)(5);

(4) Continue to make the determinations specified in § 265.93(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in § 265.94(b).

(e) The ground-water monitoring requirements of this Subpart may be waived with respect to any surface impoundment that (1) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under § 261.22 of this chapter or are listed as hazardous wastes in Subpart D of Part 261 of this chapter only for this reason, and (2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

[45 FR 33232, May 19, 1980, as amended at 47 FR 1255, Jan. 11, 1982]

§ 265.91 Ground-water monitoring system.

(a) A ground-water monitoring system must be capable of yielding ground-water samples for analysis and must consist of:

(1) Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield ground-water samples that are:

(i) Representative of background ground-water quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility; and

(2) Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(b) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g., cement

grout or bentonite slurry) to prevent contamination of samples and the ground water.

§ 265.92 Sampling and analysis.

(a) The owner or operator must obtain and analyze samples from the installed ground-water monitoring system. The owner or operator must develop and follow a ground-water sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures; and
- (4) Chain of custody control.

[Comment: See "Procedures Manual For Ground-water Monitoring At Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussions of sampling and analysis procedures.]

(b) The owner or operator must determine the concentration or value of the following parameters in ground-water samples in accordance with paragraphs (c) and (d) of this section:

- (1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix III.
- (2) Parameters establishing ground-water quality:
 - (i) Chloride
 - (ii) Iron
 - (iii) Manganese
 - (iv) Phenols
 - (v) Sodium
 - (vi) Sulfate

[Comment: These parameters are to be used as a basis for comparison in the event a ground-water quality assessment is required under § 265.93(d).]

(3) Parameters used as indicators of ground-water contamination:

- (i) pH
- (ii) Specific Conductance
- (iii) Total Organic Carbon
- (iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in paragraph (b) of this section. He must do this quarterly for one year.

(2) For each of the indicator parameters specified in paragraph (b)(3) of this section, at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from up-gradient wells during the first year.

(d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

(1) Samples collected to establish ground-water quality must be obtained and analyzed for the parameters specified in paragraph (b)(2) of this section at least annually.

(2) Samples collected to indicate ground-water contamination must be obtained and analyzed for the parameters specified in paragraph (b)(3) of this section at least semi-annually.

(e) Elevation of the ground-water surface at each monitoring well must be determined each time a sample is obtained.

§ 265.93 Preparation, evaluation, and response.

(a) Within one year after the effective date of these regulations, the owner or operator must prepare an outline of a ground-water quality assessment program. The outline must describe a more comprehensive ground-water monitoring program (than that described in §§ 265.91 and 265.92) capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have entered the ground water;

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water; and

(3) The concentrations of hazardous waste or hazardous waste constituents in the ground water.

(b) For each indicator parameter specified in § 265.92(b)(3), the owner or operator must calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with § 265.92(d)(2), and compare these results with its initial

background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance (see Appendix IV) to determine statistically significant increases (and decreases, in the case of pH) over initial background.

(c)(1) If the comparisons for the up-gradient wells made under paragraph (b) of this section show a significant increase (or pH decrease), the owner or operator must submit this information in accordance with § 265.94(a)(2)(ii).

(2) If the comparisons for down-gradient wells made under paragraph (b) of this section show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional ground-water samples from those downgradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d)(1) If the analyses performed under paragraph (c)(2) of this section confirm the significant increase (or pH decrease), the owner or operator must provide written notice to the Regional Administrator—within seven days of the date of such confirmation—that the facility may be affecting ground-water quality.

(2) Within 15 days after the notification under paragraph (d)(1) of this section, the owner or operator must develop and submit to the Regional Administrator a specific plan, based on the outline required under paragraph (a) of this section and certified by a qualified geologist or geotechnical engineer, for a ground-water quality assessment program at the facility.

(3) The plan to be submitted under § 265.90(d)(1) or paragraph (d)(2) of this section must specify:

(i) The number, location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously-gathered ground-water quality information; and

(iv) A schedule of implementation.

(4) The owner or operator must implement the ground-water quality assessment plan which satisfies the requirements of paragraph (d)(3) of this section, and, at a minimum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.

(5) The owner or operator must make his first determination under paragraph (d)(4) of this section as soon as technically feasible, and, within 15 days after that determination, submit to the Regional Administrator a written report containing an assessment of the ground-water quality.

(6) If the owner or operator determines, based on the results of the first determination under paragraph (d)(4) of this section, that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in § 265.92 and paragraph (b) of this section. If the owner or operator reinstates the indicator evaluation program, he must so notify the Regional Administrator in the report submitted under paragraph (d)(5) of this section.

(7) If the owner or operator determines, based on the first determination under paragraph (d)(4) of this section, that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:

(i) Must continue to make the determinations required under paragraph (d)(4) of this section on a quarterly basis until final closure of the facility, if the ground-water quality assessment plan was implemented prior to final closure of the facility; or

(ii) May cease to make the determinations required under paragraph (d)(4) of this section, if the ground-water quality assessment plan was implemented during the post-closure care period.

(c) Notwithstanding any other provision of this subpart, any ground-water

quality assessment to satisfy the requirements of § 265.93(d)(4) which is initiated prior to final closure of the facility must be completed and reported in accordance with § 265.93(d)(5).

(f) Unless the ground water is monitored to satisfy the requirements of § 265.93(d)(4), at least annually the owner or operator must evaluate the data on ground-water surface elevations obtained under § 265.92(e) to determine whether the requirements under § 265.91(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that § 265.91(a) is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement.

§ 265.94 Recordkeeping and reporting.

(a) Unless the ground water is monitored to satisfy the requirements of § 265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses required in § 265.92(c) and (d), the associated ground-water surface elevations required in § 265.92(e), and the evaluations required in § 265.93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following ground-water monitoring information to the Regional Administrator:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in § 265.92(b)(1) for each ground-water monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III.

(ii) Annually: Concentrations or values of the parameters listed in § 265.92(b)(3) for each ground-water monitoring well, along with the required evaluations for these parameters under § 265.93(b). The owner or operator must separately identify any significant differences from initial

background found in the upgradient wells, in accordance with § 265.93(c)(1). During the active life of the facility, this information must be submitted no later than March 1 following each calendar year.

(iii) No later than March 1 following each calendar year: Results of the evaluations of ground-water surface elevations under § 265.93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of § 265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of § 265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Regional Administrator a report containing the results of his or her ground-water quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This information must be submitted no later than March 1 following each calendar year.

[45 FR 33232, May 19, 1980, as amended at 48 FR 3982, Jan. 28, 1983]

Subpart G—Closure and Post-Closure

Source: 46 FR 2875, Jan. 12, 1981, unless otherwise noted.

§ 265.110 Applicability.

Except as § 265.1 provides otherwise: (a) Sections 265.111 through 265.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 265.117 through 265.120 (which concern post-closure care) apply to the owners and operators of all hazardous waste disposal facilities.

§ 265.111 Closure performance standard.

The owner or operator must close his facility in a manner that:

(a) Minimizes the need for further maintenance, and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere.

§ 265.112 Closure plan; amendment of plan.

(a) By May 19, 1981, the owner or operator must have a written closure plan. He must keep a copy of the closure plan and all revisions to the plan at the facility until closure is completed and certified in accordance with § 265.115. This plan must identify the steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life. The closure plan must include, at least:

(1) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description must identify the maximum extent of the operation which will be unclosed during the life of the facility, and how the requirements of §§ 265.111, 265.113, 265.114, and 265.115 and the applicable closure requirements of §§ 265.197, 265.228, 265.280, 265.310, 265.351, 265.381, and 265.404 will be met;

(2) An estimate of the maximum inventory of wastes in storage and in treatment at any time during the life of the facility;

(3) A description of the steps needed to decontaminate facility equipment during closure; and

(4) An estimate of the expected year of closure and a schedule for final closure. The schedule must include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure. (For example, in the case of a landfill, estimates of the time required to treat and dispose of all waste inventory and of the time required to place a final cover must be included.)

(b) The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator must amend the plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure of the facility. The plan must be amended within 60 days of the changes.

(c) The owner or operator must submit his closure plan to the Regional Administrator at least 180 days before the date he expects to begin closure. The owner or operator must submit his closure plan to the Regional Administrator no later than 15 days after:

(1) Termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) Issuance of a judicial decree or compliance order under Section 3008 of RCRA to cease receiving wastes or close.

[Comment: The date when closure commences should be within 30 days after the date on which the owner or operator expects to receive the final volume of wastes.]

(d) The Regional Administrator will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications of the plan within 30 days of the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The Regional Administrator will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval

within 30 days. The Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved closure plan. The Regional Administrator's decision must assure that the approved closure plan is consistent with §§ 265.111, 265.113, 265.114, and 265.115 and the applicable requirements of §§ 265.197, 265.228, 265.280, 265.310, 265.351, 265.381 and 265.404. A copy of this modified plan must be mailed to the owner or operator. If the owner or operator plans to begin closure before November 19, 1981 he must submit the closure plan by May 19, 1981.

§ 265.113 Closure; time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, or 90 days after approval of the closure plan, if that is later, the owner or operator must treat, remove from the site, or dispose of on-site all hazardous wastes in accordance with the approved closure plan. The Regional Administrator may approve a longer period using the procedures under § 265.112(d) if the owner or operator demonstrates that:

(1)(i) The activities required to comply with this paragraph will, of necessity, take him longer than 90 days to complete; or

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment.

(b) The owner or operator must complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes or 180 days after approval of the closure plan, if that is later. The Regional Administrator may approve a longer closure period using the procedures under

§ 265.112(c) if the owner or operator demonstrates that:

(1)(i) The closure activities will, of necessity, take him longer than 180 days to complete; or

(ii)(A) The facility has the capacity to receive additional waste;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site;

(C) Closure of the facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but inactive facility.

[Comment: Under paragraphs (a)(1)(ii) and (b)(1)(ii), of this section, if operation of the facility is recommenced, the Regional Administrator may defer completion of closure activities until the new operation is terminated]

§ 265.114 Disposal or decontamination of equipment.

When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all hazardous waste and residues.

§ 265.115 Certification of closure.

When closure is completed, the owner or operator must submit to the Regional Administrator certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

§ 265.116 [Reserved]

§ 265.117 Post-closure care and use of property.

(a) Post-closure care must continue for 30 years after the date of completing closure and must consist of at least the following:

(1) Ground-water monitoring and reporting in accordance with the requirements of Subpart F, and

(2) Maintenance of monitoring and waste containment systems as specified in §§ 265.91, 265.223, 265.228, 265.280, and 265.310, where applicable.

(b) The Regional Administrator may require continuation of any of the security requirements of § 265.14 for 30 years after the date closure has been completed when:

(1) Wastes may remain exposed after completion of closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

In extending any of these requirements the Regional Administrator will use the procedures of § 265.118(c).

(c) Post-closure use of property on or in which hazardous wastes remain after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the owner or operator can demonstrate to the Regional Administrator, either in the post-closure plan or by petition, through the procedures in § 265.118(c) or (f), as appropriate, that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be performed in accordance with the provisions of the approved post-closure plan as specified in § 265.118.

§ 265.118 Post-closure plan; amendment of plan.

(a) By May 19, 1981, the owner or operator of a disposal facility must have a written post-closure plan. He must keep a copy of the post-closure plan and all revisions to the plan at the facility until the post-closure care period begins. The post-closure plan must identify the activities which will be carried on after closure and the frequency of these activities, and include at least:

(1) A description of the planned ground-water monitoring activities and frequencies at which they will be performed to comply with Subpart F during the post-closure period;

(2) A description of the planned maintenance activities and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment structures as specified in §§ 265.223, 265.228, 265.280, and 265.310, where applicable; and

(ii) The function of the facility monitoring equipment as specified in § 265.91; and

(3) The name, address, and phone number of the person or office to contact about the disposal facility during the post-closure care period. This person or office must keep an updated post-closure plan during the post-closure care period.

(b) The owner or operator may amend his post-closure plan at any time during the active life of the disposal facility. The owner or operator must amend his plan any time changes in operating plans or facility design, or events which occur during the active life of the facility, affect his post-closure plan. The plan must be amended within 60 days after the changes or events occur.

(c) The owner or operator of a disposal facility must submit his post-closure plan to the Regional Administrator at least 180 days before the date he expects to begin closure. The date when he "expects to begin closure" should be immediately after the date on which he expects to receive the final volume of wastes. The owner or operator must submit his closure plan to the Regional Administrator no later than 15 days after:

(1) Termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) Issuance of a judicial decree or compliance order under Section 3008 of RCRA to cease receiving wastes or close.

[Comment: The date when closure commences should be within 30 days after the date on which the owner or operator expects to receive the final volume of wastes.]

(d) The Regional Administrator will provide the owner or operator and the public through a newspaper notice the opportunity to submit written comments on the plan and request modifications of the plan including modification of the 30 year post-closure period required in § 265.117 within 30 days of

the date of the notice. He may also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Regional Administrator will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined.) The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval within 30 days. The Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved post-closure plan. The Regional Administrator must base his decision upon the criteria required of petitions under paragraph (f)(1)(i) of this section. A copy of this modified plan must be mailed to the owner or operator. If an owner or operator plans to begin closure before November 19, 1981, he must submit the post-closure plan by May 19, 1981.

(e) The owner or operator may amend his post-closure plan during the post-closure care period. The owner or operator must amend his plan any time changes in monitoring or maintenance plans or events which occur during the post-closure care period affect the post-closure plan. The owner or operator must petition the Regional Administrator within 60 days of the changes or events, under the procedures of paragraph (f) of this section, to allow the plan to be modified.

(f) The post-closure plan (or period) may be modified during the post-closure care period or at the end of the post-closure care period in either of the following two ways:

(1) The owner or operator or any member of the public may petition the Regional Administrator to extend or reduce the post-closure care period based on cause, or alter the require-

ments of the post-closure care period based on cause.

(i) The petition must include evidence demonstrating that:

(A) The secure nature of the facility makes the post-closure care requirement(s) unnecessary or supports reduction of the post-closure care period specified in the current post-closure plan (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the facility is secure), or

(B) The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment.

(ii) These petitions will be considered by the Regional Administrator only when they present new and relevant information not previously considered by the Regional Administrator. Whenever the Regional Administrator is considering a petition, he will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Regional Administrator will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined.) After considering the comments, he will issue a final determination, based upon the criteria set forth in paragraph (f)(1) of this section.

(iii) If the Regional Administrator denies the petition, he will send the petitioner a brief written response giving a reason for the denial.

(2) The Regional Administrator may tentatively decide to modify the post-closure plan if he deems it necessary to prevent threats to human health and the environment. He may propose to extend or reduce the post-closure care period based on cause or alter the

requirements of the post-closure care period based on cause.

(i) The Regional Administrator will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in subparagraph (a)(1)(ii) of this section. After considering the comments, he will issue a final determination.

(ii) The Regional Administrator will base his final determination upon the same criteria as required for petitions under paragraph (f)(1)(i) of this section.

[Comment: A modification of the post-closure plan may include where appropriate the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the Regional Administrator would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.]

§ 265.119 Notice to local land authority.

Within 90 days after closure is completed, the owner or operator of a disposal facility must submit to the local land authority and to the Regional Administrator a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local land authority must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in § 265.117(c). In addition, the owner or operator must submit to the Regional Administrator and to the local land authority a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. The owner or operator must identify the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location, and quantity of the wastes to the best of his

knowledge and in accordance with any records he has kept.

§ 265.120 Notice in deed to property.

The owner of the property on which a disposal facility is located must record, in accordance with State law, a notation on the deed to the facility property—or on some other instrument which is normally examined during title search—that will in perpetuity notify any potential purchaser of the property that: (a) the land has been used to manage hazardous waste, and (b) its use is restricted under § 265.117(c).

Subpart H—Financial Requirements

SOURCE: 47 FR 15064, Apr. 7, 1982, unless otherwise noted.

§ 265.140 Applicability.

(a) The requirements of §§ 265.142, 265.143, and 265.147 through 265.151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this section or in § 265.1.

(b) The requirements of §§ 265.144, 265.145, and 265.146 apply only to owners and operators of disposal facilities.

(c) States and the Federal government are exempt from the requirements of this subpart.

§ 265.141 Definitions of terms as used in this subpart.

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of § 265.112.

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with § 265.142 (a), (b), and (c).

(c) "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with § 265.144 (a), (b), and (c).

(d) "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of §§ 265.117 through 265.120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms "bodily injury" and "property damage" shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practice, are excluded from coverage in liability policies for bodily injury

and property damage. The Agency intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

"Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

[47 FR 16558, Apr. 16, 1982]

§ 265.142 Cost estimate for closure.

(a) On May 19, 1981, the owner or operator must prepare a written estimate, in current dollars, of the cost of closing the facility in accordance with the closure plan as specified in § 265.112. The closure cost estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

(b) The owner or operator must adjust the closure cost estimate for inflation within 30 days after each anniversary of the date on which the first closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(i) and (b)(ii) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its *Survey of Current Business*. The inflation factor is the

result of dividing the latest published annual Deflator by the Deflator for the previous year.

(i) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) The owner or operator must revise the closure cost estimate whenever a change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in § 265.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with §§ 265.142 (a) and (c) and, when this estimate has been adjusted in accordance with § 265.142(b), the latest adjusted closure cost estimate.

§ 265.143 Financial assurance for closure.

By the effective date of these regulations, an owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) *Closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a closure trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the

amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current closure cost estimate, except as provided in § 265.143(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{\text{CE} - \text{CV}}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or

operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing.

(10) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for closure activities, the Regional Administrator will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Regional Administrator specifies in writing. If the Regional Administrator has reason to believe that the cost of closure will be significantly greater than the value of the trust fund, he may withhold reimbursement of such amounts as he deems prudent

until he determines, in accordance with § 265.143(h), that the owner or operator is no longer required to maintain financial assurance for closure.

(11) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(b) *Surety bond guaranteeing payment into a closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in § 265.143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in § 265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.143(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification

Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in § 265.143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Regional Administrator.

(8) Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other interim status requirements when required to do so, the Regional Administrator may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the

Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(10) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.143(h).

(d) *Closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. By the effective date of these regulations the owner or operator must submit to the Regional Administrator a letter from an insurer stating that the insurer is considering issuance of closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Regional Administrator or establish other financial assurance as specified in this section. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The closure insurance policy must be issued for a face amount at least equal to the current closure cost

estimate, except as provided in § 265.143(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for closure activities, the Regional Administrator will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Regional Administrator specifies in writing. If the Regional Administrator has reason to believe that the cost of closure will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with § 265.143(h), that the owner or operator is no longer required to maintain financial assurance for closure of the facility.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (d)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon

receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this

section to cover the increase. When- ever the current closure cost estimate decreases, the face amount may be re- duced to the amount of the current closure cost estimate following written approval by the Regional Administra- tor.

(10) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as speci- fied in this section; or

(ii) The Regional Administrator re- leases the owner or operator from the requirements of this section in accord- ance with § 265.143(h).

(e) *Financial test and corporate guarantee for closure.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the crite- ria of either paragraph (e)(1)(i) or (e)(1)(ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, deple- tion, and amortization to total liabil- ities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post- closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post- closure cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 per- cent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief fi- nancial officer (§ 264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Re- gional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certi- fied public accountant's report on ex- amination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certi- fied public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial offi- cer specifies as having been derived from the independently audited, year- end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that proce- dure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time al- lowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these reg- ulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or opera- tor's facilities to be covered by the fi-

ancial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identifi- cation Number, name, address, and current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end finan- cial statements of the owner or opera- tor for such fiscal year will be audited by an independent certified public ac- countant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must con- sist of all three items specified in para- graph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Regional Ad- ministrator of intent to establish alter- nate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or opera- tor must provide the alternate finan- cial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the Regional Adminis- trator finds, on the basis of such re-

ports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assur- ance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public ac- countant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Adminis- trator will evaluate other qualifica- tions on an individual basis. The owner or operator must provide alter- nate financial assurance as specified in this section within 30 days after notifi- cation of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as speci- fied in this section; or

(ii) The Regional Administrator re- leases the owner or operator from the requirements of this section in accord- ance with § 265.143(h).

(10) An owner or operator may meet the requirements of this section by ob- taining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent cor- poration of the owner or operator. The guarantor must meet the require- ments for owners or operators in para- graphs (e)(1) through (e)(8) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording speci- fied in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility cov- ered by the corporate guarantee in ac- cordance with the closure plan and other interim status requirements

whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 265.143(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for closure of the facility.

(g) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of

financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that closure has been accomplished in accordance with the closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for closure of the particular facility, unless the Regional Administrator has reason to believe that closure has not been in accordance with the closure plan.

§ 265.144 Cost estimate for post-closure care.

(a) On May 19, 1981, the owner or operator of a disposal facility must prepare a written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in §§ 265.117 through 265.120. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Subpart G of Part 265.

(b) During the operating life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 30 days after each anniversary of the date on which the first post-closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(1) and (2) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its *Survey of Current Business*. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) The owner or operator must revise the post-closure cost estimate during the operating life of the facility whenever a change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in § 265.144(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with § 265.144 (a) and (c) and, when this estimate has been adjusted in accordance with § 265.144(b), the latest adjusted post-closure cost estimate.

§ 265.145 Financial assurance for post-closure care.

By the effective date of these regulations, an owner or operator of each disposal facility must establish financial assurance for post-closure care of the facility. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) *Post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a post-closure trust fund which conforms to the requirements of this paragraph and submitting an original-

ly signed duplicate of the trust agreement to the Regional Administrator. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current post-closure cost estimate, except as provided in § 265.145(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{\text{CE} - \text{CV}}{Y}$$

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the

current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (7) or (8) of this section, the Regional Administrator will instruct the trustee to release to the

owner or operator such funds as the Regional Administrator specifies in writing.

(10) During the period of post-closure care, the Regional Administrator may approve a release of funds if the owner or operator demonstrates to the Regional Administrator that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure activities, the Regional Administrator will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Regional Administrator specifies in writing.

(12) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(b) *Surety bond guaranteeing payment into a post-closure trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust

fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in § 265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause

the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) *Post-closure letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the require-

ments of the trust fund specified in § 265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 265.145(a);

(B) Updating of Schedule A of the trust agreement (see § 264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in § 265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit

to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(8) During the period of post-closure care, the Regional Administrator may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Regional Administrator that the amount exceeds the remaining cost of post-closure care.

(9) Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other interim status requirements, the Regional Administrator may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(11) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(d) *Post-closure insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining post-closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator. By the effective date of these regulations the owner or operator must submit to the Regional Administrator a letter from an insurer stating that the insurer is considering issuance of post-closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Regional Administrator or establish other financial assurance as specified in this section. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 264.151(e).

(3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in § 265.145(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party

or parties as the Regional Administrator specifies.

(5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Regional Administrator. Within 60 days after receiving bills for post-closure activities, the Regional Administrator will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Regional Administrator specifies in writing.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (d)(11) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in the section, will constitute a significant violation of these regulations, warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with

the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Regional Administrator.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amounts of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(b).

(e) *Financial test and corporate guarantee for post-closure care.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria either of paragraph (e)(1)(i) or (e)(1)(ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets in the United States amounting to a least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter

from the owner's or operator's chief financial officer (§ 264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and the

current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's latest complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Regional Administrator may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Regional Administrator that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 265.145(h).

(11) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (9) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in § 264.151(h). The corporate guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in

accordance with the post-closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in § 265.145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional Administrator may use any or all of the mechanisms to provide for post-closure care of the facility.

(g) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance

mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) *Release of the owner or operator from the requirements of this section.*

When an owner or operator has completed, to the satisfaction of the Regional Administrator, all post-closure care requirements in accordance with the post-closure plan, the Regional Administrator will, at the request of the owner or operator, notify him in writing that he is no longer required by this section to maintain financial assurance for post-closure care of the particular facility.

§ 265.146 *Use of a mechanism for financial assurance of both closure and post-closure care.*

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both §§ 265.143 and 265.145. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established

and maintained for financial assurance of closure and of post-closure care.

§ 265.147 *Liability requirements.*

(a) *Coverage for sudden accidental occurrences.* By the effective date of these regulations, an owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (a)(1), (2), and (3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrator if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by

passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage demonstrated must total at least the minimum amounts required by this paragraph.

(b) *Coverage for nonsudden accidental occurrences.* An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily damage and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 264.151(i). The wording of the certificate of insurance must be identical to the wording specified in § 264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the busi-

ness of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage must total at least the minimum amounts required by this paragraph.

(4) The required liability coverage for nonsudden accidental occurrences must be demonstrated by the dates listed below. The total sales or revenues of the owner or operator in all lines of business, in the fiscal year preceding the effective date of these regulations, will determine which of the dates applies. If the owner and operator of a facility are two different parties, or if there is more than one owner or operator, the sales or revenues of the owner or operator with the largest sales or revenues will determine the date by which the coverage must be demonstrated. The dates are as follows:

(i) For an owner or operator with sales or revenues totalling \$10 million or more, 6 months after the effective date of these regulations.

(ii) For an owner or operator with sales or revenues greater than \$5 million but less than \$10 million, 18 months after the effective date of these regulations.

(iii) All other owners or operators, 30 months after the effective date of these regulations.

(5) By the date 6 months after the effective date of these regulations an owner or operator who is within either of the last two categories (paragraphs (b)(4)(ii) or (b)(4)(iii) of this section) must, unless he has demonstrated liability coverage for nonsudden accidental occurrences, send a letter to the Regional Administrator stating the date by which he plans to establish such coverage.

(c) *Request for variance.* If an owner or operator can demonstrate to the satisfaction of the Regional Adminis-

trator that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Regional Administrator. The request for a variance must be submitted in writing to the Regional Administrator. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section. The Regional Administrator will process a variance request as if it were a permit modification request under § 270.41(a)(5) of this chapter and subject to the procedures of § 124.5 of this chapter. Notwithstanding any other provision, the Regional Administrator may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to grant a variance.

(d) *Adjustments by the Regional Administrator.* If the Regional Administrator determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Regional Administrator may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Regional Administra-

tor determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator requests to determine whether cause exists for such adjustments of level or type of coverage. The Regional Administrator will process an adjustment of the level of required coverage as if it were a permit modification under § 270.41(a)(5) of this chapter and subject to the procedures of § 124.5 of this chapter. Notwithstanding any other provision, the Regional Administrator may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to adjust the level or type of required coverage.

(e) *Period of coverage.* An owner or operator must continuously provide liability coverage for a facility as required by this section until certifications of closure of the facility, as specified in § 265.115, are received by the Regional Administrator.

(f) *Financial test for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1)(i) or (f)(1)(ii):

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least \$10 million; and

(C) Assets in the United States amounting to either: (1) At least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least \$10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either: (1) at least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 264.151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by §§ 264.143(f), 264.145(f), 265.143(e), and 265.145(e), and liability coverage, he must submit the letter specified in § 264.151(g) to cover both forms of financial responsibility; a separate letter as specified in § 264.151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention

which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in paragraph (f)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (f)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance for the entire amount of required liability coverage as specified in this section. Evidence of insurance must be submitted to the Regional Administrator within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) Notwithstanding any other provision of this part, an owner or operator using liability insurance to satisfy the requirements of this section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

(Approved by the Office of Management and Budget under control number 2000-0445, for paragraphs (a)(1)(i), (b)(1)(i), (b)(5), (c), (d), and (f) (3) through (6).

[47 FR 16558, Apr. 16, 1982, as amended at 47 FR 28627, July 1, 1982; 47 FR 30447, July 13, 1982; 48 FR 30115, June 30, 1983]

§ 265.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after com-

mencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 265.143(e) and 265.145(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of § 265.143, § 265.145, or § 265.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 265.149 Use of State-required mechanisms.

(a) For a facility located in a State where EPA is administering the requirements of this Subpart but where the State has hazardous waste regulations that include requirements for financial assurance of closure or post-closure care or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 265.143, § 265.145, or § 265.147 if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanisms specified in this Subpart. The Regional Administrator will evaluate the equivalence of the mechanisms principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable

for meeting the requirements of this Subpart. The submission must include the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 265.143, § 265.145, or § 265.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 265.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure, post-closure care, or liability requirements of this Part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 265.143, § 265.145, or § 265.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this Subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Ad-

ministrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this Subpart. The letter from the State must include, or have attached to it, the following information: the facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of §§ 265.143, § 265.145, or § 265.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by use of both the State's assurance and additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

Subpart I—Use and Management of Containers

§ 265.170 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as § 265.1 provides otherwise.

§ 265.171 Condition of containers.

If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.

§ 265.172 Compatibility of waste with container.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

§ 265.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[Comment: Re-use of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.]

[45 FR 33232, May 19, 1980, as amended at 45 FR 78529, Nov. 25, 1980]

§ 265.174 Inspections.

The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

[Comment: See § 265.171 for remedial action required if deterioration or leaks are detected.]

§ 265.175 [Reserved]

§ 265.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[Comment: See § 265.17(a) for additional requirements.]

§ 265.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials. (see Appendix V for examples) must not be placed in the same container, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see Appendix V for examples), unless § 265.17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

Subpart J—Tanks

§ 265.190 Applicability.

The regulations in this subpart apply to owners and operators of facilities that use tanks to treat or store hazardous waste, except as § 265.1 provides otherwise.

§ 265.191 [Reserved]

§ 265.192 General operating requirements.

(a) Treatment or storage of hazardous waste in tanks must comply with § 265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capac-

ity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

(d) Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., a waste feed cutoff system or by-pass system to a stand-by tank).

[Comment: These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc..)]

§ 265.193 Waste analysis and trial tests.

(a) In addition to the waste analysis required by § 265.13, whenever a tank is to be used to:

(1) Chemically treat or store a hazardous waste which is substantially different from waste previously treated or stored in that tank; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that tank; the owner or operator must, before treating or storing the different waste or using the different process:

(i) Conduct waste analyses and trial treatment or storage tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar storage or treatment of similar waste under similar operating conditions;

to show that this proposed treatment or storage will meet all applicable requirements of § 265.192(a) and (b).

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.198 and 265.199. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.194 Inspections.

(a) The owner or operator of a tank must inspect, where present:

(1) Discharge control equipment (e.g., waste feed cut-off systems, by-pass systems, and drainage systems), at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each oper-

ating day, to ensure that the tank is being operated according to its design;

(3) The level of waste in the tank, at least once each operating day, to ensure compliance with § 265.192(c);

(4) The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

[Comment: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§§ 265.195—265.196 [Reserved]

§ 265.197 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from tanks, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this Chapter, that any solid waste removed from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

§ 265.198 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a tank, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter, and (ii) § 265.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or

(3) The tank is used solely for emergencies.

(b) The owner or operator of a facility which treats or stores ignitable or

reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981), (incorporated by reference, see § 260.11).

[45 FR 33232, May 19, 1980, as amended at 46 FR 35249, July 7, 1981]

§ 265.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same tank, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless § 265.17(b) is complied with.

Subpart K—Surface Impoundments

§ 265.220 Applicability.

The regulations in this Subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as § 265.1 provides otherwise.

§ 265.221 [Reserved]

§ 265.222 General operating requirements.

A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. There must be at least 60 centimeters (2 feet) of freeboard.

[Comment: Any point source discharge from a surface impoundment to waters of the United States is subject to the requirements of Section 402 of the Clean Water Act, as amended. Spills may be subject to Section 311 of that Act.]

§ 265.223 Containment system.

All earthen dikes must have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

§ 265.224 [Reserved]

§ 265.225 Waste analysis and trial tests.

(a) In addition to the waste analyses required by § 265.13, whenever a surface impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator must, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with § 265.17(b).

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.229 and 265.230. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.226 Inspections.

(a) The owner or operator must inspect:

(1) The freeboard level at least once each operating day to ensure compliance with § 265.222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

[Comment: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§ 265.227 [Reserved]

§ 265.228 Closure and post-closure.

(a) At closure, the owner or operator may elect to remove from the impoundment:

- (1) Standing liquids;
- (2) Waste and waste residues;
- (3) The liner, if any; and

(4) Underlying and surrounding contaminated soil.

(b) If the owner or operator removes all the impoundment materials in paragraph (a) of this section, or can demonstrate under § 261.3(c) and (d) of this chapter that none of the materials listed in paragraph (a) of this Section remaining at any stage of removal are hazardous wastes, the impoundment is not further subject to the requirements of this part.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3 (c) or (d) of this chapter, that any solid waste removed from the surface impoundment is not a hazardous waste, he becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter. The surface impoundment may be subject to Part 257 of this chapter even if it is not subject to this Part.]

(c) If the owner or operator does not remove all the impoundment materials in paragraph (a) of this section, or does not make the demonstration in paragraph (b) of this section, he must close the impoundment and provide post-closure care as for a landfill under Subpart G and § 265.310. If necessary to support the final cover specified in the approved closure plan, the owner or operator must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

[Comment: The closure requirements under § 265.310 will vary with the amount and nature of the residue remaining, if any, and the degree of contamination of the underlying and surrounding soil. Section 265.117(d) allows the Regional Administrator to vary post-closure care requirements.]

§ 265.229 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23

of this chapter, and (ii) § 265.17(b) is complied with; or

(2) The surface impoundment is used solely for emergencies.

§ 265.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same surface impoundment, unless § 265.17(b) is complied with.

Subpart L—Waste Piles

§ 265.250 Applicability.

The regulations in this subpart apply to owners and operators of facilities that treat or store hazardous waste in piles, except as § 265.1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under Subpart N.

§ 265.251 Protection from wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind must cover or otherwise manage the pile so that wind dispersal is controlled.

§ 265.252 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless (1) The only wastes the facility receives which are amenable to piling are compatible with each other, or (2) the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted must be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis must include a visual comparison of color and texture.

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.256 and 265.257. As required by § 265.73, the owner or operator must place the results of this

analysis in the operating record of the facility.]

§ 265.253 Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a)(1) The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

(3) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

(4) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b)(1) The pile must be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

[Comment: If collected leachate or run-off is discharged through a point source to waters of the United States, it is subject to the requirements of Section 402 of the Clean Water Act, as amended.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32367, July 26, 1982]

§§ 265.254—265.255 [Reserved]

§ 265.256 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive wastes must not be placed in a pile, unless:

(1) Addition of the waste to an existing pile (i) results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter, and (ii) complies with § 265.17(b); or

(2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

§ 265.257 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same pile, unless § 265.17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.]

(c) Hazardous waste must not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with § 265.17(b).

§ 265.258 Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (§ 265.310).

[47 FR 32368, July 26, 1982]

Subpart M—Land Treatment

§ 265.270 Applicability.

The regulations in this subpart apply to owners and operators of hazardous waste land treatment facilities, except as § 265.1 provides otherwise.

§ 265.271 [Reserved]

§ 265.272 General operating requirements.

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or non-hazardous by biological degradation or chemical reactions occurring in or on the soil.

(b) The owner or operator must design, construct, operate, and maintain a run-off control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 25-year storm.

(c) The owner or operator must design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 25-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982]

§ 265.273 Waste analysis.

In addition to the waste analyses required by § 265.13, before placing a hazardous waste in or on a land treatment facility, the owner or operator must:

(a) Determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in Table I of § 261.24 of this chapter that cause a waste to exhibit the EP toxicity characteristic;

(b) For any waste listed in Part 261, Subpart D, of this chapter, determine

the concentrations of any substances which caused the waste to be listed as a hazardous waste; and

(c) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that the constituent is not present.

[Comment: Part 261 of this chapter specifies the substances for which a waste is listed as a hazardous waste. As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.281 and 265.282. As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§§ 265.274—265.275 [Reserved]

§ 265.276 Food chain crops.

(a) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and will be grown in the future, must notify the Regional Administrator within 60 days after the effective date of this part.

[Comment: The growth of food chain crops at a facility which has never before been used for this purpose is a significant change in process under § 122.72(c) of this chapter. Owners or operators of such land treatment facilities who propose to grow food chain crops after the effective date of this part must comply with § 122.72(c) of this chapter.]

(b)(1) Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under § 265.273(b):

(i) Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g., by grazing); or

(ii) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

(2) The information necessary to make the demonstration required by paragraph (b)(1) of this section must be kept at the facility and must, at a minimum:

(i) Be based on tests for the specific waste and application rates being used at the facility; and

(ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of paragraphs (c)(1) (i) through (iii) of this section or all requirements of paragraphs (c)(2) (i) through (iv) of this section are met.

(1)(i) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time period	Annual Cd application rate (kg/ha)
Present to June 30, 1984.....	2.0
July 1, 1984 to Dec. 31, 1986.....	1.25
Beginning Jan. 1, 1987.....	0.5

(iii) The cumulative application of cadmium from waste does not exceed the levels in either paragraph (c)(1)(iii)(A) of this section or paragraph (c)(1)(iii)(B) of this section.

(A)

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Back-ground soil pH less than 6.5	Back-ground soil pH greater than 6.5
Less than 5.....	5	5
5 to 15.....	5	10

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Back-ground soil pH less than 6.5	Back-ground soil pH greater than 6.5
Greater than 15.....	5	20

(B) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below: *Provided*, that the pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food chain crops are grown.

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5.....	5
5 to 15.....	10
Greater than 15.....	20

(2)(i) The only food chain crop produced is animal feed.

(ii) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with paragraph (c)(2) of this section.

[Comment: As required by § 265.73, if an owner or operator grows food chain crops on his land treatment facility, he must place the information developed in this section in the operating record of the facility.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982; 48 FR 14295, Apr. 1, 1983]

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§ 265.277 (Reserved)

§ 265.278 Unsaturated zone (zone of aeration) monitoring.

(a) The owner or operator must have in writing, and must implement, an unsaturated zone monitoring plan which is designed to:

(1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and

(2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring must be conducted before or in conjunction with the monitoring required under paragraph (a)(1) of this section.

(b) The unsaturated zone monitoring plan must include, at a minimum:

(1) Soil monitoring using soil cores, and

(2) Soil-pore water monitoring using devices such as lysimeters.

(c) To comply with paragraph (a)(1) of this section, the owner or operator must demonstrate in his unsaturated zone monitoring plan that:

(1) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(2) The number of soil and soil-pore water samples to be taken is based on the variability of:

(i) The hazardous waste constituents (as identified in § 265.273(a) and (b)) in the waste and in the soil; and

(ii) The soil type(s); and

(3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.

(d) The owner or operator must keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

(e) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under § 265.273 (a) and (b).

[Comment: As required by § 265.73, all data and information developed by the owner or

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operator under this section must be placed in the operating record of the facility.]

§ 265.279 Recordkeeping.

The owner or operator must include hazardous waste application dates and rates in the operating record required under § 265.73.

[47 FR 32368, July 26, 1982]

§ 265.280 Closure and post-closure.

(a) In the closure plan under § 265.112 and the post-closure plan under § 265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with § 265.276 concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (a) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water and drinking water sources);

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Unsaturated zone monitoring information obtained under § 265.278; and

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(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of paragraph (a) of this section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(i) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control); and

(ii) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(3) Monitoring of ground water.

(d) In addition to the requirements of Subpart G of this part, during the closure period the owner or operator of a land treatment facility must:

(1) Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) Maintain the run-on control system required under § 265.272(b);

(3) Maintain the run-off management system required under § 265.272(c); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with § 265.115, when closure is completed the owner or operator may submit to the Regional Administrator certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of § 265.117, during the post-closure care period the owner or operator of a land treatment unit must:

(1) Continue soil-core monitoring by collecting and analyzing samples in a

manner and frequency specified in the post-closure plan;

(2) Restrict access to the unit as appropriate for its post-closure use;

(3) Assure that growth of food chain crops complies with § 265.276; and

(4) Control wind dispersal of hazardous waste.

[45 FR 32322, May 19, 1980, as amended at 47 FR 32368, July 26, 1982]

§ 265.281 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be land treated unless:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 265.21 or § 261.23 of this chapter; and

(2) Section 264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

[47 FR 32368, July 26, 1982]

§ 265.282 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials (see Appendix V for examples), must not be placed in the same land treatment area, unless § 265.17(b) is complied with.

Subpart N—Landfills

§ 265.300 Applicability.

The regulations in this subpart apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as § 265.1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this Subpart.

§ 265.301 (Reserved)

§ 265.302 General operating requirements.

(a) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active por-

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tion of the landfill during peak discharge from at least a 25-year storm.

(b) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(c) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.312 and 265.313. As required by § 265.73, the owner or operator must place the results of these analyses in the operating record of the facility.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982]

§§ 265.303—265.308 [Reserved]

§ 265.309 Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required in § 265.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

§ 265.310 Closure and post-closure.

(a) The owner or operator must place a final cover over the landfill, and the closure plan under § 265.112 must specify the function and design of the cover. In the post-closure plan under § 265.118, the owner or operator must include the post-closure care requirements of paragraph (d) of this section.

(b) In the closure and post-closure plans, the owner or operator must ad-

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dress the following objectives and indicate how they will be achieved:

(1) Control of pollutant migration from the facility via ground water, surface water, and air;

(2) Control of surface water infiltration, including prevention of pooling; and

(3) Prevention of erosion.

(c) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (b) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents in the landfill;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water, and drinking water sources);

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(6) Geological and soil profiles and surface and subsurface hydrology of the site.

(d) In addition to the requirements of § 265.117, during the post-closure care period, the owner or operator of a hazardous waste landfill must:

(1) Maintain the function and integrity of the final cover as specified in the approved closure plan;

(2) Maintain and monitor the leachate collection, removal, and treatment system (if there is one present in the landfill) to prevent excess accumulation of leachate in the system;

[Comment: If the collected leachate is a hazardous waste under Part 261 of this Chapter, it must be managed as a hazardous waste in accordance with all applicable requirements of Parts 262, 263, and 265 of this Chapter. If the collected leachate is discharged through a point source to waters of the United States, it is subject to the re-

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quirements of Section 402 of the Clean Water Act, as amended.]

(3) Maintain and monitor the gas collection and control system (if there is one present in the landfill) to control the vertical and horizontal escape of gases;

(4) Protect and maintain surveyed benchmarks; and

(5) Restrict access to the landfill as appropriate for its post-closure use.

§ 265.311 [Reserved]

§ 265.312 Special requirements for ignitable or reactive waste.

(a) Except as provided in paragraph (b) of this section, and in § 265.316, ignitable or reactive waste must not be placed in a landfill, unless the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that:

(1) The resulting waste, mixture, or dissolution or material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; and

(2) Section 265.17(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (a) of this section provided that the wastes are disposed in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

[47 FR 32368, July 26, 1982]

§ 265.313 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be

placed in the same landfill cell, unless § 265.17(b) is complied with.

§ 265.314 Special requirements for liquid waste.

(a) Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) The landfill has a liner and leachate collection and removal system that meets the requirements of § 264.301(a) of this chapter; or

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Containers holding free liquids must not be placed in a landfill unless:

(1) All free-standing liquid (i) has been removed by decanting, or other methods, (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed or (iii) had been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in § 265.316 and is disposed of in accordance with § 265.316.

(c) The date for compliance with paragraph (a) of this section is November 19, 1981. The date for compliance with paragraph (b) of this section is March 22, 1982.

[45 FR 33232, May 19, 1980, as amended at 47 FR 12318, Mar. 22, 1982; 47 FR 32369, July 26, 1982]

§ 265.315 Special requirements for containers.

(a) An empty container must be crushed flat, shredded, or similarly reduced in volume before it is buried beneath the surface of a landfill.

(b) The date for compliance with this section is 12 months after the effective date of this part.

§ 265.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums (lab packs) may

be placed in a landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178 and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

(c) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with § 265.17(b).

(d) Incompatible wastes, as defined in § 260.10(a) of this chapter, must not be placed in the same outside container.

(e) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in § 261.23(a)(5) of this chapter, must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (a) through (d) of this section. Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with paragraphs (a) through (d) of this section without first being treated or rendered non-reactive.

[46 FR 56596, Nov. 17, 1981]

Subpart O—Incinerators

Source: 46 FR 7680, Jan. 23, 1981, unless otherwise noted.

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§ 265.310 Applicability.

(a) The regulations in this subpart apply to owners or operators of facilities that treat hazardous waste in incinerators, except as § 265.1 and paragraph (b) of this section provide otherwise.

(b) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this subpart, except § 265.351 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in Part 261, Appendix VIII, of this chapter, and such documentation is retained at the facility, if the waste to be burned is:

(1) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(2) Listed as a hazardous waste in Part 261, Subpart D, of this chapter solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under Part 261, Subpart C, of this chapter; or

(4) A hazardous waste solely because it possesses the reactivity characteristics described by § 261.23(a) (1), (2), (3), (6), (7), or (8) of this chapter, and will not be burned when other hazardous wastes are present in the combustion zone.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27533, June 24, 1982]

§ 265.341 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollut-

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ants which might be emitted. At a minimum, the analysis must determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

[Comment: As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§§ 265.342—265.344 [Reserved]

§ 265.345 General operating requirements.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

§ 265.346 [Reserved]

§ 265.347 Monitoring and inspections.

The owner or operator must conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments which relate to combustion and emission control must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions must be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(b) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

[46 FR 7678, Jan. 23, 1981, as amended at 47 FR 27533, June 24, 1982]

§§ 265.318—265.350 [Reserved]

§ 265.351 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(d) of this chapter, that the residue removed from his incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262 through 266 of this chapter.]

§§ 265.352—265.369 [Reserved]

Subpart P—Thermal Treatment

§ 265.370 Applicability.

The regulations in this subpart apply to owners and operators of facilities that thermally treat hazardous waste in devices other than incinerators, except as § 265.1 provides otherwise. Thermal treatment in incinerators is subject to the requirements of Subpart O.

§§ 265.371—265.372 [Reserved]

§ 265.373 General operating requirements.

Before adding hazardous waste, the owner or operator must bring his thermal treatment process to steady state (normal) conditions of operation—including steady state operating temperature—using auxiliary fuel or other means, unless the process is a non-continuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

§ 265.374 [Reserved]

§ 265.375 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must sufficiently analyze any waste which he has not previously treated in his thermal process to enable him to establish steady state (normal) or other appropriate (for a

non continuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

- (a) Heating value of the waste;
- (b) Halogen content and sulfur content in the waste; and
- (c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

[Comment: As required by § 265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§ 265.376 [Reserved]

§ 265.377 Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(1) Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions must be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.

(2) The stack plume (emissions), where present, must be observed visually at least hourly for normal appearance (color and opacity). The operator must immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

(3) The complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

§§ 265.378—265.380 [Reserved]

§ 265.381 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that any solid waste removed from his thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

§ 265.382 Open burning; waste explosives.

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives must do so in accordance with the following table and in a manner that does not threaten human health or the environment.

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 to 100	204 meters (670 feet).
101 to 1,000	380 meters (1,250 feet).
1,001 to 10,000	530 meters (1,730 feet).
10,001 to 30,000	690 meters (2,260 feet).

Subpart Q—Chemical, Physical, and Biological Treatment

§ 265.400 Applicability.

The regulations in this Subpart apply to owners and operators of facilities which treat hazardous wastes by chemical, physical, or biological methods in other than tanks, surface

impoundments, and land treatment facilities, except as § 265.1 provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities must be conducted in accordance with Subparts J, K, and M, respectively.

§ 265.401 General operating requirements.

(a) Chemical, physical, or biological treatment of hazardous waste must comply with § 265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment must be equipped with a means to stop this inflow (e.g., a waste feed cut-off system or by-pass system to a standby containment device).

[Comment: These systems are intended to be used in the event of a malfunction in the treatment process or equipment.]

§ 265.402 Waste analysis and trial tests.

(a) In addition to the waste analysis required by § 265.13, whenever:

(1) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or

(2) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste;

the owner or operator must, before treating the different waste or using the different process or equipment:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions;

to show that this proposed treatment will meet all applicable requirements of § 265.401 (a) and (b).

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.405 and

265.406. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.403 Inspections.

(a) The owner or operator of a treatment facility must inspect, where present:

(1) Discharge control and safety equipment (e.g., waste feed cut-off systems, by-pass systems, drainage systems, and pressure relief systems) at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

(3) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(4) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

[Comment: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§ 265.404 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3 (c) or (d) of this chapter, that any solid waste removed from his treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter.]

§ 265.405 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a treatment process or equipment unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under § 261.21 or 261.23 of this chapter, and (ii) § 265.17(b) is complied with; or

(2) The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

§ 265.406 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same treatment process or equipment, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless § 265.17(b) is complied with.

Subpart R—Underground Injection

§ 265.430 Applicability.

Except as § 265.1 provides otherwise:

(a) The owner or operator of a facility which disposes of hazardous waste by underground injection is excluded from the requirements of Subparts G and H of this part.

(b) The requirements of this subpart apply to owners and operators of wells used to dispose of hazardous waste which are classified as Class I under § 144.6(a) of this chapter and which are classified as Class IV under § 144.6(d) of this chapter.

[Comment: In addition to the requirements of Subparts A through E of this Part, the owner or operator of a facility which disposes of hazardous waste by underground injection ultimately must comply with the requirements of §§ 265.431 through 265.437. These sections are reserved at this time. The Agency will propose regulations that would establish those requirements.]

[45 FR 33232, May 19, 1980, as amended at 48 FR 30115, June 30, 1983]

APPENDIX I—RECORDKEEPING INSTRUCTIONS

The recordkeeping provisions of § 265.73 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See § 265.73(b) for additional recordkeeping requirements.

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Part 261 of this chapter which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part 261, Subpart D, of this chapter, the description also must include the process that produced it (for example, solid filter cake from production of _____, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Part 261, Subpart D, of this chapter, and each hazardous waste characteristic defined in Part 261, Subpart C, of this chapter, has a four-digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1; and

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

TABLE 1

Unit of measure	Symbol ¹	Density
Pounds.....	P	
Short tons (2000 lbs).....	T	
Gallons (U.S.).....	G	P/G
Cubic yards.....	Y	T/Y
Kilograms.....	K	
Tonnes (1000 kg).....	M	
Liters.....	L	K/L
Cubic meters.....	C	M/C

¹ Single digit symbols are used here for data processing purposes.

TABLE 2—HANDLING CODES FOR TREATMENT, STORAGE, AND DISPOSAL METHODS

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage

- S01 Container (barrel, drum, etc.)
- S02 Tank
- S03 Waste pile
- S04 Surface impoundment
- S05 Other (specify)

2. Treatment

(a) Thermal Treatment

- T06 Liquid injection incinerator
- T07 Rotary kiln incinerator
- T08 Fluidized bed incinerator
- T09 Multiple hearth incinerator
- T10 Infrared furnace incinerator
- T11 Molten salt destructor
- T12 Pyrolysis
- T13 Wet air oxidation
- T14 Calcination
- T15 Microwave discharge
- T16 Cement kiln
- T17 Lime kiln
- T18 Other (specify)

(b) Chemical Treatment

- T19 Absorption mound
- T20 Absorption field
- T21 Chemical fixation
- T22 Chemical oxidation
- T23 Chemical precipitation
- T24 Chemical reduction
- T25 Chlorination
- T26 Chlorinolysis
- T27 Cyanide destruction
- T28 Degradation
- T29 Detoxification
- T30 Ion exchange
- T31 Neutralization
- T32 Ozonation
- T33 Photolysis
- T34 Other (specify)

(c) Physical Treatment:

(1) Separation of components

- T35 Centrifugation
- T36 Clarification
- T37 Coagulation
- T38 Decanting
- T39 Encapsulation
- T40 Filtration
- T41 Flocculation
- T42 Flotation
- T43 Foaming
- T44 Sedimentation
- T45 Thickening
- T46 Ultrafiltration
- T47 Other (specify)

(2) Removal of Specific Components

- T48 Absorption-molecular sieve

- T49 Activated carbon
- T50 Blending
- T51 Catalysis
- T52 Crystallization
- T53 Dialysis
- T54 Distillation
- T55 Electrodialysis
- T56 Electrolysis
- T57 Evaporation
- T58 High gradient magnetic separation
- T59 Leaching
- T60 Liquid ion exchange
- T61 Liquid-liquid extraction
- T62 Reverse osmosis
- T63 Solvent recovery
- T64 Stripping
- T65 Sand filter
- T66 Other (specify)

(d) Biological Treatment

- T67 Activated sludge
- T68 Aerobic lagoon
- T69 Aerobic tank
- T70 Anaerobic lagoon
- T71 Composting
- T72 Septic tank
- T73 Spray irrigation
- T74 Thickening filter
- T75 Trickling filter
- T76 Waste stabilization pond
- T77 Other (specify)
- T78-79 [Reserved]

3. Disposal

- D80 Underground injection
- D81 Landfill
- D82 Land treatment
- D83 Ocean disposal
- D84 Surface impoundment (to be closed as a landfill)
- D85 Other (specify)

APPENDIX II—[RESERVED]

APPENDIX III—EPA INTERIM PRIMARY DRINKING WATER STANDARDS

Parameter	Maximum level (mg/l)
Arsenic.....	0.05
Barium.....	1.0
Cadmium.....	0.01
Chromium.....	0.05
Fluoride.....	1.4-2.4
Lead.....	0.05
Mercury.....	0.002
Nitrate (as N).....	10
Selenium.....	0.01
Silver.....	0.05
Endrin.....	0.0002
Lindane.....	0.004
Methoxychlor.....	0.1
Toxaphene.....	0.005
2,4-D.....	0.1
2,4,5-TP Silver.....	0.01

Parameter	Maximum level (mg/l)
Fluoride	5 pCi/l
Gross Alpha	15 pCi/l
Gross Beta	4 milirem/yr
Turbidity	1/10
Coliform Bacteria	1/100 ml

[Comment: Turbidity is applicable only to surface water supplies.]

APPENDIX IV—TESTS FOR SIGNIFICANCE

As required in § 265.93(b) the owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic ground-water samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For three of the indicator parameters (specific conductance, total organic carbon, and total organic halogen) a single-tailed Student's t-test must be used to test at the 0.01 level of significance for significant increases over background. The difference test for pH must be a two-tailed Student's t-test at the overall 0.01 level of significance.

The student's t-test involves calculation of the value of a t-statistic for each comparison of the mean (average) concentration or value (based on a minimum of four replicate measurements) of an indicator parameter with its initial background concentration or value. The calculated value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter.

Formulae for calculation of the t-statistic and tables for t-test of significance can be found in most introductory statistics texts.

APPENDIX V—EXAMPLES OF POTENTIALLY INCOMPATIBLE WASTE

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and mate-

rials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A	Group 1-B
Acetylene sludge Alkaline caustic liquids Alkaline cleaner Alkaline corrosive liquids Alkaline corrosive battery fluid Caustic wastewater	Acid sludge Acid and water Battery acid Chemical cleaners Electrolyte, acid Etching acid liquid or solvent
Lime sludge and other corrosive alkalies Lime wastewater	Pickling liquor and other corrosive acids
Lime and water Spent caustic	Spent acid Spent mixed acid Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A	Group 2-B
Aluminum Beryllium Calcium Lithium Magnesium Potassium Sodium Zinc powder Other reactive metals and metal hydrides	Any waste in Group 1-A or 1-B

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

PART 267—INTERIM STANDARDS FOR OWNERS AND OPERATORS OF NEW HAZARDOUS WASTE LAND DISPOSAL FACILITIES

Subpart A—General

- Sec. 267.1 Purpose, scope and applicability.
267.2 Applicability of Part 264 standards.
267.3 Duration of Part 267 standards and their relationship to permits.
267.4 Imminent hazard action.
267.5 Additional permit procedures applicable to Part 267.
267.5 Definitions.

Subpart B—Environmental Performance Standard

- 267.10 Environmental performance standard.

Subpart C—Landfills

- 267.20 Applicability.
267.21 General design requirements.
267.22 General operating requirements.
267.23 Closure and post-closure.
267.24 Treatment of waste.
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Subpart D—Surface Impoundments

- 267.30 Applicability.
267.31 General design requirements.
267.32 General operating requirements.
267.33 Closure and post-closure.
267.34 Treatment of waste.
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Subpart E—Land Treatment

- 267.40 Applicability.
267.41 General design requirements.
267.42 General operating requirements.
267.43 Unsaturated zone monitoring.
267.44 Closure and post-closure.
267.45 Treatment of waste.
267.46 Additional requirements.

Subpart F—Ground-Water Monitoring

- 267.50 Applicability.
267.51 Ground-water monitoring system.
267.52 Ground-water monitoring procedures.
267.53 Additional requirements.

Subpart G—Underground Injection

- 267.60 Applicability.
267.61 General design requirements.
267.62 General operating requirements.
267.63 Closure
267.64 Additional requirements.

Group 3-A	Group 3-B
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium Lithium Metal hydrides Potassium SO ₂ , Cl ₂ , SOCl ₂ , PCl ₅ , CH ₃ SiCl ₃ Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A	Group 4-B
Alcohols Aldehydes Halogenated hydrocarbons Nitrated hydrocarbons Unsaturated hydrocarbons Other reactive organic compounds and solvents	Concentrated Group 1-A or 1-B wastes Group 2-A wastes

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A	Group 5-B
Spent cyanide and sulfide solutions	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A	Group 6-B
Chlorates Chlorine Chlorites Chromic acid Hypochlorites	Acetic acid and other organic acids Concentrated mineral acids Group 2-A wastes Group 4-A wastes Other flammable and combustible wastes
Nitrates Nitric acid, fuming Perchlorates Permanganates Peroxides Other strong oxidizers	

Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

assure compliance with § 267.10. An unsaturated zone monitoring program must include an unsaturated zone monitoring system at the facility or at a representative test plot, as well as procedures for sampling, analysis and evaluation of data. The unsaturated zone monitoring program required by this paragraph must reflect a consideration of:

- (a) The placement and depth of monitoring wells that is necessary to obtain a representative sample of the success of waste treatment in the facility;
- (b) Soil characteristics, including its pH, its permeability and the level of microbial activity in the soil;
- (c) Climatic conditions in the area;
- (d) The potential for rapid migration of waste constituents through the soil; and
- (e) The accessibility of the monitoring system devices for maintenance and repair.

§ 267.44 Closure and post-closure.

(a) A land treatment facility must be closed in a manner that will comply with § 267.10 of this part. The closure plan under § 264.112 of this chapter must specify the measures which will be used to satisfy this paragraph. Proper closure of a land treatment facility must reflect a consideration of:

- (1) The type and amount of waste applied to the facility;
- (2) The mobility and expected rate of migration of the waste;
- (3) Site location, topography and surrounding land use;
- (4) Climatic conditions in the area, including the amount, frequency and pH of precipitation;
- (5) Geologic and soil profiles and surface and subsurface hydrology of the site, including cation exchange capacity, total organic carbon and pH of the soil; and
- (6) Unsaturated zone monitoring information obtained under § 267.43.

(b) A land treatment facility must be maintained in a manner that complies with § 267.10 of this part during the post-closure period. The post-closure plan under § 264.118 of this chapter must specify the procedures that will be used to satisfy this paragraph. Proper maintenance of a land treat-

ment facility during the post-closure period must reflect a consideration of:

(1) The type and amount of waste applied to the facility;

(2) The mobility and expected rate of migration of the waste;

(3) Site location, topography and surrounding land use;

(4) Climatic conditions in the area, including the amount, frequency and pH of precipitation;

(5) Geologic and soil profiles and surface and subsurface hydrology of the site, including cation exchange capacity, total organic carbon and pH of the soil;

(6) Unsaturated zone monitoring information obtained under § 267.43; and

(7) The maintenance of any ground-water monitoring system at the facility.

§ 267.45 Treatment of waste.

The Regional Administrator may waive any of the requirements in § 267.21, § 267.22 or § 267.23 of this subpart where necessary to achieve treatment of hazardous waste in a land treatment facility, provided that the waiver does not result in non-compliance with § 267.10.

§ 267.46 Additional requirements.

The Regional Administrator may place additional requirements on owners or operators of new land treatment facilities, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

Subpart F—Ground-Water Monitoring

§ 267.50 Applicability.

Each new hazardous waste landfill, surface impoundment, or land treatment facility must have a ground-water monitoring program, which includes a ground-water monitoring system, procedures for sampling, analysis and evaluation of ground-water data, and appropriate response procedures.

§ 267.51 Ground-water monitoring system.

The ground-water system required by this subpart must be capable of de-

termining the facility's impact on ground-water in the uppermost aquifer so as to assure compliance with § 267.10 of this part. The design of the ground-water monitoring system must reflect a consideration of:

(a) The placement and depth of monitoring wells that is necessary to obtain a representative sample of constituents in the uppermost aquifer, including those present in the ground-water upgradient from the facility;

(b) Measures such as casing which maintain the integrity of the monitoring well bore hole; and

(c) Measures which prevent contamination of ground-water samples.

§ 267.52 Ground-water monitoring procedures.

(a) The ground-water monitoring procedures required by this subpart must be capable of assuring compliance with § 267.10 of this part. The procedures must reflect a consideration of:

- (1) Sample collection procedures;
- (2) Sample preservation and shipment procedures;
- (3) Analytical methods;
- (4) Chain of custody control; and
- (5) Evaluation procedures, including methods for determining the extent and rate of migration of waste constituents.

(b) The ground-water monitoring procedures required by this subpart must include appropriate procedures for when the ground-water monitoring program indicates that the facility is not in compliance with § 267.10 of this part. Such response procedures must be contained in the contingency plan required by Subpart D of Part 264.

§ 267.53 Additional requirements.

The Regional Administrator may place additional ground-water monitoring requirements on owners or operators of facilities subject to this Part, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

Subpart G—Underground Injection

§ 267.60 Applicability.

The regulations in this Subpart apply to owners and operators of new

facilities that dispose of hazard waste in underground injection wells which are classified as Class I under § 122.32(a) of this chapter.

§ 267.61 General design requirements.

An injection well must be designed to comply with § 267.10 of this part. The facility design must include measures (e.g. casing, tubing and packer set) to prevent the escape of injected fluids to the area above the zone of injection.

§ 267.62 General operating requirements.

An injection well must be operated in a manner that will comply with § 267.10 of this part. The methods for operating the injection well must reflect a consideration of:

(a) The volume and physical and chemical characteristics of the waste injected in the well;

(b) The injection pressure; and

(c) Monitoring measures to assure that the mechanical integrity of the well is maintained.

§ 267.63 Closure.

An injection well must be plugged and sealed at closure to prevent the escape of injected fluids to the area above the zone of injection.

§ 267.64 Additional requirements.

The Regional Administrator may place additional requirements on owners and operators of new injection wells, besides those otherwise required by this subpart, where necessary to comply with § 267.10 of this part.

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

Subpart A—General Information

Sec.

270.1 Purpose and scope of these regulations.

270.2 Definitions.

270.3 Considerations under Federal law.

270.4 Effect of a permit.

270.5 Noncompliance and program reporting by the Director.

270.6 References.

270.7—270.9 [Reserved]

Subpart B—Permit Application

- Sec.
- 270.10 General application requirements.
 - 270.11 Signatories to permit applications and reports.
 - 270.12 Confidentiality of information.
 - 270.13 Contents of Part A of the permit application.
 - 270.14 Contents of Part B: General requirements.
 - 270.15 Specific Part B information requirements for containers.
 - 270.16 Specific Part B information requirements for tanks.
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 - 270.18 Specific Part B information requirements for waste piles.
 - 270.19 Specific Part B information requirements for incinerators.
 - 270.20 Specific Part B information requirements for land treatment facilities.
 - 270.21 Specific Part B information requirements for landfills.
 - 270.22—270.29 [Reserved]

Subpart C—Permit Conditions

- 270.30 Conditions applicable to all permits.
- 270.31 Requirements for recording and reporting of monitoring results.
- 270.32 Establishing permit conditions.
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Subpart D—Changes to Permits

- 270.40 Transfer of permits.
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- 270.60 Permits by rule.
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- 270.62 Hazardous waste incinerator permits.
- 270.63 Permits for land treatment demonstrations using field test or laboratory analyses.
- 270.64 Interim permits for UIC wells.
- 270.65—270.69 [Reserved]

Subpart G—Interim Status

- 270.70 Qualifying for Interim status.

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- 270.71 Operation during interim status.
- 270.72 Changes during interim status.
- 270.73 Termination of interim status.
- 270.74—270.79 [Reserved]

AUTHORITY: Secs. 1006, 2002(a), 3005, 3007 and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA) (42 U.S.C. 6901, 6912(a), 6925, 6927 and 6974), unless otherwise noted.

EFFECTIVE DATE NOTE: At 49 FR 17718, Apr. 24, 1984, the authority for Part 270 was published as set forth above, effective October 24, 1984. For the convenience of the user, the superseded authority is set forth below.

AUTHORITY: Secs. 1006, 2002, 3005, 3007 and 7004, Solid Waste Disposal Act, as amended by the Resource Conservation Act of 1976, as amended (RCRA) (42 U.S.C. 6905, 6912, 6925, 6927 and 6974), unless otherwise noted.

SOURCE: 48 FR 14228, Apr. 1, 1983, unless otherwise noted.

Subpart A—General Information

§ 270.1 Purpose and scope of these regulations.

(a) *Coverage.* (1) These permit regulations establish provisions for the Hazardous Waste Permit Program under Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA), (Pub. L. 94-580, as amended by Pub. L. 95-609 and by Pub. L. 96-482; 42 U.S.C. 6091 et seq.). They apply to EPA and to approved States to the extent provided in Part 271.

(2) The regulations in this part cover basic EPA permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. These regulations are part of a regulatory scheme implementing RCRA set forth in different parts of the Code of Federal Regulations. The following chart indicates where the regulations implementing RCRA appear in the Code of Federal Regulations.

Sections of RCRA	Coverage	Final regulation
Subtitle C	Overview and definitions	40 CFR Part 260
3001	Identification and listing of hazardous waste	40 CFR Part 261
3002	Generators of hazardous waste	40 CFR Part 262
3003	Transporters of hazardous waste	40 CFR Part 263
3004	Standards for HWM facilities.	40 CFR Parts 264, 265, 266, and 267
3005	Permit requirements for HWM facilities.	40 CFR Parts 270 and 124
3006	Guidelines for State programs.	40 CFR Part 271
3010	Preliminary notification of HWM activity.	(public notice) 45 FR 12746 Feb. 26, 1980

(3) *Technical regulations.* The RCRA permit program has separate additional Regulations that contain technical requirements. These separate regulations are used by permit issuing authorities to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR Parts 264, 266, and 267.

(b) *Overview of the RCRA Permit Program.* Not later than 90 days after the promulgation or revision of regulations in 40 CFR Part 261 (identifying and listing hazardous wastes) generators and transporters of hazardous waste, and owners or operators of hazardous waste treatment, storage, or disposal facilities may be required to file a notification of that activity under section 3010. Six months after the initial promulgation of the Part 261 regulations, treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited. A RCRA permit application consists of two parts, Part A (see § 270.13) and Part B (see § 270.14 and applicable sections in §§ 270.15 through 270.29). For "existing HWM facilities," the requirement to submit an application is satisfied by submitting only Part A of the permit application until the date the Director sets for submitting Part B of the application. (Part A consists of Forms 1 and 3 of the Consolidated Permit Application Forms.) Timely submission of both notification under section 3010 and Part A qualifies owners and operators of existing HWM facilities (who are required to

have a permit) for interim status under section 3005(e) of RCRA. Facility owners and operators with interim status are treated as having been issued a permit until EPA or a State with interim authorization for Phase II or final authorization under Part 271 makes a final determination on the permit application. Facility owners and operators with interim status must comply with interim status standards set forth at 40 CFR Part 265 or with the analogous provisions of a State program which has received interim or final authorization under Part 271. Facility owners and operators with interim status are not relieved from complying with other State requirements. For existing HWM facilities, the Director shall set a date, giving at least six months notice, for submission of Part B of the application. There is no form for Part B of the application; rather, Part B must be submitted in narrative form and contain the information set forth in the applicable sections of §§ 270.14 through 270.29. Owners or operators of new HWM facilities must submit Part A and Part B of the permit application at least 180 days before physical construction is expected to commence.

(c) *Scope of the RCRA Permit Requirement.* RCRA requires a permit for the "treatment," "storage," or "disposal" of any "hazardous waste" as identified or listed in 40 CFR Part 261. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in § 270.2. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and, for any unit which closes after January 26, 1983, during any post-closure care period required under § 264.117 and during any compliance period specified under § 264.96, including any extension of the compliance period under § 264.96(c).

(1) *Specific inclusions.* Owners and operators of certain facilities require RCRA permits as well as permits under other programs for certain aspects of the facility operation. RCRA permits are required for:

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste, (See § 270.64). However, the owner and operator with a UIC permit in a State with an approved or promulgated UIC program, will be deemed to have a RCRA permit for the injection well itself if they comply with the requirements of § 270.60(b) (permit-by-rule for injection wells).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste will be deemed to have a RCRA permit for that waste if they comply with the requirements of § 270.60(c) (permit-by-rule for POTWs).

(iii) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities associated with an ocean disposal operation. However, the owner and operator will be deemed to have a RCRA permit for ocean disposal if they comply with the requirements of § 270.60(a) (permit-by-rule for ocean disposal barges and vessels).

(2) *Specific exclusions.* The following persons are among those who are not required to obtain a RCRA permit:

(i) Generators who accumulate hazardous waste on site for less than 90 days as provided in 40 CFR 262.34.

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in 40 CFR 262.51.

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulations under this part by 40 CFR 261.4 or 261.5 (small generator exemption).

(iv) Owners or operators of totally enclosed treatment facilities as defined in 40 CFR 260.10.

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in 40 CFR 260.10.

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of 40

CFR 262.30 at a transfer facility for a period of ten days or less.

(vii) Persons adding absorbent material to waste in a container (as defined in § 260.10 of this chapter) and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §§ 264.17(b), 264.171, and 264.172 of this chapter are complied with.

(3) *Further exclusions.* (i) A person is not required to obtain an RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities.

(4) *Permits for less than an entire facility.* EPA may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§ 270.2 Definitions.

The following definitions apply to Parts 270, 271 and 124. Terms not defined in this section have the meaning given by RCRA.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in ap-

proved States, including any approved modifications or revisions. Application also includes the information required by the Director under §§ 270.14—270.29 (contents of Part B of the RCRA application).

Approved program or approved State means a State which has been approved or authorized by EPA under Part 271.

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Closure means the act of securing a Hazardous Waste Management facility pursuant to the requirements of 40 CFR Part 264.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 92-217 and Pub. L. 95-576; 33 U.S.C. 1251 *et seq.*

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no approved State program, and there is an EPA administered program, Director means the Regional Administrator. When there is an approved State program, Director normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. In such cases, the term Director means the Regional Administrator and not the State Director.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water.

Disposal facility means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure.

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or

deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5 is not a "draft permit." A proposed permit is not a draft permit.

Elementary neutralization unit means a device which:

(a) Is used for neutralizing wastes which are hazardous wastes only because they exhibit the corrosivity characteristic defined in § 261.22 of this chapter, or are listed in Subpart D of Part 261 of this chapter only for this reason; and

(b) Meets the definition of tank, container, transport vehicle, or vessel in § 260.10 of this chapter.

Emergency permit means a RCRA permit issued in accordance with § 270.61.

Environmental Protection Agency (EPA) means the United States Environmental Protection Agency.

EPA means the United States Environmental Protection Agency.

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. 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)(1) A continuous on-site, physical construction program has begun; or

(2) The owner or operator has entered into contractual obligations which cannot be cancelled or modified without substantial loss—for physical construction of the facility to be completed within a reasonable time.

Facility or activity means any HWM facility or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA program.

Federal, State and local approvals or permits necessary to begin physical construction means permits and approvals required under Federal, State

or local hazardous waste control statutes, regulations or ordinances.

Final authorization means approval by EPA of a State program which has met the requirements of section 3006(b) of RCRA and the applicable requirements of Part 271, Subpart A.

Generator means any person, by site location, whose act, or process produces "hazardous waste" identified or listed in 40 CFR Part 261.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in 40 CFR 261.3.

Hazardous Waste Management facility (HWM facility) means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them).

HWM facility means Hazardous Waste Management facility.

Injection well means a well into which fluids are being injected.

In operation means a facility which is treating, storing, or disposing of hazardous waste.

Interim authorization means approval by EPA of a State hazardous waste program which has met the requirements of section 3006(c) of RCRA and applicable requirements of Part 271, Subpart B.

Major facility means any facility or activity classified as such by the Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director.

Manifest means the shipping document originated and signed by the generator which contains the information required by Subpart B of 40 CFR Part 262.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318,

and 405 of the CWA. The term includes an approved program.

NPDES means National Pollutant Discharge Elimination System.

New HWM facility means a Hazardous Waste Management facility which began operation or for which construction commenced after November 19, 1980.

Off-site means any site which is not on-site.

On-site means on the same or geographically contiguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right(s)-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

Owner or operator means the owner or operator of any facility or activity subject to regulation under RCRA.

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of this part and Parts 271 and 124. Permit includes permit by rule (§ 270.60), and emergency permit (§ 270.61). Permit does not include RCRA interim status (Subpart G of this part), or any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Permit-by-rule means a provision of these regulations stating that a facility or activity is deemed to have a RCRA permit if it meets the requirements of the provision.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Phase I means that phase of the Federal hazardous waste management program commencing on the effective date of the last of the following to be initially promulgated: 40 CFR Parts 260, 261, 262, 263, 265, 270 and 271. Promulgation of Phase I refers to promulgation of the regulations necessary for Phase I to begin.

Phase II means that phase of Federal hazardous waste management program commencing on the effective date of the first Subpart of 40 CFR Part 264, Subparts F through R to be initially promulgated. Promulgation of Phase II refers to promulgation of the regulations necessary for Phase II to begin.

Physical construction means excavation, movement of earth, erection of forms or structures, or similar activity to prepare an HWM facility to accept hazardous waste.

POTW means publicly owned treatment works.

Publicly owned treatment works (POTW) means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C. 6901 *et seq.*)

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the Act and regulations.

SDWA means the Safe Drinking Water Act (Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 3001 *et seq.*).

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.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and

the Commonwealth of the Northern Mariana Islands.

State Director means the chief administrative officer of any State agency operating an approved program, or the delegated representative of the State Director. If responsibility is divided among two or more State agencies, State Director means the chief administrative officer of the State agency authorized to perform the particular procedure or function to which reference is made.

State/EPA Agreement means an agreement between the Regional Administrator and the State which coordinates EPA and State activities, responsibilities and programs.

Storage means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

Transfer facility means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

Transporter means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

UIC means the Underground Injection Control Program under Part C of the Safe Drinking Water Act, including an approved program.

Underground injection means a well injection.

Underground source of drinking water (USDW) means an aquifer or its portion:

(a)(1) Which supplies any public water system; or

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(2) Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/l total dissolved solids; and

(b) Which is not an exempted aquifer.

USDW means underground source of drinking water.

Wastewater treatment unit means a device which:

(a) Is part of a wastewater treatment facility which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act; and

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in § 261.3 of this chapter, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter; and

(c) Meets the definition of tank in § 260.10 of this chapter.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§ 270.3 Considerations under Federal law.

The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed.

(a) *The Wild and Scenic Rivers Act*, 16 U.S.C. 1273 *et seq.* Section 7 of the Act prohibits the Regional Administrator from assisting by license or otherwise the construction of any water resources project that would have a direct, adverse effect on the values for which a national wild and scenic river was established.

(b) *The National Historic Preservation Act of 1966*, 16 U.S.C. 470 *et seq.* Section 106 of the Act and implementing regulations (36 CFR Part 800) require the Regional Administrator, before issuing a license, to adopt measures when feasible to mitigate poten-

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tial adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

(c) *The Endangered Species Act*, 16 U.S.C. 1531 *et seq.* Section 7 of the Act and implementing regulations (50 CFR Part 402) require the Regional Administrator to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

(d) *The Coastal Zone Management Act*, 16 U.S.C. 1451 *et seq.* Section 307(c) of the Act and implementing regulations (15 CFR Part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's non-concurrence).

(e) *The Fish and Wildlife Coordination Act*, 16 U.S.C. 661 *et seq.* requires that the Regional Administrator, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

(f) *Executive orders*. [Reserved]

(Clean Water Act (33 U.S.C. 1251 *et seq.*), Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), Clean Air Act (42 U.S.C. 7401 *et seq.*), Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*))

[48 FR 14228, Apr 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§ 270.4 Effect of a permit.

(a) Compliance with a RCRA permit during its term constitutes compli-

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ance, for purposes of enforcement, with Subtitle C of RCRA. However a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§ 270.41 and 270.43.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

§ 270.5 Noncompliance and program reporting by the Director.

The Director shall prepare quarterly and annual reports as detailed below. When the State is the permit-issuing authority, the State Director shall submit any reports required under this section to the Regional Administrator. When EPA is the permit-issuing authority, the Regional Administrator shall submit any report required under this section to EPA Headquarters. For purposes of this section only, RCRA permittees shall include RCRA interim status facilities, when appropriate.

(a) *Quarterly reports*. The Director shall submit quarterly narrative reports for major facilities as follows:

(1) *Format*. The report shall use the following format:

(i) Information on noncompliance for each facility;

(ii) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first;

(iii) For each entry on the list, include the following information in the following order:

(A) Name, location, and permit number of the noncomplying permittee.

(B) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.

(C) The date(s) and a brief description of the action(s) taken by the Director to ensure compliance.

(D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.

(E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) *Instances of noncompliance to be reported*. Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

(i) *Failure to complete construction elements*. When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required element of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) *Modifications to schedules of compliance*. When a schedule of compliance in the permit has been modified under § 270.41 or § 270.42 because of the permittee's noncompliance.

(iii) *Failure to complete or provide compliance schedule or monitoring reports*. When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) *Deficient reports*. When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.

(v) *Noncompliance with other permit requirements*. Noncompliance

shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of non-compliance was due under the permit; or

(B) When the Director determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or

(C) When the Director determines significant permit non-compliance or other significant event has occurred such as a fire or explosion or migration of fluids into a USDW.

(vi) *All other.* Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) *Annual reports.*

(1) *Annual noncompliance report.* Statistical reports shall be submitted by the Director on nonmajor RCRA permittees indicating the total number reviewed, the number of noncomplying nonmajor permittees, the number of enforcement actions, and number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) In addition to the annual non-compliance report, the Director shall prepare a "program report" which contains information (in a manner and form prescribed by the Administrator) on generators and transporters and the permit status of regulated facilities. The Director shall also include, on a biennial basis, summary information on the quantities and types of hazardous wastes generated, transported, treated, stored and disposed during the preceding odd-numbered year. This summary information shall be reported in a manner and form pre-

scribed by the Administrator and shall be reported according to EPA characteristics and lists of hazardous wastes at 40 CFR Part 261.

(c) *Schedule.*

(1) For all quarterly reports. On the last working day of May, August, November, and February, the State Director shall submit to the Regional Administrator information concerning noncompliance with RCRA permit requirements by major facilities in the State in accordance with the following schedule. The Regional Administrator shall prepare and submit information for EPA-issued permits to EPA Headquarters in accordance with the same schedule.

QUARTERS COVERED BY REPORTS ON NONCOMPLIANCE BY MAJOR DISCHARGERS

[Date for completion of reports]

January, February, and March	May 31
April, May, and June	August 31
July, August, and September	November 30
October, November, and December	February 28

* Reports must be made available to the public for inspection and copying on this date.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§ 270.6 References.

(a) When used in Part 270 of this chapter, the following publications are incorporated by reference:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (First Edition, 1980, as updated by Revisions A (August, 1980), B (July, 1981), and C (February, 1982) or (Second Edition, 1982). The first edition of SW-846 is no longer in print. Revisions A and B are available from EPA, Office of Solid Waste, (WH-565-B), 401 M Street, SW., Washington, D.C. 20460. Revision C is available from NTIS, 5285 Port Royal Road, Springfield, Virginia 22161. The second edition of SW-846 includes material from the first edition and Revisions A, B, and C in a reorganized format. It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238, on a subscription basis, and

future updates will automatically be mailed to the subscriber.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, N.W., Washington, D.C. 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the Federal Register.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§§ 270.7—270.9 [Reserved]

Subpart B—Permit Application

§ 270.10 General application requirements.

(a) *Permit application.* Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the Director as described in this section and §§ 270.70 through 270.73. Persons currently authorized with interim status shall apply for permits when required by the Director. Persons covered by RCRA permits by rule (§ 270.60), need not apply. Procedures for applications, issuance and administration of emergency permits are found exclusively in § 270.61.

(b) *Who applies?* When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner must also sign the permit application.

(c) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility. For EPA-Administered programs, an application which is reviewed under § 124.3 is complete when

the Director receives information listed in a notice of deficiency.

(d) *Information requirements.* All applicants for RCRA permits shall provide information set forth in § 270.13 and applicable sections in §§ 270.14 through 270.29 to the Director, using the application form provided by the Director.

(e) *Existing HWM facilities.* (1) Owners and operators of existing hazardous waste management facilities must submit Part A of their permit application to the Regional Administrator no later than (i) six months after the date of publication of regulations which first require them to comply with the standards set forth in 40 CFR Parts 265 or 266, or (ii) thirty days after the date they first become subject to the standards set forth in 40 CFR Parts 265 or 266, whichever first occurs.

[NOTE: For facilities which must comply with Part 265 because they handle a waste listed in EPA's May 19, 1980, Part 261 regulations (45 FR 33006 *et seq.*), the deadline for submitting an application is November 19, 1980. Where other existing facilities must begin in complying with Parts 265 or 266 at a later date because of revisions to Parts 260, 261, 265, or 266, the Administrator will specify in the preamble to those revisions when those facilities must submit a permit application.]

(2) The Administrator may by publication in the FEDERAL REGISTER extend the date by which owners and operators of specified classes of existing hazardous waste management facilities must submit Part A of their permit application if he finds that (i) there has been substantial confusion as to whether the owners and operators of such facilities were required to file a permit application and (ii) such confusion is attributed to ambiguities in EPA's Parts 260, 261, 265, or 266 regulations.

(3) The Administrator may by compliance order issued under Section 3008 of RCRA extend the date by which the owner and operator of an existing hazardous waste management facility must submit Part A of their permit application.

(4) At any time after promulgation of Phase II the owner and operator of an existing HWM facility may be re-

quired to submit Part B of their permit application. The State Director may require submission of Part B (or equivalent completion of the State RCRA application process) if the State in which the facility is located has received interim authorization for Phase II or final authorization; if not, the Regional Administrator may require submission of Part B. Any owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing HWM facility may voluntarily submit Part B of the application at any time.

(5) Failure to furnish a requested part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status under Part 124.

(f) *New HWM facilities.* (1) Except as provided in paragraph (f)(3) of this section, no person shall begin physical construction of a new HWM facility without having submitted Part A and Part B of the permit application and having received a finally effective RCRA permit.

(2) An application for a permit for a new HWM facility (including both Part A and Part B) may be filed any time after promulgation of those standards in Part 264, Subpart I *et seq.* applicable to such facility. The application shall be filed with the Regional Administrator if at the time of application the State in which the new HWM facility is proposed to be located has not received Phase II interim authorization for permitting such facility or final authorization; otherwise it shall be filed with the State Director. Except as provided in paragraph (f)(3) of this section, all applications must be submitted at least 180 days before physical construction is expected to commence.

(3) After November 19, 1980, but prior to the effective date of those standards in Part 264, Subpart I *et seq.*, which are applicable to his facility, a person may begin physical construction of a new HWM facility, except for landfills, injection wells, land treatment facilities or surface impoundments (as defined in 40 CFR 260.10), without having received a fi-

nally effective RCRA permit, if prior to beginning physical construction, such person has:

(i) Obtained the Federal, State and local approvals or permits necessary to begin physical construction;

(ii) Submitted Part A of the permit application; and

(iii) Made a commitment to complete physical construction of the facility within a reasonable time. Such persons may continue physical construction of the HWM facility after the effective date of the permitting standards in Part 264, Subpart I *et seq.*, applicable to his facility if he submits Part B of the permit application on or before the effective date of such standards (or on some later date specified by the Administrator). Such person must not operate the HWM facility without having received a finally effective RCRA permit.

(g) *Updating permit applications.*

(1) If any owner or operator of a HWM facility has filed Part A of a permit application and has not yet filed Part B, the owner or operator shall file an amended Part A application:

(i) With the Regional Administrator, if the facility is located in a State which has not obtained interim authorization for phase II or final authorization, within six months after the promulgation of revised regulations under Part 261 listing or identifying additional hazardous wastes, if the facility is treating, storing, or disposing of any of those newly listed or identified wastes.

(ii) With the State Director, if the facility is located in a State which has obtained Phase II interim authorization or final authorization, no later than the effective date of regulatory provisions listing or designating wastes as hazardous in that State in addition to those listed or designated under the previously approved State program, if the facility is treating, storing, or disposing of any of those newly listed or designated wastes; or

(iii) As necessary to comply with provisions of § 270.72 for changes during interim status or with the analogous provisions of a State program approved for final authorization or interim authorization for Phase II. Re-

vised Part A applications necessary to comply with the provisions of § 270.72 shall be filed with the Regional Administrator if the State in which the facility in question is located does not have Phase II interim authorization or final authorization; otherwise it shall be filed with the State Director (if the State has an analogous provision).

(2) The owner or operator of a facility who fails to comply with the updating requirements of paragraph (g)(1) of this section does not receive interim status as to the wastes not covered by duly filed Part A applications.

(h) *Reapplications.* Any HWM facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(i) *Recordkeeping.* Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under §§ 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.11 Signatories to permit applications and reports.

(a) *Applications.* All permit applications shall be signed as follows:

(1) *For a corporation:* by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decisionmaking functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in § 270.11(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under § 270.11(a)(1)(ii) rather than to specific individuals.

(2) *For a partnership or sole proprietorship:* by a general partner or the proprietor, respectively; or

(3) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) *Reports.* All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

(c) *Changes to authorization.* If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be

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submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) *Certification.* Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

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.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)
[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§ 270.12 Confidentiality of information.

(a) In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

(b) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

§ 270.13 Contents of Part A of the permit application.

Part A of the RCRA application shall include the following information:

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(a) The activities conducted by the applicant which require it to obtain a permit under RCRA.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities, (1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and (2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under 40 CFR Part 261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

(1) Hazardous Waste Management program under RCRA.

(2) UIC program under the SWDA.

(3) NPDES program under the CWA.

(4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(5) Nonattainment program under the Clean Air Act.

(6) National Emission Standards for Hazardous Pollutants (NESHAPS)

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preconstruction approval under the Clean Air Act.

(7) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(8) Dredge or fill permits under section 404 of the CWA.

(9) Other relevant environmental permits, including State permits.

(1) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary.

(m) A brief description of the nature of the business.

§ 270.14 Contents of Part B: General requirements.

(a) Part B of the permit application consists of the general information requirements of this section, and the specific information requirements in §§ 270.14 through 270.29 applicable to the facility. The Part B information requirements presented in §§ 270.14 through 270.29 reflect the standards promulgated in 40 CFR Part 264. These information requirements are necessary in order for EPA to determine compliance with the Part 264 standards. If owners and operators of HWM facilities can demonstrate that the information prescribed in Part B can not be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the Director and signed in accordance with requirements in § 270.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a registered professional engineer.

(b) General information requirements. The following information is

required for all HWM facilities, except as § 264.1 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous waste to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Part 264.

(3) A copy of the waste analysis plan required by § 264.13(b) and, if applicable § 264.13(c).

(4) A description of the security procedures and equipment required by § 264.14, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(5) A copy of the general inspection schedule required by § 264.15(b); include where applicable, as part of the inspection schedule, specific requirements in §§ 264.174, 264.194, 264.226, 264.254, 264.273, and 264.303.

(6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Part 264, Subpart C.

(7) A copy of the contingency plan required by Part 264, Subpart D. Note: Include, where applicable, as part of the contingency plan, specific requirements in §§ 264.227 and 264.255.

(8) A description of procedures, structures, or equipment used at the facility to:

(i) Prevent hazards in unloading operations (for example, ramps, special forklifts);

(ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages; and

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing).

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with § 264.17 including documentation demonstrating compliance with § 264.17(c).

(10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard [§ 264.18(a)] the owner or operator of a new facility must identify the political jurisdiction (e.g., county, township, or election district) in which the facility is proposed to be located.

[Comment: If the county or election district is not listed in Appendix VI of Part 264, no further information is required to demonstrate compliance with § 264.18(a).]

(ii) If the facility is proposed to be located in an area listed in Appendix VI of Part 264, the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

(1) Published geologic studies,

(2) Aerial reconnaissance of the area within a five-mile radius from the facility,

(3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

(4) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive

geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found.

[Comment: The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

[Comment: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location,

the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(C) If applicable, and in lieu of paragraphs (b)(1)(iv) (A) and (B) of this section, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(1) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(2) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Parts 270, 271, 124, and 264 through 266 of this chapter.

(3) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(4) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with § 264.18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with § 264.16. A brief description of how training will be designed to meet actual job tasks in

accordance with requirements in § 264.16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by §§ 264.112 and 264.118. Include, where applicable, as part of the plans, specific requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351.

(14) For existing facilities, documentation that a notice has been placed in the deed or appropriate alternate instrument as required by § 264.120.

(15) The most recent closure cost estimate for the facility prepared in accordance with § 264.142 plus a copy of the financial assurance mechanism adopted in compliance with § 264.143.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with § 264.144 plus a copy of the financial assurance mechanism adopted in compliance with § 264.145.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of § 264.147. For a new facility, documentation showing the amount of insurance meeting the specification of § 264.147(a) and, if applicable, § 264.147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in § 264.147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with § 264.149 or § 264.150.

(19) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas

should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

- (i) Map scale and date.
- (ii) 100-year floodplain area.
- (iii) Surface waters including intermittent streams.
- (iv) Surrounding land uses (residential, commercial, agricultural, recreational).
- (v) A wind rose (i.e., prevailing wind-speed and direction).
- (vi) Orientation of the map (north arrow).
- (vii) Legal boundaries of the HWM facility site.
- (viii) Access control (fences, gates).
- (ix) Injection and withdrawal wells both on-site and off-site.
- (x) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.)
- (xi) Barriers for drainage or flood control.
- (xii) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas).

[NOTE: For large HWM facilities the Agency will allow the use of other scales on a case-by-case basis.]

(20) Applicants may be required to submit such information as may be necessary to enable the Regional Administrator to carry out his duties under other Federal laws as required in § 270.3 of this part.

(c) *Additional information requirements.* The following additional information regarding protection of ground water is required from owners or operators of hazardous waste surface impoundments, piles, land treatment units, and landfills except as otherwise provided in § 264.90(b):

(1) A summary of the ground-water monitoring data obtained during the interim status period under §§ 265.90-265.94, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow

direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area).

(3) On the topographic map required under paragraph (b)(19) of this section, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under § 264.95, the proposed location of ground-water monitoring wells as required under § 264.97, and, to the extent possible, the information required in paragraph (c)(2) of this section.

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19) of this section;

(ii) Identifies the concentration of each Appendix VIII, of Part 261 of this chapter, constituent throughout the plume or identifies the maximum concentrations of each Appendix VIII constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of § 264.97.

(6) If the presence of hazardous constituents has not been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of § 264.98. This submission must address the following items specified under § 264.98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical compari-

son procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of § 264.99. The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of § 264.100, except as provided in § 264.98(h)(5). To demonstrate compliance with § 264.99, the owner or operator must address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with §§ 264.97 and 264.99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in § 264.94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of § 264.97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under § 264.94 Table 1, or if ground water monitoring conducted at the time of permit application under §§ 265.90 through 265.94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of § 264.100. However, an owner or operator is not

required to submit information to establish a corrective action program if he demonstrates to the Regional Administrator that alternate concentration limits will protect human health and the environment after considering the criteria listed in § 264.94(b). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of § 264.99 and paragraph (c)(6) of this section. To demonstrate compliance with § 264.100, the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in § 264.94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the ground-water monitoring program will demonstrate the adequacy of the corrective action.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.15 Specific Part B information requirements for containers.

Except as otherwise provided in § 264.170, owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with § 264.175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with § 264.175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with § 264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and § 264.177(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§ 264.177 (a) and (b), and 264.17 (b) and (c).

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.16 Specific Part B information requirements for tanks.

Except as otherwise provided in § 264.190, owners and operators of facilities that use tanks to store or treat hazardous waste must provide a description of design and operation procedures which demonstrate compliance with the requirements of §§ 264.191, 264.192, 264.198 and 264.199 including:

(a) References to design standards or other available information used (or to be used) in design and construction of the tank.

(b) A description of design specifications including identification of construction materials and lining materials (include pertinent characteristics such as corrosion or erosion resistance).

(c) Tank dimensions, capacity, and shell thickness.

(d) A diagram of piping, instrumentation, and process flow.

(e) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).

(f) Description of procedures for handling incompatible ignitable, or reactive wastes, including the use of buffer zones.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.17 Specific Part B information requirements for surface impoundments.

Except as otherwise provided in § 264.1, owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of § 264.221. This submission must address the following items as specified in § 264.221:

(1) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by § 264.221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Prevention of overtopping; and

(3) Structural integrity of dikes;

(c) If any exemption from Subpart F of Part 264 is sought, as provided by § 264.222(a), detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liners;

(d) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of § 264.226(a) and (b). This in-

formation should be included in the inspection plan submitted under § 270.14(b)(5);

(e) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under § 264.226(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(f) A description of the procedure to be used for removing a surface impoundment from service, as required under § 264.227(b) and (c). This information should be included in the contingency plan submitted under § 270.14(b)(7);

(g) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under § 264.228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13);

(h) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how § 264.229 will be complied with;

(i) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how § 264.230 will be complied with.

§ 270.18 Specific Part B information requirements for waste piles.

Except as otherwise provided in § 264.1, owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to § 264.251, and Subpart F of Part 264 as provided by § 264.250(c), an explanation of how the standards of § 264.250(c) will be complied with;

(c) Detailed plans and an engineering report describing how the pile is or

will be designed, constructed, operated and maintained to meet the requirements of § 264.251. This submission must address the following items as specified in § 264.251:

(1) The liner system (except for an existing portion of a pile). If an exemption from the requirement for a liner is sought, as provided by § 264.252(b), the owner or operator must submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) If an exemption from Subpart F of Part 264 is sought as provided by § 264.252 or § 264.253, submit detailed plans and an engineering report describing how the requirements of § 264.252(a) or § 264.253(a) will be complied with;

(e) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.254 (a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5). If an exemption is sought to Subpart F of Part 264 pursuant to § 264.253, describe in the inspection plan how the inspection requirements of § 264.253(a)(3) will be complied with;

(f) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(g) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of § 264.256 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how § 264.257 will be complied with;

(i) A description of how hazardous waste residues and contaminated ma-

materials will be removed from the waste pile at closure, as required under § 264.258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

§ 270.19 Specific Part B information requirements for incinerators.

Except as § 264.340 of this chapter provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of (a), (b), or (c) of this section.

(a) When seeking an exemption under § 264.340 (b) or (c) of this chapter (Ignitable, corrosive, or reactive wastes only):

(1) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of this chapter, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or

(2) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of this chapter, solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5) of this chapter, and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Part 261, Subpart C of this chapter; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in § 261.23(a) (1), (2), (3), (6), (7), or (8) of this chapter, and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with § 270.62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity (if applicable), or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII, of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test methods for the evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6 and referenced in 40 CFR Part 261, Appendix III), or their equivalent.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6).

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in § 264.343 of this chapter.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Description of auxiliary fuel system (type/feed).

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraph (c)(1) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in § 264.343 of this chapter,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement),

(6) The expected incinerator operation information to demonstrate compliance with §§ 264.343 and 264.345 of this chapter including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas.

(ii) Waste feed rate.

(iii) Combustion zone temperature.

(iv) Indication of combustion gas velocity.

(v) Expected stack gas volume, flow rate, and temperature.

(vi) Computed residence time for waste in the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Director finds necessary to achieve the purposes of this paragraph.

(8) Waste analysis data, including that submitted in paragraph (c)(1) of this section, sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(d) The Director shall approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under § 264.345 of this chapter) operating conditions that will ensure that the performance standards in § 264.343 of this chapter will be met by the incinerator.

§ 270.20 Specific Part B information requirements for land treatment facilities.

Except as otherwise provided in § 264.1, owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under § 264.272. The description must include the following information:

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

(2) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test (e.g., column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under § 264.271. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

- (1) The wastes to be land treated;
- (2) Design measures and operating practices necessary to maximize treatment in accordance with § 264.273(a) including:
 - (i) Waste application method and rate;
 - (ii) Measures to control soil pH;
 - (iii) Enhancement of microbial or chemical reactions;
 - (iv) Control of moisture content;
 - (3) Provisions for unsaturated zone monitoring, including:
 - (i) Sampling equipment, procedures, and frequency;
 - (ii) Procedures for selecting sampling locations;
 - (iii) Analytical procedures;
 - (iv) Chain of custody control;
 - (v) Procedures for establishing background values;
 - (vi) Statistical methods for interpreting results;
 - (vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in § 264.278(a);
 - (4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to § 264.13;
 - (5) The proposed dimensions of the treatment zone;
 - (c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of § 264.273. This submission must address the following items:
 - (1) Control of run-on;
 - (2) Collection and control of run-off;
 - (3) Minimization of run-off of hazardous constituents from the treatment zone;
 - (4) Management of collection and holding facilities associated with run-on and run-off control systems;
 - (5) Periodic inspection of the unit. This information should be included

in the inspection plan submitted under § 270.14(b)(5);

- (6) Control of wind dispersal of particulate matter, if applicable;
 - (d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under § 264.276(a) will be conducted including:
 - (1) Characteristics of the food-chain crop for which the demonstration will be made.
 - (2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;
 - (3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;
 - (4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;
 - (e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of § 264.276(b) will be complied with;
 - (f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under § 264.280(a)(8) and § 264.280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under § 270.14(b)(13);
 - (g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of § 264.281 will be complied with;
 - (h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how § 264.282 will be complied with.
- [48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]
- § 270.21 Specific Part B information requirements for landfills.
- Except as otherwise provided in § 264.1, owners and operators of facilities that dispose of hazardous waste in

landfills must provide the following additional information:

- (a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;
- (b) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of § 264.301. This submission must address the following items as specified in § 264.301:
 - (1) The liner system and leachate collection and removal system (except for an existing portion of a landfill). If an exemption from the requirements for a liner and a leachate collection and removal system is sought as provided by § 264.301(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituent into the ground water or surface water at any future time;
 - (2) Control of run-on;
 - (3) Control of run-off;
 - (4) Management of collection and holding facilities associated with run-on and run-off control systems; and
 - (5) Control of wind dispersal of particulate matter, where applicable;
 - (c) If an exemption from Subpart F of Part 264 is sought, as provided by § 264.302(a), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double-liner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;
 - (d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of § 264.303 (a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5).
 - (e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with § 264.310(a), and a description of how each landfill will be maintained and monitored after closure in accord-

ance with § 264.310(b). This information should be included in the closure and post-closure plans submitted under § 270.14(b)(13).

- (f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of § 264.312 will be complied with;
- (g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how § 264.313 will be complied with;
- (h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled, an explanation of how the requirements of § 264.314 will be complied with;
- (i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of § 264.315 or § 264.316, as applicable, will be complied with.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§§ 270.22—270.29 [Reserved]

Subpart C—Permit Conditions

§ 270.30 Conditions applicable to all permits.

The following conditions apply to all RCRA permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

- (a) *Duty to comply.* The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. (Sec § 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- (b) *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee

must apply for and obtain a new permit.

(c) *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) *Permit actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) *Property rights.* The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) *Duty to provide information.* The permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon re-

quest, copies of records required to be kept by this permit.

(i) *Inspection and entry.* The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

(j) *Monitoring and records.* (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) *Signatory requirements.* All applications, reports, or information submitted to the Director shall be signed and certified (See § 270.11.)

(l) *Reporting requirements.* (1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility, until:

(i) The permittee has submitted to the Director by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in paragraph (l)(2)(i) of this section, the permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under RCRA. (See § 270.40)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) *Twenty-four hour reporting.* (i) The permittee shall report any non-compliance which may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the non-compliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five day written notice requirement in favor of a written report within fifteen days.

(7) *Manifest discrepancy report.* If a significant discrepancy in a manifest is

discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the Director. (See 40 CFR 264.72.)

(8) *Unmanifested waste report*: This report must be submitted to the Director within 15 days of receipt of unmanifested waste. (See 40 CFR § 264.76)

(9) *Biennial report*: A biennial report must be submitted covering facility activities during odd numbered calendar years. (See 40 CFR 264.75.)

(10) *Other noncompliance*. The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.

(11) *Other information*. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 48 FR 39622, Sept. 1, 1983]

§ 270.31 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Parts 264, 266 and 267. Reporting shall

be no less frequent than specified in the above regulations.

§ 270.32 Establishing permit conditions.

(a) In addition to conditions required in all permits (§ 270.30), the Director shall establish conditions, as required on a case-by-case basis, in permits under §§ 270.50 (duration of permits), 270.33(a) (schedules of compliance), 270.31 (monitoring), and for EPA issued permits only, 270.33(b) (alternate schedules of compliance) and 270.3 (considerations under Federal law).

(b) Each RCRA permit shall include permit conditions necessary to achieve compliance with the Act and regulations, including each of the applicable requirements specified in 40 CFR Parts 264, 266, and 267. In satisfying this provision, the Director may incorporate applicable requirements of 40 CFR Parts 264, 266, and 267 directly into the permit or establish other permit conditions that are based on these parts.

(c) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in § 124.86(c) for RCRA permits being processed under Subparts E or F of Part 124). Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 270.41.

(d) New or reissued permits, and to the extent allowed under § 270.41, modified or revoked and reissued permits, shall incorporate each of the ap-

licable requirements referenced in this section and in 40 CFR 270.31.

(e) *Incorporation*. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

§ 270.33 Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the Act and regulations.

(1) *Time for compliance*. Any schedules of compliance under this section shall require compliance as soon as possible.

(2) *Interim dates*. Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) *Reporting*. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) *Alternative schedules of compliance*. An RCRA permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

148 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983]

§§ 270.31—270.39 {Reserved}

Subpart D—Changes to Permit

§ 270.40 Transfer of permits.

Transfers by modification. A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 270.41(b)(2)), or a minor modification made (under § 270.42(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act.

§ 270.41 Major modification or revocation and reissuance of permits.

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 270.30)), receives a request for modification or revocation and reissuance under § 124.5, or conducts a review of the permit file) he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraphs (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See 40 CFR 124.5(c)(2). If cause does not exist under this section or 40 CFR 270.42, the Director shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in 40 CFR 270.42 for a minor modification, the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in Part 124 (or procedures of an approved State program) followed.

(a) *Causes for modification.* The following are causes for modification, but

not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) *Alterations.* There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) *Information.* The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(3) *New regulations.* The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

(i) For promulgation of amended standards or regulations, when:

(A) The permit condition requested to be modified was based on a promulgated Parts 260—266 regulation; and

(B) EPA has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based; and

(C) A permittee requests modification in accordance with § 124.5 within ninety (90) days after FEDERAL REGISTER notice of the action on which the request is based.

(ii) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations if the remand and stay concern that portion of the regulations on which the permit condition was based and a request is filed by the permittee in accordance with § 124.5 within ninety (90) days of judicial remand.

(4) *Compliance schedules.* The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or

no control and for which there is no reasonably available remedy.

(5) The Director may also modify a permit:

(i) When modification of a closure plan is required under § 264.112(b) or § 264.118(b).

(ii) After the Director receives the notification of expected closure under § 264.113, when the Director determines that extension of the 90 to 180 day periods under § 264.113, modification of the 30-year post-closure period under § 264.117(a), continuation of security requirements under § 264.117(b), or permission to disturb the integrity of the containment system under § 264.117(c) are unwarranted.

(iii) When the permittee has filed a request under § 264.147(c) for a variance to the level of financial responsibility or when the Director demonstrates under § 264.147(d) that an upward adjustment of the level of financial responsibility is required.

(iv) When the corrective action program specified in the permit under § 264.100 has not brought the regulated unit into compliance with the ground-water protection standard within a reasonable period of time.

(v) To include a detection monitoring program meeting the requirements of § 264.98, when the owner or operator has been conducting a compliance monitoring program under § 264.99 or a corrective action program under § 264.100 and compliance period ends before the end of the post-closure care period for the unit.

(vi) When a permit requires a compliance monitoring program under § 264.99, but monitoring data collected prior to permit issuance indicate that the facility is exceeding the ground-water protection standard.

(vii) To include conditions applicable to units at a facility that were not previously included in the facility's permit.

(viii) When a land treatment unit is not achieving complete treatment of hazardous constituents under its current permit conditions.

(b) *Causes for modification or revocation and reissuance.* The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under § 270.43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see § 270.30(1)(3)) of a proposed transfer of the permit.

(c) *Facility siting.* Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environmental exists which was unknown at the time of permit issuance.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983]

§ 270.42 Minor modifications of permits.

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with Part 124 draft permit and public notice as required in § 270.41. Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director;

(e) Change the lists of facility emergency coordinators or equipment in the permit's contingency plan;

(f) Change estimates of maximum inventory under § 264.112(a)(2);

(g) Change estimates of expected year of closure or schedules for final closure under § 264.112(a)(4);

(h) Approve periods longer than 90 days or 180 days under § 264.113 (a) and (b);

(i) Change the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided that the change is minor;

(j) Change the operating requirements set in the permit for conducting a trial burn, provided that the change is minor;

(k) Grant one extension of the time period for determining operational readiness following completion of construction, for up to 720 hours operating time for treatment of hazardous waste;

(l) Change the treatment program requirements for land treatment units under § 264.271 to improve treatment of hazardous constituents, provided that the change is minor;

(m) Change any conditions specified in the permit for land treatment units to reflect the results of field tests or laboratory analyses used in making a treatment demonstration in accordance with § 270.63, provided that the change is minor; and

(n) Allow a second treatment demonstration for land treatment to be conducted when the results of the first demonstration have not shown the conditions under which the waste or wastes can be treated completely as required by § 264.272(a), provided that the conditions for the second demonstration are substantially the same as the conditions for the first demonstration.

§ 270.43 Termination of permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(3) A determination that the permitted activity endangers human health

or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Director shall follow the applicable procedures in Part 124 or State procedures in terminating any permit under this section.

§§ 270.44—270.49 [Reserved]

Subpart E—Expiration and Continuation of Permits

§ 270.50 Duration of permits.

(a) RCRA permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in § 270.51, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

§ 270.51 Continuation of expiring permits.

(a) *EPA permits.* When EPA is the permit-issuing authority, the conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit (see § 124.15) if:

(1) The permittee has submitted a timely application under § 270.14 and the applicable sections in §§ 270.15—270.29 which is a complete (under § 270.10(c)) application for a new permit; and

(2) The Regional Administrator through no fault of the permittee, does not issue a new permit with an effective date under § 124.15 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) *Effect.* Permits continued under this section remain fully effective and enforceable.

(c) *Enforcement.* When the permittee is not in compliance with the conditions of the expiring or expired permit, the Regional Administrator may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under § 124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Part 124 with appropriate conditions; or

(4) Take other actions authorized by these regulations.

(d) *State continuation.* In a State with an hazardous waste program authorized under 40 CFR Part 271, if a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))
[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§§ 270.52—270.59 [Reserved]

Subpart F—Special Forms of Permits

§ 270.60 Permits by rule.

Notwithstanding any other provision of this part or Part 124, the following shall be deemed to have a RCRA permit if the conditions listed are met:

(a) *Ocean disposal barges or vessels.* The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(1) Has a permit for ocean dumping issued under 40 CFR Part 220 (Ocean Dumping, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. 1420 et seq.);

(2) Complies with the conditions of that permit; and

(3) Complies with the following hazardous waste regulations:

(i) 40 CFR 264.11, Identification number;

(ii) 40 CFR 264.71, Use of manifest system;

(iii) 40 CFR 264.72, Manifest discrepancies;

(iv) 40 CFR 264.73(a) and (b)(1), Operating record;

(v) 40 CFR 264.75, Biennial report; and

(vi) 40 CFR 264.76, Unmanifested waste report.

(b) *Injection wells.* The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) Has a permit for underground injection issued under Part 144 or 145; and

(2) Complies with the conditions of that permit and the requirements of § 144.14 (requirements for wells managing hazardous waste).

(c) *Publicly owned treatment works.* The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit;

(2) Complies with the conditions of that permit; and

(3) Complies with the following regulations:

(i) 40 CFR 264.11, Identification number;

(ii) 40 CFR 264.71, Use of manifest system;

(iii) 40 CFR 264.72, Manifest discrepancies;

(iv) 40 CFR 264.73(a) and (b)(1), Operating record;

(v) 40 CFR 264.75, Biennial report;

(vi) 40 CFR 264.76, Unmanifested waste report; and

(4) If the waste meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

§ 270.61 Emergency permits.

(a) Notwithstanding any other provision of this part or Part 124, in the event the Director finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit: (1) To a non-permitted

facility to allow treatment, storage, or disposal of hazardous waste or (2) to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Director at any time without process if he or she determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under § 124.11(b) including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted HWM facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and 40 CFR Parts 264 and 266.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983]

§ 270.62 Hazardous waste incinerator permits.

(a) For the purposes of determining operational readiness following completion of physical construction, the Director must establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Di-

rector may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to § 270.42 (Minor modifications of permits) of this chapter.

(1) Applicants must submit a statement, with part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of § 264.343 of this chapter during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in § 264.345 of this chapter.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of § 264.343 of this chapter based on his engineering judgment.

(b) For the purposes of determining feasibility of compliance with the performance standards of § 264.343 of this chapter and of determining adequate operating conditions under § 264.345 of this chapter, the Director must establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants must propose a trial burn plan, prepared under paragraph (b)(2) of this section with a Part B of the permit application.

(2) The trial burn plan must include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscosity (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this chapter which would reasonably

not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 270.6), or other equivalent.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," (incorporated by reference, see § 270.6), or their equivalent.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator (if available).

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system (type/feed).

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(5) of this section.

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant

parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(5) of this section.

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph.

(4) Based on the waste analysis data in the trial burn plan, the Director will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on his estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in Part 261, Subpart D, of this chapter, the hazardous waste organic constituent or constituents identified in Appendix VII of that part as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by § 264.343 of this chapter can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under § 264.345 of this chapter; and

(iv) The information sought in paragraphs (b)(5) (i) and (ii) of this section cannot reasonably be developed through other means.

(6) During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O₂) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in § 264.343(a) of this chapter.

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with § 264.343(b) of this chapter.

(vi) A computation of particulate emissions, in accordance with § 264.343(c) of this chapter.

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in § 264.343 of this chapter and to establish the operating conditions required by § 264.345 of this chapter as necessary to meet that performance standard.

(7) The applicant must submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in paragraph (b)(6). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(8) All data collected during any trial burn must be submitted to the

Director following the completion of the trial burn.

(9) All submissions required by this paragraph must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under § 270.11.

(10) Based on the results of the trial burn, the Director shall set the operating requirements in the final permit according to § 264.345 of this chapter. The permit modification shall proceed as a minor modification according to § 270.42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of § 264.345 of this chapter, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants must submit a statement, with Part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of § 264.343 of this chapter, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in § 264.345 of this chapter.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of § 264.343 of this chapter based on his engineering judgment.

(d) For the purposes of determining feasibility of compliance with the performance standards of § 264.343 of this chapter and of determining adequate operating conditions under § 264.345 of this chapter, the applicant for a permit to an existing hazardous waste

incinerator may prepare and submit a trial burn plan and perform a trial burn in accordance with paragraphs (b)(2) through (b)(9) of this section. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in paragraph (b)(6), with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Director to establish a later date for submission of the Part B application or the trial burn results. If the applicant submits a trial burn plan with Part B of the permit application, the trial burn must be conducted and the results submitted within a time period to be specified by the Director.

§ 270.63 Permits for land treatment demonstrations using field test or laboratory analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of § 264.272 of this chapter, the Director may issue a treatment demonstration permit. The permit must contain only those requirements necessary to meet the standards in § 264.272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Director may issue a two-phase facility permit if he finds that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Director finds that not enough information exists upon which he can establish permit conditions to attempt to provide for compliance with all of the requirements of Subpart M, he must issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Director finds that a phased permit may be issued, he will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration clean-up activities, and any other conditions which the Director finds may be necessary under § 264.272(c). The Director will include conditions in the second phase of the facility permit to attempt to meet all Subpart M requirements pertaining to unit design, construction, operation, and maintenance. The Director will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(1) The first phase of the permit will be effective as provided in § 124.15(b) of this chapter.

(2) The second phase of the permit will be effective as provided in paragraph (d) of this section.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the Director a certification, signed by a person authorized to sign a permit application or report under § 270.11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Director approves a later date.

(d) If the Director determines that the results of the field tests or laboratory analyses meet the requirements of § 264.272 of this chapter, he will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with Part 264, Subpart M, of this chapter, based upon the results

of the field tests or laboratory analyses.

(1) This permit modification may proceed as a minor modification under § 270.42, provided any such change is minor, or otherwise will proceed as a modification under § 270.41(a)(2).

(2) If no modifications of the second phase of the permit are necessary, or if only minor modifications are necessary and have been made, the Director will give notice of his final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in § 124.15(b).

(3) If modifications under § 270.41(a)(2) are necessary, the second phase of the permit will become effective only after those modifications have been made.

§ 270.64 Interim permits for UIC wells.

The Director may issue a permit under this part to any Class I UIC well (see § 144.6) injecting hazardous wastes within a State in which no UIC program has been approved or promulgated. Any such permit shall apply and insure compliance with all applicable requirements of 40 CFR Part 264, Subpart R (RCRA standards for wells), and shall be for a term not to exceed two years. No such permit shall be issued after approval or promulgation of a UIC program in the State. Any permit under this section shall contain a condition providing that it will terminate upon final action by the Director under a UIC program to issue or deny a UIC permit for the facility.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§§ 270.65—270.69 [Reserved]

Subpart G—Interim Status

§ 270.70 Qualifying for interim status.

(a) Any person who owns or operates an "existing HWM facility" shall have interim status and shall be treated as having been issued a permit to the extent he or she has:

(1) Complied with the requirements of Section 3010(a) of RCRA pertaining to notification of hazardous waste activity.

[Comment: Some existing facilities may not be required to file a notification under Section 3010(a) of RCRA. These facilities may qualify for interim status by meeting paragraph (a)(2) of this section.]

(2) Complied with the requirements of § 270.10 governing submission of Part A applications;

(b) Failure to qualify for interim status. If EPA has reason to believe upon examination of a Part A application that it fails to meet the requirements of § 270.13, it shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for EPA's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part A application. If, after such notification and opportunity for response, EPA determines that the application is deficient it may take appropriate enforcement action.

[48 FR 14228, Apr. 1, 1983, as amended at 49 FR 17718, Apr. 24, 1984]

EFFECTIVE DATE NOTE: At 49 FR 17718, Apr. 24, 1984, § 270.70(b) was revised, effective October 24, 1984. For the convenience of the user, the superseded text is set out below.

§ 270.70 Qualifying for interim status.

* * * * *

(b) When EPA determines on examination or reexamination of a Part A application that it fails to meet the standards of these regulations, it may notify the owner or operator that the application is deficient and that the owner or operator is therefore not entitled to interim status. The owner or operator will then be subject to EPA enforcement for operating without a permit.

§ 270.71 Operation during interim status.

(a) During the interim status period the facility shall not:

(1) Treat, store, or dispose of hazardous waste not specified in Part A of the permit application;

(2) Employ processes not specified in Part A of the permit application; or

(3) Exceed the design capacities specified in Part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at 40 CFR Part 265.

§ 270.72 Changes during interim status.

(a) New hazardous wastes not previously identified in Part A of the permit application may be treated, stored, or disposed of at a facility if the owner or operator submits a revised Part A permit application prior to such a change;

(b) Increases in the design capacity of processes used at a facility may be made if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Director approves the change because of a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities;

(c) Changes in the processes for the treatment, storage, or disposal of hazardous waste may be made at a facility or additional processes may be added if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Director approves the change because:

(1) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(2) It is necessary to comply with Federal regulations (including the interim status standards at 40 CFR Part 265) or State or local laws.

(d) Changes in the ownership or operational control of a facility may be made if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of 40 CFR Part 265, Subpart H (financial requirements), until the new owner or operator has demonstrated to the Director that it is complying with that subpart. All other in-

terim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with that Subpart, the Director shall notify the old owner or operator in writing that it no longer needs to comply with that part as of the date of demonstration.

(e) In no event shall changes be made to an HWM facility during interim status which amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable entirely new HWM facility.

§ 270.73 Termination of interim status.

Interim status terminates when:

(a) Final administrative disposition of a permit application is made; or

(b) Interim status is terminated as provided in § 270.10(e)(5).

§§ 270.74—270.79 [Reserved]

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

Subpart A—Requirements for Final Authorization

Sec.	
271.1	Purpose and scope.
271.2	Definitions.
271.3	Availability of final authorization.
271.4	Consistency.
271.5	Elements of a program submission.
271.6	Program description.
271.7	Attorney General's statement.
271.8	Memorandum of Agreement with the Regional Administrator.
271.9	Requirements for identification and listing of hazardous wastes.
271.10	Requirements of generators of hazardous wastes.
271.11	Requirements for transporters of hazardous wastes.
271.12	Requirements for hazardous waste management facilities.
271.13	Requirements with respect to permits and permit application.
271.14	Requirements for permitting.
271.15	Requirements for compliance evaluation programs.

date the notice of the Administrator's order is first published.

(3) *Disposition.* Leave to intervene may be granted only if the movant demonstrates that (i) his presence in the proceeding would not unduly prolong or otherwise prejudice that adjudication of the rights of the original parties; (ii) the movant will be adversely affected by a final order; and (iii) the interests of the movant are not being adequately represented by the original parties. The intervenor shall become a full party to the proceeding upon the granting of leave to intervene.

(4) *Amicus curiae.* Persons not parties to the proceeding who wish to file briefs may so move. The motion shall identify the interest of the applicant and shall state the reasons why the proposed amicus brief is desirable. If the motion is granted, the Presiding Officer or Administrator shall issue an order setting the time for filing such brief. An amicus curiae is eligible to participate in any briefing after his motion is granted, and shall be served with all briefs, reply briefs, motions, and orders relating to issues to be briefed.

(D) *Motions—(1) General.* All motions, except those made orally on the record during a hearing, shall (i) be in writing; (ii) state the grounds therefor with particularity; (iii) set forth the relief or order sought; and (iv) be accompanied by any affidavit, certificate, other evidence, or legal memorandum relied upon. Such motions shall be served as provided by (b)(4) of this section.

(2) *Response to motions.* A party's response to any written motion must be filed within ten (10) days after service of such motion, unless additional time is allowed for such response. The response shall be accompanied by any affidavit, certificate, other evidence, or legal memorandum relied upon. If no response is filed within the designated period, the parties may be deemed to have waived any objection to the granting of the motion. The Presiding Officer, Regional Administrator, or Administrator, as appropriate, may set a shorter time for response, or make such other orders concerning the dis-

position of motions as they deem appropriate.

(3) *Decision.* The Administrator shall rule on all motions filed or made after service of the recommended decision upon the parties. The Presiding Officer shall rule on all other motions. Oral argument on motions will be permitted where the Presiding Officer, Regional Administrator, or the Administrator considers it necessary or desirable.

(4) *Record of proceedings.* (i) The hearing shall be either stenographically reported verbatim or tape recorded, and thereupon transcribed by an official reporter designated by the Presiding Officer;

(ii) All orders issued by the Presiding Officer, transcripts of testimony, written statements of position, stipulations, exhibits, motions, briefs, and other written material of any kind submitted in the hearing shall be a part of the record and shall be available for inspection or copying in the Office of the Hearing Clerk, upon payment of costs. Inquiries may be made at the Office of the Administrative Law Judges, Hearing Clerk, 401 M Street, S.W., Washington, D.C. 20460;

(iii) Upon notice to all parties the Presiding Officer may authorize corrections to the transcript which involves matters of substance;

(iv) An original and two (2) copies of all written submissions to the hearing shall be filed with the Hearing Clerk;

(v) A copy of each submission shall be served by the person making the submission upon the Presiding Officer and each party of record. Service under this paragraph shall take place by mail or personal delivery;

(vi) Every submission shall be accompanied by an acknowledgement of service by the person served or proof of service in the form of a statement of the date, time, and manner of service and the names of the persons served, certified by the person who made service, and;

(vii) The Hearing Clerk shall maintain and furnish to any person upon request, a list containing the name, service address, and telephone number of all parties and their attorneys or duly authorized representatives.

(5) *Participation by a person not a party.* A person who is not a party may, in the discretion of the Presiding Officer, be permitted to make a limited appearance by making oral or written statement of his/her position on the issues within such limits and on such conditions as may be fixed by the Presiding Officer, but he/she may not otherwise participate in the proceeding.

(6) *Rights of parties.* (i) All parties to the proceeding may:

(A) Appear by counsel or other representative in all hearing and pre-hearing proceedings;

(B) Agree to stipulations of facts which shall be made a part of the record.

(7) *Recommended decision.* (i) Within 30 days after the filing of proposed findings and conclusions, and reply briefs, the Presiding Officer shall evaluate the record before him/her, the proposed findings and conclusions and any briefs filed by the parties and shall prepare a recommended decision, and shall certify the entire record, including the recommended decision, to the Administrator.

(ii) Copies of the recommended decision shall be served upon all parties.

(iii) Within 20 days after the certification and filing of the record and recommended decision, all parties may file with the Administrator exceptions to the recommended decision and a supporting brief.

(8) *Decision by Administrator.* (i) Within 60 days after the certification of the record and filing of the Presiding Officer's recommended decision, the Administrator shall review the record before him and issue his own decision.

(ii) If the Administrator concludes that the State has administered the program in conformity with the appropriate Act and regulations his decision shall constitute "final agency action" within the meaning of 5 U.S.C. 704.

(iii) If the Administrator concludes that the State has not administered the program in conformity with the appropriate Act and regulations he shall list the deficiencies in the program and provide the State a reasonable time, not to exceed 90 days, to take such appropriate corrective action as

the Administrator determines necessary.

(iv) Within the time prescribed by the Administrator the State shall take such appropriate corrective action as required by the Administrator and shall file with the Administrator and all parties a statement certified by the State Director that such appropriate corrective action has been taken.

(v) The Administrator may require a further showing in addition to the certified statement that corrective action has been taken.

(vi) If the State fails to take such appropriate corrective action and file a certified statement thereof within the time prescribed by the Administrator, the Administrator shall issue a supplementary order withdrawing approval of the State program. If the State takes such appropriate corrective action, the Administrator shall issue a supplementary order stating that approval of authority is not withdrawn.

(vii) The Administrator's supplementary order shall constitute final Agency action within the meaning of 5 U.S.C. 704.

(viii) Withdrawal of authorization under this section and the appropriate Act does not relieve any person from complying with the requirements of State law, nor does it affect the validity of actions by the State prior to withdrawal.

PART 124—PROCEDURES FOR DECISIONMAKING

Subpart A—General Program Requirements

Sec.

- 124.1 Purpose and scope.
- 124.2 Definitions.
- 124.3 Application for a permit.
- 124.4 Consolidation of permit processing.
- 124.5 Modification, revocation and reissuance, or termination of permits.
- 124.6 Draft permits.
- 124.7 Statement of basis.
- 124.8 Fact sheet.
- 124.9 Administrative record for draft permits when EPA is the permitting authority.
- 124.10 Public notice of permit actions and public comment period.
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- Sec.
 124.13 Obligation to raise issues and provide information during the public comment period.
 124.14 Reopening of the public comment period.
 124.15 Issuance and effective date of permit.
 124.16 Stays of contested permit conditions.
 124.17 Response to comments.
 124.18 Administrative record for final permit when EPA is the permitting authority.
 124.19 Appeal of RCRA, UIC and PSD permits.
 124.20 Computation of time.
 124.21 Effective date of Part 124.

Subpart B—Specific Procedures Applicable to RCRA Permits [Reserved]

Subpart C—Specific Procedures Applicable to PSD Permits

- 124.41 Definitions applicable to PSD permits.
 124.42 Additional procedures for PSD permits affecting Class I areas.

Subpart D—Specific Procedures Applicable to NPDES Permits

- 124.51 Purpose and scope.
 124.52 Permits required on a case-by-case basis.
 124.53 State certification.
 124.54 Special provisions for State certification and concurrence on applications for section 301(h) variances.
 124.55 Effect of State certification.
 124.56 Fact sheets.
 124.57 Public notice.
 124.58 Special procedures for EPA-issued general permits for point sources other than separate storm sewers.
 124.59 Conditions requested by the Corps of Engineers and other government agencies.
 124.60 Issuance and effective date and stays of NPDES permits.
 124.61 Final environmental impact statement.
 124.62 Decision on variances.
 124.63 Procedures for variances when EPA is the permitting authority.
 124.64 Appeals of variances.
 124.65 Special procedures for discharge into marine waters under section 301(h).
 124.66 Special procedures for decisions on thermal variances under section 316(a).

Title 40—Protection of Environment

Subpart E—Evidentiary Hearing for EPA-Issued NPDES Permits and EPA-Terminated RCRA Permits

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 124.71 Applicability.
 124.72 Definitions.
 124.73 Filing and submission of documents.
 124.74 Requests for evidentiary hearing.
 124.75 Decision on request for a hearing.
 124.76 Obligation to submit evidence and raise issues before a final permit is issued.
 124.77 Notice of hearing.
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 124.80 Filing and service.
 124.81 Assignment of Administrative Law Judge.
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 124.84 Summary determination.
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 124.87 Record of hearings.
 124.88 Proposed findings of fact and conclusions; brief.
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Subpart F—Non-Adversary Panel Procedures

- 124.111 Applicability.
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 124.113 Public notice of draft permits and public comment period.
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 124.116 Notice of hearing.
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 124.118 Submission of written comments on draft permit.
 124.119 Presiding Officer.
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 124.121 Opportunity for cross-examination.
 124.122 Record for final permit.
 124.123 Filing of brief, proposed findings of fact and conclusions of law and proposed modified permit.
 124.124 Recommended decision.
 124.125 Appeal from or review of recommended decision.
 124.126 Final decision.
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APPENDIX A TO PART 124—GUIDE TO DECISIONMAKING UNDER PART 124

AUTHORITY: Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*; Safe Drinking Water Act, 42 U.S.C. 300(f) *et seq.*; Clean Water Act, 33 U.S.C. 1251 *et seq.*; and Clean Air Act, 42 U.S.C. 1857 *et seq.*

Chapter I—Environmental Protection Agency

§ 124.1

Source: 48 FR 14264, Apr. 1, 1983, unless otherwise noted.

Subpart A—General Program Requirements

§ 124.1 Purpose and scope.

(a) This part contains EPA procedures for issuing, modifying, revoking and reissuing, or terminating all RCRA, UIC, PSD and NPDES "permits" other than RCRA and UIC "emergency permits" (see §§ 270.61 and 144.34) and RCRA "permits by rule" (§ 270.60). The latter kinds of permits are governed by Part 270. RCRA interim status and UIC authorization by rule are not "permits" and are covered by specific provisions in Parts 144, Subpart C, and 270. This part also does not apply to permits issued, modified, revoked and reissued or terminated by the Corps of Engineers. Those procedures are specified in 33 CFR Parts 320-327.

(b) Part 124 is organized into six subparts. Subpart A contains general procedural requirements applicable to all permit programs covered by these regulations. Subparts B through F supplement these general provisions with requirements that apply to only one or more of the programs. Subpart A describes the steps EPA will follow in re-

ceiving permit applications, preparing draft permits, issuing public notice, inviting public comment and holding public hearings on draft permits. Subpart A also covers assembling an administrative record, responding to comments, issuing a final permit decision, and allowing for administrative appeal of the final permit decision. Subpart B is reserved for specific procedural requirements for RCRA permits. There are none of these at present but they may be added in the future. Subpart C contains definitions and specific procedural requirements for PSD permits. Subpart D applies to NPDES permits until an evidentiary hearing begins, when Subpart E procedures take over for EPA-issued NPDES permits and EPA-terminated RCRA permits. Subpart F, which is based on the "initial licensing" provisions of the Administrative Procedure Act (APA), can be used instead of Subparts A through E in appropriate cases.

(c) Part 124 offers an opportunity for three kinds of hearings: A public hearing under Subpart A, an evidentiary hearing under Subpart E, and a panel hearing under Subpart F. This chart describes when these hearings are available for each of the five permit programs.

HEARINGS AVAILABLE UNDER THIS PART

Programs	Subpart		
	(A)	(E)	(F)
	Public hearing	Evidentiary hearing	Panel hearing
RCRA	On draft permit, at Director's discretion or on request (§ 124.12).	(1) Permit termination (RCRA section 300B). (2) With NPDES evidentiary hearing (§ 124.74(b)(2)).	(1) At RA's discretion in lieu of public hearing (§§ 124.12 and 124.111(a)(3)). (2) When consolidated with NPDES draft permit processed under Subpart F (§ 124.111(a)(1)(i)).
UIC	On draft permit, at Director's discretion or on request (§ 124.12).	With NPDES evidentiary hearing (§ 124.74(b)(2)).	(1) At RA's discretion in lieu of public hearing (§§ 124.12 and 124.111(a)(3)). (2) When consolidated with NPDES draft permit processed under Subpart F (§ 124.111(a)(1)(i)).
PSD	On draft permit, at Director's discretion or on request (§ 124.12).	Not available (§ 124.71(c)).	When consolidated with NPDES draft permit processed under Subpart F if RA determines that CAA one year deadline will not be violated.
NPDES (other than general permit).	On draft permit, at Director's discretion or on request (§ 124.12).	(1) On request to challenge any permit condition or variance (§ 124.74).	(1) At RA's discretion when first decision on permit or variance request (§ 124.111)

HEARINGS AVAILABLE UNDER THIS PART—Continued

Programs	Subpart		
	(A)	(E)	(F)
	Public hearing	Evidentiary hearing	Panel hearing
NPDES (general permit).	On draft permit, at Director's discretion or on request (§ 124.12).	(2) At RA's discretion for any 301(h) request (§ 124.64(b)). Not available (§ 124.71(a)).	(2) At RA's discretion when request for evidentiary hearing is granted under § 124.75(a)(2) (§§ 124.74(c)(6) and 124.111(a)(2)). (3) At RA's discretion for any 301(h) request (§ 124.64(b)). At RA's discretion in lieu of public hearing (§ 124.111(a)(3)).
404	On draft permit or on application when no draft permit, at Director's discretion or on request (§ 124.12).	Not available (§ 124.71).	Not available (§ 124.111).

(d) This part is designed to allow permits for a given facility under two or more of the listed programs to be processed separately or together at the choice of the Regional Administrator. This allows EPA to combine the processing of permits only when appropriate, and not necessarily in all cases. The Regional Administrator may consolidate permit processing when the permit applications are submitted, when draft permits are prepared, or when final permit decisions are issued. This part also allows consolidated permits to be subject to a single public hearing under § 124.12, a single evidentiary hearing under § 124.75, or a single non-adversary panel hearing under § 124.120. Permit applicants may recommend whether or not their applications should be consolidated in any given case.

(e) Certain procedural requirements set forth in Part 124 must be adopted by States in order to gain EPA approval to operate RCRA, UIC, NPDES, and 404 permit programs. These requirements are listed in §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA) and signaled by the following words at the end of the appropriate Part 124 section or paragraph heading: (*applicable to State programs see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)*). Part 124 does not apply to PSD permits issued by an approved State.

(f) To coordinate decisionmaking when different permits will be issued by EPA and approved State programs,

this part allows applications to be jointly processed, joint comment periods and hearings to be held, and final permits to be issued on a cooperative basis whenever EPA and a State agree to take such steps in general or in individual cases. These joint processing agreements may be provided in the Memorandum of Agreement developed under §§ 123.24 (NPDES), 145.24 (UIC), 233.24 (404), and 271.8 (RCRA).

§ 124.2 Definitions.

(a) In addition to the definitions given in §§ 122.2 and 123.2 (NPDES), 144.3 and 145.2 (UIC); 233.3 (404), and 270.2 and 271.2 (RCRA), the definitions listed below apply to this part, except for PSD permits which are governed by the definitions in § 124.41. Terms not defined in this section have the meaning given by the appropriate Act.

Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations (NPDES) means all State, interstate, and Federal standards and limitations to which a "discharge" or a related activity in subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," and pretreatment standards under sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions. For RCRA, application also includes the information required by the Director under §§ 270.14 through 270.29 (contents of Part B of the RCRA application).

Appropriate Act and regulations means the Clean Water Act (CWA); the Solid Waste Disposal Act, as amended by the Resource Conservation Recovery Act (RCRA); or Safe Drinking Water Act (SDWA), whichever is applicable; and applicable regulations promulgated under those statutes. In the case of an "approved State program" appropriate Act and regulations includes program requirements.

Consultation with the Regional Administrator (§124.62(a)(2)) means review by the Regional Administrator following evaluation by a panel of the technical merits of all 301(k) applications approved by the Director. The panel (to be appointed by the Director of the Office of Water Enforcement and Permits) will consist of Headquarters, Regional, and State personnel familiar with the industrial category in question.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act of Federal Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217 and Pub. L. 95-576; 33 U.S.C. 1251 *et seq.*

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no "approved State program," and there is an EPA administered program, "Director" means the Regional Administrator. When there is an approved State program, "Director" normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permits prior to the approval of a State program, EPA may retain jurisdiction over that permit

after program approval; see § 123.1) In such cases, the term "Director" means the Regional Administrator and not the State Director.

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." A notice of intent to terminate a permit and a notice of intent to deny a permit as discussed in § 124.5, are types of "draft permits." A denial of a request for modification, revocation and reissuance or termination, as discussed in § 124.5, is not a "draft permit." A "proposal permit" is not a "draft permit." **EPA** ("EPA") means the United States "Environmental Protection Agency."

Facility or activity means any "HWM facility," UIC "injection well," NPDES "point source," or State 404 dredge or fill activity, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

General permit (NPDES and 404) means an NPDES or 404 "permit" authorizing a category of discharges under the CWA within a geographical area. For NPDES, a general permit means a permit issued under § 122.28. For 404, a general permit means a permit issued under § 233.37.

Interstate agency means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the "appropriate Act and regulations."

Major facility means any RCRA, UIC, NPDES, or 404 "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director.

NPDES means National Pollutant Discharge Elimination System.

Owner or operator means owner or operator of any "facility or activity" subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this part and Parts 122, 123, 144, 145, 233, 270, and 271. "Permit" includes RCRA "permit by rule" (§ 270.60), UIC area permit (§ 144.33), NPDES or 404 "general permit" (§§ 270.61, 144.34, and 233.38). Permit does not include RCRA interim status (§ 270.70), UIC authorization by rule (§ 144.21), or any permit which has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agency or employee thereof.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609, 42 U.S.C. 6901 *et seq.*).

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a "permit," including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the "appropriate Act and regulations."

SDWA means the Safe Drinking Water Act (Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 300f *et seq.*).

Section 404 program or State 404 program or 404 means an "approved State program" to regulate the "discharge of dredged material" and the "discharge of fill material" under section 404 of the Clean Water Act in "State regulated waters."

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.

State means any of the 50 states, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust

Territory of the Pacific Islands (except in the case of RCRA), and the Commonwealth Northern Mariana Islands (except in the case of CWA).

State Director means the chief administrative officer of any State or interstate agency operating an "approved program," or the delegated representative of the state Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

UIC means the Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved program."

Variance (NPDES) means any mechanism or provision under section 301 or 316 of CWA or under 40 CFR Part 125, or in the applicable "effluent limitations guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of CWA.

(b) For the purposes of Part 124, the term "Director" means the State Director or Regional Administrator and is used when the accompanying provision is required of EPA-administered programs and of State programs under §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA). The term "Regional Administrator" is used when the accompanying provision applies exclusively to EPA-issued permits and is not applicable to State programs under these sections. While States are not required to implement these latter provisions, they are not precluded from doing so, notwithstanding use of the term "Regional Administrator."

(c) The term "formal hearing" means any evidentiary hearing under Subpart E or any panel hearing under Subpart F but does not mean a public hearing conducted under § 124.12.

148 FR 14264, Apr. 1, 1983; 48 FR 30115, June 30, 1983, as amended at 49 FR 25981, June 25, 1984)

EFFECTIVE DATE NOTE: At 49 FR 25981, June 25, 1984, § 124.2(a) was amended by adding the definition "Consultation with the Regional Administrator", effective August 8, 1984.

§ 124.3 Application for a permit.

(a) *Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).* (1) Any person who requires a permit under the RCRA, UIC, NPDES, or PSD programs shall complete, sign, and submit to the Director an application for each permit required under §§ 270.1 (RCRA), 144.1 (UIC), 40 CFR 52.21 (PSD), and 122.1 (NPDES). Applications are not required for RCRA permits by rule (§ 270.60), underground injections authorized by rules (§§ 144.21 through 144.26), NPDES general permits (§ 122.28) and 404 general permits (§ 233.37).

(2) The Director shall not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit. See §§ 270.10, 270.13 (RCRA), 144.31 (UIC), 40 CFR 52.21 (PSD), and 122.21 (NPDES).

(3) Permit applications (except for PSD permits) must comply with the signature and certification requirements of §§ 122.22 (NPDES), 144.32 (UIC), 233.6 (404), and 270.11 (RCRA).

(b) [Reserved]

(c) The Regional Administrator shall review for completeness every application for an EPA-issued permit. Each application for an EPA-issued permit submitted by a new HWM facility, a new UIC injection well, a major PSD stationary source or major PSD modification, or an NPDES new source or NPDES new discharger should be reviewed for completeness by the Regional Administrator within 30 days of its receipt. Each application for an EPA-issued permit submitted by an existing HWM facility (both Parts A and B of the application), existing injection well or existing NPDES source should be reviewed for completeness within 60 days of receipt. Upon completing the review, the Regional Administrator shall notify the applicant in writing whether the application is

complete. If the application is incomplete, the Regional Administrator shall list the information necessary to make the application complete. When the application is for an existing HWM facility, an existing UIC injection well or an existing NPDES source, the Regional Administrator shall specify in the notice of deficiency a date for submitting the necessary information. The Regional Administrator shall notify the applicant that the application is complete upon receiving this information. After the application is completed, the Regional Administrator may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

(d) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under the applicable statutory provision including RCRA section 3008, SDWA sections 1423 and 1424, CAA section 167, and CWA sections 308, 309, 402(h), and 402(k).

(e) If the Regional Administrator decides that a site visit is necessary for any reason in conjunction with the processing of an application, he or she shall notify the applicant and a date shall be scheduled.

(f) The effective date of an application is the date on which the Regional Administrator notifies the applicant that the application is complete as provided in paragraph (c) of this section.

(g) For each application from a major new HWM facility, major new UIC injection well, major NPDES new source, major NPDES new discharger, or a permit to be issued under provisions of § 122.28(c), the Regional Administrator shall, no later than the effective date of the application, prepare and mail to the applicant a project decision schedule. (This paragraph does not apply to PSD permits.) The schedule shall specify target dates by which the Regional Administrator intends to:

- (1) Prepare a draft permit;
- (2) Give public notice;

- (3) Complete the public comment period, including any public hearing;
- (4) Issue a final permit; and
- (5) In the case of an NPDES permit, complete any formal proceedings under Subparts E or F.

(Clean Water Act (33 U.S.C. 1251 *et seq.*), Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), Clean Air Act (42 U.S.C. 7401 *et seq.*), Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*))

148 FR 14264, Apr. 1, 1983, as amended at 48 FR 39620, Sept. 1, 1983

§ 124.4 Consolidation of permit processing.

(a)(1) Whenever a facility or activity requires a permit under more than one statute covered by these regulations, processing of two or more applications for those permits may be consolidated. The first step in consolidation is to prepare each draft permit at the same time.

(2) Whenever draft permits are prepared at the same time, the statements of basis (required under § 124.7 for EPA-issued permits only) or fact sheets (§ 124.8), administrative records (required under § 124.9 for EPA-issued permits only), public comment periods (§ 124.10), and any public hearings (§ 124.12) on those permits should also be consolidated. The final permits may be issued together. They need not be issued together if in the judgment of the Regional Administrator or State Director(s), joint processing would result in unreasonable delay in the issuance of one or more permits.

(b) Whenever an existing facility or activity requires additional permits under one or more of the statutes covered by these regulations, the permitting authority may coordinate the expiration date(s) of the new permit(s) with the expiration date(s) of the existing permit(s) so that all permits expire simultaneously. Processing of the subsequent applications for renewal permits may then be consolidated.

(c) Processing of permit applications under paragraph (a) or (b) of this section may be consolidated as follows:

(1) The Director may consolidate permit processing at his or her discretion whenever a facility or activity requires all permits either from EPA or from an approved State.

(2) The Regional Administrator and the State Director(s) may agree to consolidate draft permits whenever a facility or activity requires permits from both EPA and an approved State.

(3) Permit applicants may recommend whether or not the processing of their applications should be consolidated.

(d) Whenever permit processing is consolidated and the Regional Administrator invokes the "initial licensing" provisions of Subpart F for an NPDES, RCRA, or UIC permit, any permit(s) with which that NPDES, RCRA or UIC permit was consolidated shall likewise be processed under Subpart F.

(e) Except with the written consent of the permit applicant, the Regional Administrator shall not consolidate processing a PSD permit with any other permit under paragraphs (a) or (b) of this section or process a PSD permit under Subpart F as provided in paragraph (d) of this section when to do so would delay issuance of the PSD permit more than one year from the effective date of the application under § 124.3(f).

§ 124.5 Modification, revocation and reissuance, or termination of permits.

(a) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) Permits (other than PSD permits) may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Director's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in §§ 122.62 or 122.64 (NPDES), 144.39 or 144.40 (UIC), 233.14 or 233.15 (404), and 270.41 or 270.43 (RCRA). All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Director decides the request is not justified, he or she shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice,

comment, or hearings. Denials by the Regional Administrator may be informally appealed to the Administrator by a letter briefly setting forth the relevant facts. The Administrator may direct the Regional Administrator to begin modification, revocation and reissuance, or termination proceedings under paragraph (c) of this section. The appeal shall be considered denied if the Administrator takes no action on the letter within 60 days after receiving it. This informal appeal is, under 5 U.S.C. 704, a prerequisite to seeking judicial review of EPA action in denying a request for modification, revocation and reissuance, or termination.

(c) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) (1) If the Director tentatively decides to modify or revoke and reissue a permit under §§ 122.62 (NPDES), 144.39 (UIC), 233.14 (404), or 270.41 (RCRA), he or she shall prepare a draft permit under § 124.6 incorporating the proposed changes. The Director may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits, the Director shall require the submission of a new application.

(2) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(3) "Minor modifications" as defined in §§ 122.63 (NPDES), 144.41 (UIC), 233.16 (404), and 270.42 (RCRA) are not subject to the requirements of this section.

(d) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) If the Director tentatively decides to ter-

minate a permit under §§ 122.64 (NPDES), 144.40 (UIC), 233.15 (404), or 270.43 (RCRA), he or she shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under § 124.6. In the case of EPA-issued permits, a notice of intent to terminate shall not be issued if the Regional Administrator and the permittee agree to termination in the course of transferring permit responsibility to an approved State under §§ 123.24(b)(1) (NPDES), 145.24(b)(1) (UIC), or 271.8(b)(6) (RCRA).

(e) When EPA is the permitting authority, all draft permits (including notices of intent to terminate) prepared under this section shall be based on the administrative record as defined in § 124.9.

(f) (*Applicable to State programs, see § 233.26 (404).*) Any request by the permittee for modification to an existing 404 permit (other than a request for a minor modification as defined in § 233.16 (404)) shall be treated as a permit application and shall be processed in accordance with all requirements of § 124.3.

(g)(1) (Reserved for PSD Modification Provisions)

(2) PSD permits may be terminated only by rescission under § 52.21(w) or by automatic expiration under § 52.21(r). Applications for rescission shall be processed under § 52.21(w) and are not subject to this part.

§ 124.6 Draft permits.

(a) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) Once an application is complete, the Director shall tentatively decide whether to prepare a draft permit (except in the case of State section 404 permits for which no draft permit is required under § 233.39) or to deny the application.

(b) If the Director tentatively decides to deny the permit application, he or she shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared

under this section. See § 124.6(e). If the Director's final decision (§ 124.15) is that the tentative decision to deny the permit application was incorrect, he or she shall withdraw the notice of intent to deny and proceed to prepare a draft permit under paragraph (d) of this section.

(c) *(Applicable to State programs, see §§ 123.25 (NPDES) and 233.26 (404).)* If the Director tentatively decides to issue an NPDES or 404 general permit, he or she shall prepare a draft general permit under paragraph (d) of this section.

(d) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* If the Director decides to prepare a draft permit, he or she shall prepare a draft permit that contains the following information:

(1) All conditions under § 122.41 and 122.43 (NPDES), 144.51 and 144.42 (UIC), 233.7 and 233.8 (404), or 270.30 and 270.32 (RCRA) (except for PSD permits);

(2) All compliance schedules under §§ 122.47 (NPDES), 144.53 (UIC), 233.10 (404), or 270.33 (RCRA) (except for PSD permits);

(3) All monitoring requirements under §§ 122.48 (NPDES), 144.54 (UIC), 233.11 (404), or 270.31 (RCRA) (except for PSD permits); and

(4) For:

(i) RCRA permits, standards for treatment, storage, and/or disposal and other permit conditions under § 270.30;

(ii) UIC permits, permit conditions under § 144.52;

(iii) PSD permits, permit conditions under 40 CFR § 52.21;

(iv) 404 permits, permit conditions under §§ 233.7 and 233.8;

(v) NPDES permits, effluent limitations, standards, prohibitions and conditions under §§ 122.41 and 122.42, including when applicable any conditions certified by a State agency under § 124.55, and all variances that are to be included under § 124.63.

(e) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* All draft permits prepared by EPA under this section shall be accompanied by a statement of basis (§ 124.7) or fact

sheet (§ 124.8), and shall be based on the administrative record (§ 124.9), publicly noticed (§ 124.10) and made available for public comment (§ 124.11). The Regional Administrator shall give notice of opportunity for a public hearing (§ 124.12), issue a final decision (§ 124.15) and respond to comments (§ 124.17). For RCRA, UIC or PSD permits, an appeal may be taken under § 124.19 and, for NPDES permits, an appeal may be taken under § 124.74. Draft permits prepared by a State shall be accompanied by a fact sheet if required under § 124.8.

§ 124.7 Statement of basis.

EPA shall prepare a statement of basis for every draft permit for which a fact sheet under § 124.8 is not prepared. The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

§ 124.8 Fact sheet.

(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)

(a) A fact sheet shall be prepared for every draft permit for a major HWM, UIC, 404, or NPDES facility or activity, for every 404 and NPDES general permit (§§ 233.37 and 122.28), for every NPDES draft permit that incorporates a variance or requires an explanation under § 124.56(b), and for every draft permit which the Director finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Director shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity.

(4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by § 124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under § 124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

(8) For NPDES permits, provisions satisfying the requirements of § 124.56.

§ 124.9 Administrative record for draft permits when EPA is the permitting authority.

(a) The provisions of a draft permit prepared by EPA under § 124.6 shall be based on the administrative record defined in this section.

(b) For preparing a draft permit under § 124.6, the record shall consist of:

(1) The application, if required, and any supporting data furnished by the applicant;

(2) The draft permit or notice of intent to deny the application or to terminate the permit;

(3) The statement of basis (§ 124.7) or fact sheet (§ 124.8);

(4) All documents cited in the statement of basis or fact sheet; and

(5) Other documents contained in the supporting file for the draft permit.

(6) For NPDES new source draft permits only, any environmental assessment, environmental impact statement (EIS), finding of no significant impact, or environmental information document and any supplement to an EIS that may have been prepared. NPDES permits other than permits to new sources as well as all RCRA, UIC and PSD permits are not subject to the environmental impact statement provisions of section 102(2)(C) of the National Environmental Policy Act, 42 U.S.C. 4321.

(c) Material readily available at the issuing Regional Office or published material that is generally available, and that is included in the administrative record under paragraphs (b) and (c) of this section, need not be physically included with the rest of the record as long as it is specifically referred to in the statement of basis or the fact sheet.

(d) This section applies to all draft permits when public notice was given after the effective date of these regulations.

§ 124.10 Public notice of permit actions and public comment period.

(a) *Scope.* (1) The Director shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied under § 124.6(b);

(ii) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* A draft permit has been prepared under § 124.6(d);

(iii) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404) and 271.14 (RCRA).)* A hearing has been scheduled under § 124.12, Subpart E, or Subpart F;

(iv) An appeal has been granted under § 124.19(c);

(v) *(Applicable to State programs, see § 233.26 (404).)* A State section 404 application has been received in cases when no draft permit will be prepared (see § 233.39); or

(vi) An NPDES new source determination has been made under § 122.29.

(2) No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under § 124.5(b). Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one permit or permit actions.

(b) *Timing (applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)).* (1) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under paragraph (a) of this section shall allow at least 30 days for public comment. For RCRA permits only, public notice shall allow at least 45 days for public comment. For EPA-issued permits, if the Regional Administrator determines under 40 CFR Part 6, Subpart F that an Environmental Impact Statement (EIS) shall be prepared for an NPDES new source, public notice of the draft permit shall not be given until after a draft EIS is issued.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(c) *Methods (applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)).* Public notice of activities described in paragraph (a)(1) of this section shall be given by the following methods:

(1) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(i) The applicant (except for NPDES and 404 general permits when there is no applicant);

(ii) Any other agency which the Director knows has issued or is required to issue a RCRA, UIC, PSD, NPDES or 404 permit for the same facility or activity (including EPA when the draft permit is prepared by the State);

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and

wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any affected States;

(iv) For NPDES and 404 permits only, any State agency responsible for plan development under CWA section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

(v) For NPDES permits only, any user identified in the permit application of a privately owned treatment works;

(vi) For 404 permits only, any reasonably ascertainable owner of property adjacent to the regulated facility or activity and the Regional Director of the Federal Aviation Administration if the discharge involves the construction of structures which may affect aircraft operations or for purposes associated with seaplane operations;

(vii) For PSD permits only, affected State and local air pollution control agencies, the chief executives of the city and county where the major stationary source or major modification would be located, any comprehensive regional land use planning agency and any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the regulated activity;

(viii) Persons on a mailing list developed by:

(A) Including those who request in writing to be on the list;

(B) Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

(C) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as Regional and State funded newsletters, environmental bulletins, or State law journals. (The Director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Director may delete from the list the name of any person who fails to respond to such a request.)

(ix)(A) To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and (B) To each State agency having any authority under State law with respect to the construction or operation of such facility.

(2)(i) For major permits and NPDES and 404 general permits, publication of a notice in a daily or weekly newspaper within the area affected by the facility or activity; and for EPA-issued NPDES general permits, in the FEDERAL REGISTER;

NOTE: The Director is encouraged to provide as much notice as possible of the NPDES of 404 draft general permit to the facilities or activities to be covered by the general permit.

(ii) For all RCRA permits, publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations.

(3) When the program is being administered by an approved State, in a manner constituting legal notice to the public under State law; and

(4) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) *Contents (applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)).* (1) *All public notices.* All public notices issued under this Part shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit, except in the case of NPDES and 404 draft general permits under §§ 122.28 and 233.37;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit, for NPDES or 404 general permits when there is no application.

(iv) Name, address and telephone number of a person from whom interested persons may obtain further in-

formation, including copies of the draft permit or draft general permit, as the case may be, statement of basis or fact sheet, and the application; and

(v) A brief description of the comment procedures required by §§ 124.11 and 124.12 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision.

(vi) For EPA-issued permits, the location of the administrative record required by § 124.9, the times at which the record will be open for public inspection, and a statement that all data submitted by the applicant is available as part of the administrative record.

(vii) For NPDES permits only, a general description of the location of each existing or proposed discharge point and the name of the receiving water. For draft general permits, this requirement will be satisfied by a map or description of the permit area. For EPA-issued NPDES permits only, if the discharge is from a new source, a statement as to whether an environmental impact statement will be or has been prepared.

(viii) For 404 permits only,

(A) The purpose of the proposed activity (including, in the case of fill material, activities intended to be conducted on the fill), a description of the type, composition, and quantity of materials to be discharged and means of conveyance; and any proposed conditions and limitations on the discharge;

(B) The name and water quality standards classification, if applicable, of the receiving waters into which the discharge is proposed, and a general description of the site of each proposed discharge and the portions of the site and the discharges which are within State regulated waters;

(C) A description of the anticipated environmental effects of activities conducted under the permit;

(D) References to applicable statutory or regulatory authority; and

(E) Any other available information which may assist the public in evaluating the likely impact of the proposed

activity upon the integrity of the receiving water.

(ix) Any additional information considered necessary or proper.

(2) *Public notices for hearings.* In addition to the general public notice described in paragraph (d)(1) of this section, the public notice of a hearing under § 124.12, Subpart E, or Subpart F shall contain the following information:

(i) Reference to the date of previous public notices relating to the permit;

(ii) Date, time, and place of the hearing;

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures; and

(iv) For 404 permits only, a summary of major issues raised to date during the public comment period.

(e) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)).* In addition to the general public notice described in paragraph (d)(1) of this section, all persons identified in paragraphs (c)(1) (i), (ii), (iii), and (iv) of this section shall be mailed a copy of the fact sheet or statement of basis (for EPA-issued permits), the permit application (if any) and the draft permit (if any).

[48 FR 14264, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 124.11 Public comments and requests for public hearings.

(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)

During the public comment period provided under § 124.10, any interested person may submit written comments on the draft permit or the permit application for 404 permits when no draft permit is required (see § 233.39) and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in § 124.17.

§ 124.12 Public hearings.

(a) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* (1) The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Director may also hold a public hearing at his or her discretion, whenever for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3) For RCRA permits only, (i) the Director shall hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under § 124.10(b)(1); (ii) whenever possible the Director shall schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in § 124.10.

(b) Whenever a public hearing will be held and EPA is the permitting authority, the Regional Administrator shall designate a Presiding Officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(c) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under § 124.10 shall automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.

(d) A tape recording or written transcript of the hearing shall be made available to the public.

(e)(1) At his or her discretion, the Regional Administrator may specify that RCRA or UIC permits be processed under the procedures in Subpart F.

(2) For initial RCRA permits for existing HWM facilities, the Regional Administrator shall have the discretion to provide a hearing under the procedures in Subpart F. The permit

applicant may request such a hearing pursuant to § 124.114 no one or more issues, if the applicant explains in his request why he or she believes those issues: (i) Are genuine issues to material fact; and (ii) determine the outcome of one or more contested permit conditions identified as such in the applicant's request, that would require extensive changes to the facility ("contested major permit conditions"). If the Regional Administrator decides to deny the request, he or she shall send to the applicant a brief written statement of his or her reasons for concluding that no such determinative issues have been presented for resolution in such a hearing.

[48 FR 14264, Apr. 1, 1983, as amended at 49 FR 17718, Apr. 24, 1984]

EFFECTIVE DATE NOTE: At 49 FR 17718, Apr. 24, 1984, paragraph (e) of § 124.12 was revised, effective October 24, 1984. For the convenience of the user, the superseded text appears as follows.

§ 124.12 Public hearings.

(e) At his or her discretion, the Regional Administrator may specify that RCRA and UIC permits be processed under the procedures in Subpart F.

§ 124.13 Obligation to raise issues and provide information during the public comment period.

All persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Director's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period (including any public hearing) under § 124.10. All supporting materials shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or Federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials. Com-

menters shall make supporting material not already included in the administrative record available to EPA as directed by the Regional Administrator. (A comment period longer than 30 days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this section. Commenters may request longer comment periods and they should be freely established under § 124.10 to the extent they appear necessary.)

§ 124.14 Reopening of the public comment period.

(a) If any data information or arguments submitted during the public comment period, including information or arguments required under § 124.13, appear to raise substantial new questions concerning a permit, the Regional Administrator may take one or more of the following actions:

(1) Prepare a new draft permit, appropriately modified, under § 124.6;

(2) Prepare a revised statement of basis under § 124.7, a fact sheet or revised fact sheet under § 124.8 and reopen the comment period under § 124.14; or

(3) Reopen or extend the comment period under § 124.10 to give interested persons an opportunity to comment on the information or arguments submitted.

(b) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under § 124.10 shall define the scope of the reopening.

(c) For RCRA, UIC, or NPDES permits, the Regional Administrator may also, in the circumstances described above, elect to hold further proceedings under Subpart F. This decision may be combined with any of the actions enumerated in paragraph (a) of this section.

(d) Public notice of any of the above actions shall be issued under § 124.10.

§ 124.15 Issuance and effective date of permit.

(a) After the close of the public comment period under § 124.10 on a draft permit, the Regional Administrator

shall issue a final permit decision. The Regional Administrator shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision on a RCRA, UIC, or PSD permit or for contesting a decision on an NPDES permit or a decision to terminate a RCRA permit. For the purposes of this section, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision shall become effective 30 days after the service of notice of the decision under paragraph (a) of this section, unless:

(1) A later effective date is specified in the decision; or

(2) Review is requested under § 124.19 (RCRA, UIC, and PSD permits) or an evidentiary hearing is requested under § 124.74 (NPDES permit and RCRA permit terminations); or

(3) No comments requested a change in the draft permit, in which case the permit shall become effective immediately upon issuance.

§ 124.16 Stays of contested permit conditions.

(a) *Stays.* (1) If a request for review of a RCRA or UIC permit under § 124.19 or an NPDES permit under § 124.74 or § 124.114 is granted or if conditions of a RCRA or UIC permit are consolidated for reconsideration in an evidentiary hearing on an NPDES permit under §§ 124.74, 124.82 or 124.114, the effect of the contested permit conditions shall be stayed and shall not be subject to judicial review pending final agency action. (No stay of a PSD permit is available under this section.) If the permit involves a new facility or new injection well, new source, new discharger or a recommencing discharger, the applicant shall be without a permit for the proposed new facility, injection well, source or discharger pending final agency action. See also § 124.60.

(2) Uncontested conditions which are not severable from those contested shall be stayed together with the contested conditions. Stayed provisions of permits for existing facilities,

injection wells, and sources shall be identified by the Regional Administrator. All other provisions of the permit for the existing facility, injection well, or source shall remain fully effective and enforceable.

(b) *Stays based on cross effects.* (1) A stay may be granted based on the grounds that an appeal to the Administrator under § 124.19 of one permit may result in changes to another EPA-issued permit only when each of the permits involved has been appealed to the Administrator and he or she has accepted each appeal.

(2) No stay of an EPA-issued RCRA, UIC, or NPDES permit shall be granted based on the staying of any State-issued permit except at the discretion of the Regional Administrator and only upon written request from the State Director.

(c) Any facility or activity holding an existing permit must:

(1) Comply with the conditions of that permit during any modification or revocation and reissuance proceeding under § 124.5; and

(2) To the extent conditions of any new permit are stayed under this section, comply with the conditions of the existing permit which correspond to the stayed conditions, unless compliance with the existing conditions would be technologically incompatible with compliance with other conditions of the new permit which have not been stayed.

§ 124.17 Response to comments.

(a) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* At the time that any final permit decision is issued under § 124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or the permit application (for section 404 permits only) raised during

the public comment period, or during any hearing.

(b) For EPA-issued permits, any documents cited in the response to comments shall be included in the administrative record for the final permit decision as defined in § 124.18. If new points are raised or new material supplied during the public comment period, EPA may document its response to those matters by adding new materials to the administrative record.

(c) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* The response to comments shall be available to the public.

§ 124.18 Administrative record for final permit when EPA is the permitting authority.

(a) The Regional Administrator shall base final permit decisions under § 124.15 on the administrative record defined in this section.

(b) The administrative record for any final permit shall consist of the administrative record for the draft permit and:

(1) All comments received during the public comment period provided under § 124.10 (including any extension or reopening under § 124.14);

(2) The tape or transcript of any hearing(s) held under § 124.12;

(3) Any written materials submitted at such a hearing;

(4) The response to comments required by § 124.17 and any new material placed in the record under that section;

(5) For NPDES new source permits only, final environmental impact statement and any supplement to the final EIS;

(6) Other documents contained in the supporting file for the permit; and

(7) The final permit.

(c) The additional documents required under paragraph (b) of this section should be added to the record as soon as possible after their receipt or publication by the Agency. The record shall be complete on the date the final permit is issued.

(d) This section applies to all final RCRA, UIC, PSD, and NPDES permits when the draft permit was subject to the administrative record re-

quirements of § 124.9 and to all NPDES permits when the draft permit was included in a public notice after October 12, 1979.

(e) Material readily available at the issuing Regional Office, or published materials which are generally available and which are included in the administrative record under the standards of this section or of § 124.17 ("Response to comments"), need not be physically included in the same file as the rest of the record as long as it is specifically referred to in the statement of basis or fact sheet or in the response to comments.

§ 124.19 Appeal of RCRA, UIC, and PSD permits.

(a) Within 30 days after a RCRA, UIC, or PSD final permit decision has been issued under § 124.15, any person who filed comments on that draft permit or participated in the public hearing may petition the Administrator to review any condition of the permit decision. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit decision. The 30-day period within which a person may request review under this section begins with the service of notice of the Regional Administrator's action unless a later date is specified in that notice. The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations and when appropriate, a showing that the condition in question is based on:

(1) A finding of fact or conclusion of law which is clearly erroneous, or

(2) An exercise of discretion or an important policy consideration which the Administrator should, in his or her discretion, review.

(b) The Administrator may also decide on his or her initiative to review any condition of any RCRA, UIC, or PSD permit issued under this part. The Administrator must act

under this paragraph within 30 days of the service date of notice of the Regional Administrator's action.

(c) Within a reasonable time following the filing of the petition for review, the Administrator shall issue an order either granting or denying the petition for review. To the extent review is denied, the conditions of the final permit decision become final agency action. Public notice of any grant of review by the Administrator under paragraph (a) or (b) of this section shall be given as provided in § 124.10. Public notice shall set forth a briefing schedule for the appeal and shall state that any interested person may file an amicus brief. Notice of denial of review shall be sent only to the person(s) requesting review.

(d) The Administrator may defer consideration of an appeal of a RCRA or UIC permit under this section until the completion of formal proceedings under Subpart E or F relating to an NPDES permit issued to the same facility or activity upon concluding that:

(1) The NPDES permit is likely to raise issues relevant to a decision of the RCRA or UIC appeals;

(2) The NPDES permit is likely to be appealed; and

(3) Either: (i) The interests of both the facility or activity and the public are not likely to be materially adversely affected by the deferral; or

(ii) Any adverse effect is outweighed by the benefits likely to result from a consolidated decision on appeal.

(e) A petition to the Administrator under paragraph (a) of this section is, under 5 U.S.C. 704, a prerequisite to the seeking of judicial review of the final agency action.

(f)(1) For purposes of judicial review under the appropriate Act, final agency action occurs when a final RCRA, UIC, or PSD permit is issued or denied by EPA and agency review procedures are exhausted. A final permit decision shall be issued by the Regional Administrator: (i) When the Administrator issues notice to the parties that review has been denied; (ii) when the Administrator issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or (iii) upon the completion of remand proceedings if

the proceedings are remanded, unless the Administrator's remand order specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.

(2) Notice of any final agency action regarding a PSD permit shall promptly be published in the FEDERAL REGISTER.

§ 124.20 Computation of time.

(a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.

(b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.

(c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.

(d) Whenever a party or interested person has the right or is required to act within a prescribed period after the service of notice or other paper upon him or her by mail, 3 days shall be added to the prescribed time.

§ 124.21 Effective date of Part 124.

(a) Except for paragraph (b) and (c) of this section, Part 124 will become effective July 18, 1980. Because this effective date will precede the processing of any RCRA or UIC permits, Part 124 will apply in its entirety to all RCRA and UIC permits.

(b) All provisions of Part 124 pertaining to the RCRA program will become effective on November 19, 1980.

(c) All provisions of Part 124 pertaining to the UIC program will become effective July 18, 1980, but shall not be implemented until the effective date of 40 CFR Part 146.

(d) This part does not significantly change the way in which NPDES permits are processed. Since October 12, 1979, NPDES permits have been the subject to almost identical requirements in the revised NPDES regulations which were promulgated on June 7, 1979. See 44 FR 32948. To the extent this part changes the revised NPDES permit regulations, those

changes will take effect as to all permit proceedings in progress on July 3, 1980.

(e) This part also does not significantly change the way in which PSD permits are processed. For the most part, these regulations will also apply to PSD proceedings in progress on July 18, 1980. However, because it would be disruptive to require retroactively a formal administrative record for PSD permits issued without one, §§ 124.9 and 124.18 will apply to PSD permits for which draft permits were prepared after the effective date of these regulations.

Subpart B—Specific Procedures Applicable to RCRA Permits—[Reserved]

Subpart C—Specific Procedures Applicable to PSD Permits

§ 124.41 Definitions applicable to PSD permits.

Whenever PSD permits are processed under this part, the following terms shall have the following meanings:

"Administrator," "EPA," and "Regional Administrator" shall have the meanings set forth in § 124.2, except when EPA has delegated authority to administer those regulations to another agency under the applicable subsection of 40 CFR § 52.21, the term "EPA" shall mean the delegate agency and the term "Regional Administrator" shall mean the chief administrative officer of the delegate agency.

"Application" means an application for a PSD permit.

"Appropriate Act and Regulations" means the Clean Air Act and applicable regulations promulgated under it.

"Approved program" means a State implementation plan providing for issuance of PSD permits which has been approved by EPA under the Clean Air Act and 40 CFR Part 51. An "approved State" is one administering an "approved program." "State Director" as used in § 124.4 means the person(s) responsible for issuing PSD permits under an approved program, or that person's delegated representative.

"Construction" has the meaning given in 40 CFR 52.21.

"Director" means the Regional Administrator.

"Draft permit" shall have the meaning set forth in § 124.2.

"Facility or activity" means a "major PSD stationary source" or "major PSD modification."

"Federal Land Manager" has the meaning given in 40 CFR 52.21.

"Indian Governing Body" has the meaning given in 40 CFR 52.21.

"Major PSD modification" means a "major modification" as defined in 40 CFR 52.21.

"Major PSD stationary source" means a "major stationary source" as defined in 40 CFR 52.21(b)(1).

"Owner or operator" means the owner or operator of any facility or activity subject to regulation under 40 CFR 52.21 or by an approved State.

"Permit" or "PSD permit" means a permit issued under 40 CFR 52.21 or by an approved State.

"Person" includes an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent or employee thereof.

"Regulated activity" or "activity subject to regulation" means a "major PSD stationary source" or "major PSD modification."

"Site" means the land or water area upon which a "major PSD stationary source" or "major PSD modification" is physically located or conducted, including but not limited to adjacent land used for utility systems; as repair, storage, shipping or processing areas; or otherwise in connection with the "major PSD stationary source" or "major PSD modification."

"State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.

§ 124.42 Additional procedures for PSD permits affecting Class I areas.

(a) The Regional Administrator shall provide notice of any permit application for a proposed major PSD stationary source or major PSD modi-

Thursday
December 20, 1984

40
CFR
Part
262

Part VII

**Environmental
Protection Agency**

40 CFR Part 262

**Hazardous Waste Management System;
Standards Applicable to Generators of
Hazardous Waste; Final Rule**

Title 40 of the Code of Federal Regulations Part 262 is amended as follows:

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

1. The authority citation for Part 262 reads as follows:

Authority: Secs. 1006, 2002, 3002, 3003, 3004 and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, (RCRA), 42 U.S.C. 6905, 6912, 6922, 6923, 6924, 6925.

2. In § 262.34, paragraph (c) is added to read as follows:

§ 262.34 Accumulation time.

(c)(1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in § 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he:

(i) Complies with §§ 265.171, 265.172, and 265.173(a) of this chapter; and

(ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

(2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in § 261.33(e) in excess of the amounts listed in paragraph (c)(1) of this section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with paragraph (a) of this section or other applicable provisions of this chapter. During the three day period the generator must continue to comply with paragraphs (c)(1)(i)-(ii) of this section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

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Environmental Protection Agency

Friday
January 4, 1985

Part III

**Environmental
Protection Agency**

40 CFR Parts 260, 261, 264, 265, and 266
Hazardous Waste Management System;
Definition of Solid Waste; Final Rule

APPENDIX B.—DEFINITION OF A SOLID WASTE DAMAGE INCIDENTS—ADDITIONS LIST—Continued

Damage Incident	Source
13. The NL Industries site (Salem County, New Jersey) recovers lead from spent automotive batteries and separates the plastic from the rubber casings. As a result of improper storage of batteries on the site and other factors relating to their processing, ground water, surface water, and soils are extensively contaminated with various heavy metals.	National Priorities List Aug. 1983.
14. Scientific Chemical Processing, Inc. (Cartersville, New Jersey) recovered and recycled various chemical wastes. As a result of a State Order, the company ceased operations in 1980. About 375,000 gallons of hazardous substances are stored on the site in tanks, drums, and tank trailers. Soils are extensively contaminated, run-off from the site is contaminated, and ground water contamination is likely.	Do.
15. In 1983, the State of Indiana filed suit against Norman Poir, an individual who contracted with Inmont Corporation to purchase what he was told was paint and solvent, in an attempt to recycle them to produce low grade paint. When Mr. Poir was unable to sell or give away the paint, he abandoned it on a 5-acre field he owned in Jackson Township, Indiana. Ground water samples indicate that the well on site contains hazardous levels of arsenic and lead. In addition, further tests have indicated that the paint waste has elevated levels of lead and chromium and that the ignitability of the waste classifies it as hazardous. The barrels remain on site, leaking contents onto the ground.	National Priorities List Update, July 1984.

For the reasons set out in the preamble, Title 40 of the Code of Federal Regulations is amended as follows:

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for Part 260 reads as follows:

Authority: Secs. 1008, 2002(a), 3001 through 3007, and 3010 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, and 6930).

2. Section 261.10 is amended by adding new definitions for "Boiler" and "Industrial Furnace" to appear alphabetically and by revising the definitions of "Designated facility" and "Incinerator."

§ 260.10 Definitions

"Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

- (1) (i) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and
- (ii) The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(iii) While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(iv) The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(2) The unit is one which the Regional Administrator has determined, on a case-by-case basis, to be a boiler, after considering the standards in § 260.32.

"Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of Parts 270 and 124 of this Chapter, a permit from a State authorized in accordance with Part 271 of this Chapter, or that is regulated under § 261.6(c)(2) or Subpart F of Part 266 of this Chapter, and that has been designated on the manifest by the generator pursuant to § 262.20.

"Incinerator" means any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.

"Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy:

- (1) Cement kilns
- (2) Lime kilns
- (3) Aggregate kilns
- (4) Phosphate kilns
- (5) Coke ovens
- (6) Blast furnaces
- (7) Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces,

sintering machine, roasters, and foundry furnaces)

- (8) Titanium dioxide chloride process oxidation reactors
- (9) Methane reforming furnaces
- (10) Pulping liquor recovery furnaces
- (11) Combustion devices used in the recovery of sulfur values from spent sulfuric acid
- (12) Such other devices as the Administrator may, after notice and comment, add to this list on the basis of one or more of the following factors:
 - (i) The design and use of the device primarily to accomplish recovery of material products;
 - (ii) The use of the device to burn or reduce raw materials to make a material product;
 - (iii) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;
 - (iv) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;
 - (v) The use of the device in common industrial practice to produce a material product; and
 - (vi) Other factors, as appropriate.

3. In Subpart C of Part 260, add the following § 260.30:

§ 260.30 Variances from classification as a solid waste.

In accordance with the standards and criteria in § 260.31 and the procedures in § 260.33, the Regional Administrator may determine on a case-by-case basis that the following recycled materials are not solid wastes:

- (a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in § 261.1(c)(8)(B) of this Chapter);
- (b) Materials that are reclaimed and then reused within the original primary production process in which they were generated;

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

4. In Subpart C of Part 260, add the following § 260.31:

§ 260.31 Standards and criteria for variances from classification as a solid waste.

(a) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Regional Administrator's decision will be based on the following standards and criteria:

(1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling);

(2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

(3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) The extent to which the material is handled to minimize loss;

(5) Other relevant factors.

(b) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original primary production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(2) The prevalence of the practice on an industry-wide basis;

(3) The extent to which the material is handled before reclamation to minimize loss;

(4) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(5) The location of the reclamation operation in relation to the production process;

(6) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(7) Whether the person who generates the material also reclaims it;

(8) Other relevant factors.

(c) The Regional Administrator may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(1) The degree of processing the material has undergone and the degree of further processing that is required;

(2) The value of the material after it has been reclaimed;

(3) The degree to which the reclaimed material is like an analogous raw material;

(4) The extent to which an end market for the reclaimed material is guaranteed;

(5) The extent to which the reclaimed material is handled to minimize loss;

(6) Other relevant factors.

5. In Subpart C of Part 260, add the following § 260.32:

§ 260.32 Variance to be classified as a boiler.

In accordance with the standards and criteria in § 260.10 (definition of "boiler"), and the procedures in § 260.33, the Regional Administrator may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in § 260.10, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to

produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

6. In Subpart C of Part 260, add the following § 260.33:

§ 260.33 Procedures for variances from classification as a solid waste or to be classified as a boiler.

The Regional Administrator will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed flame combustion devices as boilers:

(a) The applicant must apply to the Regional Administrator in the region where the recycler is located. The application must address the relevant criteria contained in § 260.31 or § 260.32 of this Part.

(b) The Regional Administrator will evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the locality where the recycler is located. The Regional Administrator will accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at his discretion. The Regional Administrator will issue a final decision after receipt of comments and after the hearing (if any), and this decision may not be appealed to the Administrator.

7. In Subpart C of Part 260, add the following § 260.40:

§ 260.40 Additional regulation of certain hazardous waste recycling activities on a case-by-case basis.

(a) The Regional Administrator may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in § 261.6(a)(2)(iv) of this Chapter should be regulated under § 261.6 (b) and (c) of this Chapter. The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Regional Administrator will consider the following factors:

(1) The types of materials accumulated or stored and the amounts accumulated or stored;

(2) The method of accumulation or storage;

(3) The length of time the materials have been accumulated or stored before being reclaimed;

(4) Whether any contaminants are being released into the environment, or are likely to be so released; and

(5) Other relevant factors.

The procedures for this decision are set forth in § 260.41 of this Chapter.

8. In Subpart C of Part 260, add the following § 260.41:

§ 260.41 Procedures for case-by-case regulation of hazardous waste recycling activities.

The Regional Administrator will use the following procedures when determining whether to regulate hazardous waste recycling activities described in § 261.6(a)(2)(iv) under the provisions of § 261.6 (b) and (c), rather than under the provisions of Subpart F of Part 266 of this Chapter.

(a) If a generator is accumulating the waste, the Regional Administrator will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of Subparts A, C, D, and E of Part 262 of this Chapter. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the Regional Administrator will hold a public hearing. The Regional Administrator will provide notice of the hearing to the public and allow public participation at the hearing. The Regional Administrator will issue a final order after the hearing stating whether or not compliance with Part 262 is required. The order becomes effective 30 days after service of the decision unless the Regional Administrator specifies a later date or unless review by the Administrator is requested. The order may be appealed to the Administrator by any person who participated in the public hearing. The Administrator may choose to grant or to deny the appeal. Final Agency action occurs when a final order is issued and Agency review procedures are exhausted.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of Parts 270 and 124 of this Chapter. The owner or operator of the facility must apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Regional Administrator's decision, he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on

the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the Agency's determination. The question of whether the Regional Administrator's decision was proper will remain open for consideration during the public comment period discussed under § 124.11 of this Chapter and in any subsequent hearing.

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

9. The authority citation for Part 261 reads as follows:

Authority: Secs. 1006, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6905, 6912(a), 6921, and 6922].

10. In § 261.1, paragraph (c) is added and paragraph (b) is revised to read as follows:

§ 261.1 Purpose and scope.

(b)(1) The definition of solid waste contained in this Part applies only to wastes that also are hazardous for purposes of the regulations implementing Subtitle C of RCRA. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(2) This Part identifies only some of the materials which are solid wastes and hazardous wastes under Sections 3007, 3013, and 7003 of RCRA. A material which is not defined as a solid waste in this Part, or is not a hazardous waste identified or listed in this Part, is still a solid waste and a hazardous waste for purposes of these sections if:

(i) In the case of Sections 3007 and 3013, EPA has reason to believe that the material may be a solid waste within the meaning of Section 1004(27) of RCRA and a hazardous waste within the meaning of Section 1004(5) of RCRA; or

(ii) In the case of Section 7003, the statutory elements are established.

(c) For the purposes of Sections 261.2 and 261.6:

(1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) "Sludge" has the same meaning used in § 260.10 of this Chapter;

(3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues

such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the

calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

11. Section 261.2 is revised to read as follows:

§ 261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by § 261.3(a) or that is not excluded by variance granted under §§ 260.30 and 260.31.

(2) A *discarded material* is any material which is:

- (i) *Abandoned*, as explained in paragraph (b) of this section; or
- (ii) *Recycled*, as explained in paragraph (c) of this section; or
- (iii) Considered *inherently waste-like*, as explained in paragraph (d) of this section.

(b) Materials are solid waste if they are *abandoned* by being:

- (1) Disposed of; or
- (2) Burned or incinerated; or
- (3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (c)(4) of this section.

(1) *Used in a manner constituting disposal.* (i) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:

- (A) Applied to or placed on the land in a manner that constitutes disposal; or
- (B) Contained in products that are applied to the land (in which case the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) *Burning for energy recovery.* (i) Materials noted with a "*" in column 2 of Table I are solid wastes when they are:

- (A) Burned to recover energy;
- (B) Used to produce a fuel;
- (C) Contained in fuels (in which case the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed.* Materials noted with a "*" in column 3 of Table I are solid wastes when reclaimed.

(4) *Accumulated speculatively.* Materials noted with a "*" in column 4 of Table I are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (261.2(c)(1))	Energy recovery/fuel (261.2(c)(2))	Reclamation (261.2(c)(3))	Speculative accumulation (261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials.....	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or .32).....	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste.....	(*)	(*)	(*)	(*)
By-products (listed in 40 CFR Part 261.31 or 261.32).....	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste.....	(*)	(*)	(*)	(*)
Commercial chemical products listed in 40 CFR § 261.33.....	(*)	(*)	(*)	(*)
Scrap metal.....	(*)	(*)	(*)	(*)

Note.—The terms "spent materials", "sludges", "by-products," and "scrap metal" are defined in § 261.1

(d) *Inherently waste-like materials.* The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) The Administrator will use the following criteria to add wastes to that list:

- (i)(A) The materials are ordinarily disposed of, burned, or incinerated; or
- (B) The materials contain toxic constituents listed in Appendix VIII of Part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and
- (ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) *Materials that are not solid waste when recycled.* (1) Materials are not solid wastes when they can be shown to be recycled by being:

- (i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
- (ii) Used or reused as effective substitutes for commercial products; or
- (iii) Returned to the original process from which they are generated, without first being reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i)-(iii) of this section:

- (i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or
- (ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or
- (iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraph (d)(1) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

12. Section 261.3 is amended by revising paragraph (c)(2) to read as follows:

§ 261.3 Definition of Hazardous Waste.

- (c)
- (2) Any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off), is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

13. Section 261.4 is revised by adding paragraphs (a)(6) and (a)(7) to read as follows:

§ 261.4 Exclusions.

(a) * * *

(6) Black liquor that is reclaimed in a Kraft pulping liquor recovery furnace and then reused in the Kraft paper process, unless it is accumulated speculatively as defined in § 261.1(c) of this Chapter;

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c) of this Chapter.

14. Section 261.5 is amended by revising paragraph (c) to read as follows:

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(c) Hazardous waste that is recycled and that is excluded from regulation under §§ 261.6 (a)(2)(iii) and (v), (a)(3), or 266.36 is not included in the quantity determinations of this section and is not subject to any requirements of this section. Hazardous waste that is subject to the requirements of §§ 261.6 (b) and (c) and Subparts C and D of Part 266 is included in the quantity determination of this section and is subject to the requirements of this section.

15. Section 261.6 is revised to read as follows

§ 261.6 Requirements for recyclable materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under Subparts C through G of Part 266 of this Chapter and all applicable provisions in Parts 270 and 124 of this Chapter:

- (i) Recyclable materials used in a manner constituting disposal (Subpart C);
- (ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of Part 264 or 265 of this Chapter (Subpart D);
- (iii) [Reserved for used oil];
- (iv) Recyclable materials from which precious metals are reclaimed (Subpart E);
- (v) Spent lead-acid batteries that are being reclaimed (Subpart G).

(3) The following recyclable materials are not subject to regulation under Parts 262 through 266 or Parts 270 or 124 of this Chapter, and are not subject to the notification requirements of Section 3010 of RCRA:

- (i) Industrial ethyl alcohol that is reclaimed;
- (ii) Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;
- (iii) Used oil that exhibits one or more of the characteristics of hazardous waste; or
- (iv) Scrap metal.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Parts 262 and 263 of this Chapter and the notification requirements under Section 3010 of RCRA, except as provided in paragraph (a) of this section.

(c)(1) Owners or operators of facilities that store recyclable materials are regulated under all applicable provisions of Subparts A through L of Parts 264 and 265 and Parts 270 and 124 of this Chapter and the notification requirement under Section 3010 of RCRA, except as provided in paragraph (a) of this section.

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

- (i) Notification requirements under section 3010 of RCRA;
- (ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of this Chapter.

18. Section 261.31 is amended by revising the hazardous waste listings F007, F008, F009, F010, F011, and F012 to read as follows:

§ 261.31 Hazardous waste from non-specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F007.....	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008.....	Plating bath residue from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010.....	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012.....	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)

17. Section 261.33 is amended by revising the introductory text to read as follows:

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are burned for purposes of energy recovery in lieu of their original intended use, when they are used to produce fuels in lieu of their original intended use, when they are applied to the land in lieu of their original intended use, or when they are contained in products that are applied to the land in lieu of their original intended use.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

18. The authority citation for Part 264 reads as follows:

Authority. Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6925).

19. In § 264.1, paragraph (g)(2) is revised to read as follows:

§ 264.1 Purpose, scope, and applicability.

(g) * * *

(2) The owner or operator of a facility managing recyclable materials described in § 261.6(a) (2) and (3) of this Chapter (except to the extent that requirements of this Part are referred to in Subparts C, D, F, or G of Part 266 of this Chapter).

20. Section 264.340(a) is revised to read as follows:

§ 264.340 Applicability.

(a) The regulations in this Subpart apply to owners or operators of facilities that incinerate hazardous waste, except

as § 264.1 provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(1) Owners or operators of hazardous waste incinerators (as defined in § 260.10 of this Chapter); and

(2) Owners or operators who burn hazardous waste in boilers or in industrial furnaces in order to destroy the wastes.

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

21. The authority citation for Part 265 reads as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6921(a), 6924, and 6925).

22. In § 265.1, paragraph (c)(6) is revised to read as follows:

§ 265.1 Purpose, Scope, and Applicability.

(c)
(6) The owner and operator of a facility managing recyclable materials described in § 261.6 (a) (2) and (3) of this Chapter (except to the extent that requirements of this Part are referred to in Subparts C, D, F, or G of Part 266 of this Chapter).

23. Section 265.340(a) is revised to read as follows:

§ 265.340 Applicability.

(a) The regulations in this Subpart apply to owners or operators of facilities that incinerate hazardous waste, except as § 264.1 provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(1) Owners or operators of hazardous waste incinerators (as defined in § 260.10 of this Chapter); and

(2) Owners or operators who burn hazardous wastes in boilers or in industrial furnaces in order to destroy the wastes.

24. Section 265.370 is revised to read as follows:

§ 265.370 Other thermal treatment.

The regulations in this Subpart apply to owners or operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as § 265.1 provides otherwise.

Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of Subpart O if the unit is an incinerator.

25. Part 266 is added to read as follows:

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

Subparts A-B—[Reserved]

Subpart C—Recyclable Materials Used in a Manner Constituting Disposal

Sec.

266.20 Applicability.

266.21 Standards applicable to generators and transporters of materials used in a manner that constitute disposal.

266.22 Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

Subpart D—Hazardous Waste Burned for Energy Recovery

266.30 Applicability.

266.31 Prohibitions. [Reserved]

266.32 Standards applicable to generators of hazardous waste fuel.

266.33 Standards applicable to transporters of hazardous waste fuel.

266.34 Standards applicable to marketers of hazardous waste fuel.

266.35 Standards applicable to burners of hazardous waste fuel.

266.36 Conditional exemption for spent materials and byproducts exhibiting a characteristic of hazardous waste.

Subpart E—[Reserved]

Subpart F—Recyclable Materials Utilized for Precious Metal Recovery

266.70 Applicability and requirements.

Subpart G—Spent Lead-acid Batteries Being Reclaimed

266.30 Applicability and requirements.

Authority: Sec. 1006, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), and 6924).

Subparts A-B—[Reserved]

Subpart C—Recyclable Materials Used in a Manner Constituting Disposal

§ 266.20 Applicability.

(a) The regulations of this Subpart apply to recyclable materials that are applied to or placed on the land:

(1) without mixing with any other substance(s); or

(2) after mixing with any other substance(s), unless the recyclable

material undergoes a chemical reaction so as to become inseparable from the other substance(s) by physical means; or

(3) after combination with any other substance(s) if the resulting combined material is not produced for the general public's use. These materials will be referred to throughout this Subpart as "materials used in a manner that constitutes disposal."

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means. Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation.

§ 266.21 Standards applicable to generators and transporters of materials used in a manner that constitute disposal.

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Parts 262 and 263 of this chapter, and the notification requirement under Section 3010 of RCRA.

§ 266.22 Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of Subparts A through L of Parts 264 and 265 and Parts 270 and 124 of this chapter and the notification requirement under Section 3010 of RCRA.

§ 266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of Subparts A through N of Parts 264 and 265 and Parts 270 and 124 of this chapter and the notification requirement under Section 3010 of RCRA. (These requirements do not apply to products which contain these recyclable materials under the provisions of § 266.20(b) of this chapter.)

Subpart D—Hazardous Waste Burned for Energy Recovery**§ 266.30 Applicability.**

(a) The regulations of this Subpart apply to hazardous wastes that are burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of Part 264 or 265 of this chapter, except as provided by paragraph (b) of this section. Such hazardous wastes burned for energy recovery are termed "hazardous waste fuel". However, hazardous waste fuels produced from hazardous waste by blending or other treatment by a person who neither generated the waste nor burns the fuel are not subject to regulation at the present time.

(b) The following hazardous wastes are not regulated under this subpart:

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in Subpart C of Part 261 of this chapter. Such used oil is subject to regulation under Subpart E of Part 266 rather than this subpart; and

(2) Hazardous wastes that are exempt from regulation under the provisions of § 261.4 of this Chapter and hazardous wastes that are subject to the special requirements for small quantity generators under the provisions of § 261.5 of this Chapter.

§ 266.31 Prohibitions. [Reserved]**§ 266.32 Standards applicable to generators of hazardous waste fuel.**

(a) Generators of hazardous waste fuel are subject to the requirements of Part 262 of this chapter except that § 266.36 exempts certain spent materials and by-products from these provisions;

(b) Generators who are marketers also must comply with § 266.34;

(c) Generators who are burners also must comply with § 266.35.

§ 266.33 Standards applicable to transporters of hazardous waste fuel.

(a) Transporters of hazardous waste fuel from generator to marketer, or from a generator to a burner are subject to the requirements of Part 263 of this Chapter, except that § 266.36 exempts certain spent materials and by-products from these provisions.

(b) Transporters of hazardous waste fuel from marketers to burners are not presently subject to regulation.

§ 266.34 Standards applicable to marketers of hazardous waste fuel.

Persons who market hazardous waste fuel are called "marketers". Marketers include generators who market hazardous waste fuel directly to a

burner, and persons who receive hazardous waste from generators and produce, process, or blend hazardous waste fuel from these hazardous wastes. Persons who distribute but do not process or blend hazardous waste fuel are also marketers, but are not presently subject to regulation. Marketers (other than distributors) are subject to the following requirements: *Prohibitions:*

(a)-(b) [Reserved]

(c) *Storage.* (1) Marketers who are generators are subject to the requirements of § 262.34 of this chapter, or to Subparts A through L of Parts 264 and 265 and Parts 270 and 124 of this chapter, except as provided by § 266.36 of this Subpart for certain spent materials and by-products;

(2) Marketers who receive hazardous wastes from generators, and produce, process, or blend hazardous waste fuel from these hazardous wastes, are subject to regulation under all applicable provisions of Subparts A through L of Parts 264 and 265 and Parts 270 and 124 of this chapter, except as provided by § 266.36 of this subpart for certain spent materials and by-products.

§ 266.35 Standards applicable to burners of hazardous waste fuel.

(a) [Reserved]

(b) *Notification.* [Reserved]

(c) Burners that store hazardous waste fuel prior to burning are subject to the requirements of § 262.34 of this chapter, or to all applicable requirements in Subparts A through L of Part 264 or Part 265 of this chapter with respect to such storage, except as provided by § 266.36 of this subpart for certain spent materials and by-products.

§ 266.36 Conditional exemption for spent materials and by-products exhibiting a characteristic of hazardous waste.

(a) Except as provided in paragraph (b), hazardous waste fuels that are spent materials and by-products and that are hazardous only because they exhibit a characteristic of hazardous waste are not subject to the notification requirements of Section 3010 of RCRA, the generator, transporter, or storage requirements of Parts 262 through 265, 270 and 124 of this chapter.

(b) This exemption does not apply when the spent material or by-product is stored in a surface impoundment prior to burning.

Subpart E—[Reserved]**Subpart F—Recyclable Materials Utilized for Precious Metal Recovery****§ 266.70 Applicability and requirements.**

(a) The regulations of this subpart apply to recyclable materials that are

reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this Subpart are subject to the following requirements:

(1) Notification requirements under Section 3010 of RCRA;

(2) Subpart B of Part 262 (for generators), §§ 263.20 and 263.21 (for transporters), and §§ 265.71 and 265.72 (for persons who store) of this chapter;

(c) Persons who store recycled materials that are regulated under this Subpart must keep the following records to document that they are not accumulating these materials speculatively (as defined in § 261.1(c) of this chapter):

(i) Records showing the volume of these materials stored at the beginning of the calendar year;

(ii) The amount of these materials generated or received during the calendar year; and

(iii) the amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this Subpart that are accumulated speculatively (as defined in § 261.1(c) of this chapter) are subject to all applicable provisions of Parts 262 through 265, 270 and 124 of this chapter.

Subpart G—Spent Lead-Acid Batteries Being Reclaimed**§ 266.30 Applicability and requirements.**

(a) The regulations of this Subpart apply to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport, or collect spent batteries, or who store spent batteries but do not reclaim them are not subject to regulation under Parts 262 through 266 or Parts 270 or 124 of this Chapter, and also are not subject to the requirements of Section 3010 of RCRA.

(b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements:

(1) Notification requirements under Section 3010 of RCRA;

(2) All applicable provisions in Subparts A, B (but not § 264.13 (waste analysis)), C, D, E (but not § 264.71 or § 264.72 (dealing with the use of the manifest and manifest discrepancies)), and F through L of Part 264 of this chapter;

(3) All applicable provisions in Subparts A, B (but not § 265.13 (waste analysis)), C, D, E (but not § 265.71 and

§ 265.72 (dealing with use of the manifest and manifest discrepancies)), and F through L of Part 265 of this chapter;

(4) All applicable provisions in Parts 270 and 124 of this chapter.

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Environmental Protection Agency

Monday
January 14, 1985

Part II

**Environmental
Protection Agency**

**40 CFR Parts 261, 264, 265, 270, and 775
Hazardous Waste Management System;
Dioxin-Containing Wastes; Rule**

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- XI. List of Subjects**
- 40 CFR Part 261**
Hazardous materials, Waste treatment and disposal, Recycling.
- 40 CFR Part 264**
Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Security bonds, Waste treatment and disposal.
- 40 CFR Part 265**
Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Security bonds, Waste treatment and disposal, Water supply.
- 40 CFR Part 270**
Administrative practice and procedure, Reporting and recordkeeping requirements, Hazardous materials, Waste treatment and disposal, Water pollution control, Water supply, Confidential business information.
- 40 CFR Part 775**
Environmental protection, Hazardous materials, Pesticides and pests, Waste treatment and disposal.
Dated: December 20, 1984.
Alvin L. Alm,
Acting Administrator.
- For the reasons set out in the preamble, Title 40 of the Code of Federal Regulations is amended to read as follows:
- PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**
1. The authority citation for Part 261 reads as follows:
Authority: Secs. 1008, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978, as amended (42 U.S.C. 6905, 6912(a), 6921, and 6922).
2. In § 261.5, paragraphs (e)(1) and (e)(2) are revised to read as follows:
§ 261.5 Special requirements for hazardous waste generated by small quantity generators.
* * * * *
(e) * * *
(1) A total of one kilogram of acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).
(2) A total of 100 kilograms of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).
* * * * *
3. In § 261.7, the introductory text of paragraphs (b)(1) and (b)(3) are revised to read as follows:
§ 261.7 Residues of hazardous waste in empty containers.
* * * * *
(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in §§ 261.31, 261.32, or 261.33(e) of this chapter is empty if:
* * * * *
(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in §§ 261.31, 261.32, or 261.33(e) is empty if:
* * * * *
4. In § 261.30, paragraph (d) is revised to read as follows:

§ 261.30 General.

(d) The following hazardous wastes listed in § 261.31 or § 261.32 are subject to the exclusion limits for acutely

hazardous wastes established in § 261.5: EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

5. In § 261.31, add the following waste streams:

§ 261.31 Hazardous waste from nonspecific sources.

Industry	EPA hazardous waste No.	Hazardous waste	Hazard code
Generic	FO20	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
	FO21	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
	FO22	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
	FO23	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
	FO26	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
	FO27	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
	FO28	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27.	(T)

6. § 261.33(f) is amended by revising the hazardous waste numbers for the following substances:

§ 261.33 Discarded commercial chemical product, off-specification species, container residues, and spill residues thereof.

(f)

Hazardous waste No.	Substance
See FO27	Pentachlorophenol.
See FO27	Phenol, pentachloro- Do..... Phenol, 2,3,4,8-tetrachloro- Do..... Phenol, 2,4,5-trichloro- Do..... Phenol, 2,4,6-trichloro-
See FO27	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
See FO27	Silvex
See FO27	2,4,5-T.
See FO27	2,3,4,6-Tetrachlorophenol.
See FO27	2,4,5-Trichlorophenol. Do..... 2,4,6-Trichlorophenol. Do..... 2,4,5-Trichlorophenoxyacetic acid.

7. Amend Table 1 in Appendix III of Part 261, by removing the entry "chlorinated dibenzodioxins", and adding the following entries in alphabetical order:

Appendix III—Chemical Analysis Test Methods

TABLE 1.—ANALYTICAL METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Chlorinated dibenzo-p-dioxins.....		8280
Chlorinated dibenzofurans.....		8280

8. Amend Table 3 in Appendix III of Part 261, by adding the following entry under Organic Analytical Methods—Gas Chromatographic/Mass Spectrometry Methods (GC/MS) after the entry entitled "GC/MS Semi-Volatiles, Capillary:

TABLE 3.—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Analysis of Chlorinated Dioxins and Dibenzofurans.....			8.2	8280

9. Add the following entries in numerical order to Appendix VII of Part 261:

Appendix VII—Basis for Listing Hazardous Wastes

EPA hazardous waste No.	Hazardous constituents for which listed
FO20	Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
FO21	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
FO22	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
FO23	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
FO26	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
FO27	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
FO28	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

10. Add the following constituents in alphabetical order to Appendix VIII of Part 261:

Appendix VIII—Hazardous Constituents

- hexachlorodibenzo-p-dioxins
- hexachlorodibenzofurans
- pentachlorodibenzo-p-dioxins
- pentachlorodibenzofurans

tetrachlorodibenzo-*p*-dioxins
tetrachlorodibenzofurans

11. Appendix X is added to Part 261 to read as follows:

Appendix X—Method of Analysis for Chlorinated dibenzo-*p*-dioxins and dibenzofurans^{1, 2, 3, 4}

Method 8280

1. *Scope and Application*

1.1 This method measures the concentration of chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans in chemical wastes including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soils.

1.2 The sensitivity of this method is dependent upon the level of interferences.

1.3 This method is recommended for use only by analysts experienced with residue analysis and skilled in mass spectral analytical techniques.

1.4 Because of the extreme toxicity of these compounds, the analyst must take necessary precautions to prevent exposure to himself, or to others, of materials known or believed to contain CDDs or CDFs.

2. *Summary of the Method*

2.1 This method is an analytical extraction cleanup procedure, and capillary column gas chromatograph-low resolution mass spectrometry method, using capillary column GC/MS conditions and internal standard techniques, which allow for the measurement of PCDDs and PCDFs in the extract.

2.2 If interferences are encountered, the method provides selected general purpose cleanup procedures to aid the analyst in their elimination.

3. *Interferences*

3.1 Solvents, reagents, glassware, and other sample processing hardware may yield

discrete artifacts and/or elevated baselines causing misinterpretation of gas chromatograms. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by running method blanks. Specific selection of reagents and purification of solvents by distillation in all-glass systems may be required.

3.2 Interferences co-extracted from the samples will vary considerably from source to source, depending upon the diversity of the industry being sampled. PCDD is often associated with other interfering chlorinated compounds such as PCB's which may be at concentrations several orders of magnitude higher than that of PCDD. While general cleanup techniques are provided as part of this method, unique samples may require additional cleanup approaches to achieve the sensitivity stated in Table 1.

3.3 The other isomers of tetrachlorodibenzo-*p*-dioxin may interfere with the measurement of 2,3,7,8-TCDD. Capillary column gas chromatography is required to resolve those isomers that yield virtually identical mass fragmentation patterns.

4. *Apparatus and Materials*

4.1. Sampling equipment for discrete or composite sampling.

4.1.1 Grab sample bottle—amber glass, 1-liter or 1-quart volume. French or Boston Round design is recommended. The container must be washed and solvent rinsed before use to minimize interferences.

4.1.2. Bottle caps—threaded to screw on to the sample bottles. Caps must be lined with Teflon. Solvent washed foil, used with the shiny side towards the sample, may be substituted for the Teflon if sample is not corrosive.

4.1.3. Compositing equipment—automatic or manual compositing system. No tygon or rubber tubing may be used, and the system must incorporate glass sample containers for the collection of a minimum of 250 ml. Sample containers must be kept refrigerated after sampling.

4.2 Water bath—heated, with concentric ring cover, capable of temperature control ($\pm 2^\circ\text{C}$). The bath should be used in a hood.

4.3 Gas chromatograph/mass spectrometer data system.

4.3.1 Gas chromatograph: An analytical system with a temperature-programmable gas chromatograph and all required accessories including syringes, analytical columns, and gases.

4.3.2 Column: SP-2250 coated on a 30 m long \times 0.25 mm I.D. glass column (Supelco No. 2-3714 or equivalent). Glass capillary column conditions: Helium carrier gas at 30 cm/sec linear velocity run splitless. Column temperature is 210 $^\circ\text{C}$.

4.3.3 Mass spectrometer: Capable of scanning from 35 to 450 amu every 1 sec or less, utilizing 70 volts (nominal) electron energy in the electron impact ionization mode and producing a mass spectrum which meets all the criteria in Table 2 when 50 ng of decafluorotriphenyl-phosphine (DFTPP) is injected through the GC inlet. The system must also be capable of selected ion monitoring (SIM) for at least 4 ions simultaneously, with a cycle time of 1 sec or

less. Minimum integration time for SIM is 100 ms. Selected ion monitoring is verified by injecting .015 ng of TCDD Cl^{37} to give a minimum signal to noise ratio of 5 to 1 at mass 328.

4.3.4 GC/MS interface: Any GC-to-MS interface that gives acceptable calibration points at 50 ng per injection for each compound of interest and achieves acceptable tuning performance criteria (see Sections 6.1-6.3) may be used. GC-to-MS interfaces constructed of all glass or glass-lined materials are recommended. Glass can be deactivated by silanizing with dichlorodimethylsilane. The interface must be capable of transporting at least 10 ng of the components of interest from the GC to the MS.

4.3.5 Data system: A computer system must be interfaced to the mass spectrometer. The system must allow the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program. The computer must have software that can search any GC/MS data file for ions of a specific mass and that can plot such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be able to integrate the abundance, in any EICP, between specified time or scan number limits.

4.4 Pipettes-Disposable, Pasteur, 150 mm long \times 5 mm ID (Fisher Scientific Co., No. 13-678-8A or equivalent).

4.5 Flint glass bottle (Teflon-lined screw cap).

4.6 R \ddot{e} act-vial (silanized) (Pierce Chemical Co.).

5. *Reagents*

5.1 Potassium hydroxide-(ACS), 2% in distilled water.

5.2 Sulfuric acid-(ACS), concentrated.

5.3 Methylene chloride, hexane, benzene, petroleum ether, methanol, tetradecane-pesticide quality or equivalent.

5.4 Prepare stock standard solutions of TCDD and ^{37}Cl -TCDD (molecular weight 328) in a glove box. The stock solutions are stored in a glovebox, and checked frequently for signs of degradation or evaporation, especially just prior to the preparation of working standards.

5.5 Alumina-basic, Woelm; 80/200 mesh. Before use activate overnight at 600 $^\circ\text{C}$, cool to room temperature in a desiccator.

5.6 Purified nitrogen gas

6.0 *Calibration*

6.1 Before using any cleanup procedure, the analyst must process a series of calibration standards through the procedure to validate elution patterns and the absence of interferences from reagents.

6.2 Prepare GC/MS calibration standards for the internal standard technique that will allow for measurement of relative response factors of at least three CDD/ ^{37}CDD ratios. Thus, for TCDDs, at least three TCDD/ ^{37}Cl -TCDD and TCDF/ ^{37}Cl -TCDF must be determined.⁵ The ^{37}Cl -TCDD/F concentration

¹ This method is appropriate for the analysis of tetra-, penta-, and hexachlorinated dibenzo-*p*-dioxins and -dibenzofurans.

² Analytical protocol for determination of TCDDs in phenolic chemical wastes and soil samples obtained from the proximity of chemical dumps. T.O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

³ Analytical protocol for determination of chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans in river water. T.O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

⁴ In general, the techniques that should be used to handle these materials are those which are followed for radioactive or infectious laboratory materials. Assistance in evaluating laboratory practices may be obtained from industrial hygienists and persons specializing in safe laboratory practices. Typical infectious waste incinerators are probably not satisfactory devices for disposal of materials highly contaminated with CDDs or CDFs. Safety instructions are outlined in EPA Test Method 813(4.0)

See also: 1) "Program for monitoring potential contamination in the laboratory following the handling and analyses of chlorinated dibenzo-*p*-dioxins and dibenzofurans" by F. D. Hileman et al., *In: Human and Environmental Risks of Chlorinated Dioxins and Related Compounds*, R.E. Tucker, et al., eds., Plenum Publishing Corp., 1983. 2) Safety procedures outlined in EPA Method 813, Federal Register volume 44, No. 233, December 3, 1979.

⁵ ^{37}Cl -labelled 2,3,7,8-TCDD and 2,3,7,8-TCDF are available from K.O.R. Isotopes, and Cambridge

in the standard should be fixed and selected to yield a reproducible response at the most sensitive setting of the mass spectrometer. Response factors for PCDD and HxCDD may be determined by measuring the response of the tetrachloro-labelled compounds relative to that of the unlabelled 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PCDD or 1,2,3,4,7,8-HxCDD, which are commercially available.⁴

6.3 Assemble the necessary GC/MS apparatus and establish operating parameters equivalent to those indicated in Section 11.1 of this method. Calibrate the GC/MS system according to Eichelberger, et al. (1975) by the use of decafluorotriphenyl phosphine (DFTPP). By injecting calibration standards, establish the response factors for CDDs vs. ³⁷Cl-TCDD, and for CDFs vs. ³⁷Cl-TCDF. The detection limit provided in Table 1 should be verified by injecting .015 ng of ³⁷Cl-TCDD which should give a minimum signal to noise ratio of 5 to 1 at mass 328.

7. Quality Control

7.1 Before processing any samples, the analyst should demonstrate through the analysis of a distilled water method blank, that all glassware and reagents are interference-free. Each time a set of samples is extracted, or there is a change in reagents, a method blank should be processed as a safeguard against laboratory contamination.

7.2 Standard quality assurance practices must be used with this method. Field replicates must be collected to measure the precision of the sampling technique. Laboratory replicates must be analyzed to establish the precision of the analysis. Fortified samples must be analyzed to establish the accuracy of the analysis.

8. Sample Collection, Preservation, and Handling

8.1 Grab and composite samples must be collected in glass containers. Conventional sampling practices should be followed, except that the bottle must not be prewashed with sample before collection. Composite samples should be collected in glass containers in accordance with the requirements of the RCRA program. Sampling equipment must be free of tygon and other potential sources of contamination.

8.2 The samples must be iced or refrigerated from the time of collection until extraction. Chemical preservatives should not be used in the field unless more than 24 hours will elapse before delivery to the laboratory. If an aqueous sample is taken and the sample will not be extracted within 48 hours of collection, the sample should be adjusted to a pH range of 6.0-8.0 with sodium hydroxide or sulfuric acid.

Isotopes, Inc., Cambridge, MA. Proper standardization requires the use of a specific labelled isomer for each congener to be determined. However, the only labelled isomers readily available are ³⁷Cl-2,3,7,8-TCDD and ³⁷Cl-2,3,7,8-TCDF. This method therefore uses these isomers as surrogates for the CDDs and CDFs. When other labelled CDDs and CDFs are available, their use will be required.

⁴ This procedure is adopted because standards are not available for most of the CDDs and CDFs, and assumes that all the congeners will show the same response as the unlabelled congener used as a standard. Although this assumption may not be true in all cases, the error will be small.

8.3 All samples must be extracted within 7 days and completely analyzed within 30 days of collection.

9. Extraction and Cleanup Procedures

9.1 Use an aliquot of 1-10 g sample of the chemical waste or soil to be analyzed. Soils should be dried using a stream of prepurified nitrogen and pulverized in a ball-mill or similar device. Perform this operation in a clear area with proper hood space. Transfer the sample to a tared 125 ml flint glass bottle (Teflon-lined screw cap) and determine the weight of the sample. Add an appropriate quantity of ³⁷Cl-labelled 2,3,7,8-TCDD (adjust the quantity according to the required minimum detectable concentration), which is employed as an internal standard.

9.2 Extraction

9.2.1 Extract chemical waste samples by adding 10 ml methanol, 40 ml petroleum ether, 50 ml doubly distilled water, and then shaking the mixture for 2 minutes. Tars should be completely dissolved in any of the recommended neat solvents. Activated carbon samples must be extracted with benzene using method 3540 in SW-846 (Test Methods for Evaluating Solid Waste—Physical/Chemical Methods, available from G.P.O. Stock #055-022-81001-2). Quantitatively transfer the organic extract or dissolved sample to a clean 250 ml flint glass bottle (Teflon lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.2.2 Extract soil samples by adding 40 ml of petroleum ether to the sample, and then shaking for 20 minutes. Quantitatively transfer the organic extract to a clean 250 ml flint glass bottle (Teflon-lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.3 Wash the organic layer with 50 ml of 20% aqueous potassium hydroxide by shaking for 10 minutes and then remove and discard the aqueous layer.

9.4 Wash the organic layer with 50 ml of doubly distilled water by shaking for 2 minutes, and discard the aqueous layer.

9.5 Cautiously add 50 ml concentrated sulfuric acid and shake for 10 minutes. Allow the mixture to stand until layers separate (approximately 10 minutes), and remove and discard the acid layer. Repeat acid washing until no color is visible in the acid layer.

9.6 Add 50 ml of doubly distilled water to the organic extract and shake for 2 minutes. Remove and discard the aqueous layer and dry the organic layer by adding 10g of anhydrous sodium sulfate.

9.7 Concentrate the extract to incipient dryness by heating in a 55° C water bath and simultaneously flowing a stream of prepurified nitrogen over the extract. Quantitatively transfer the residue to an alumina microcolumn fabricated as follows:

9.7.1 Cut off the top section of a 10 ml disposable Pyrex pipette at the 4.0 ml mark and insert a plug of silanized glass wool into the tip of the lower portion of the pipette.

9.7.2 Add 2.8g of Woelm basic alumina (previously activated at 600° C overnight and then cooled to room temperature in a desiccator just prior to use).

9.7.3 Transfer sample extract with a small volume of methylene chloride.

9.8 Elute the microcolumn with 10 ml of 3% methylene chloride-in-hexane followed by 15 ml of 20% methylene chloride-in-hexane and discard these effluents. Elute the column with 15 ml of 50% methylene chloride-in-hexane and concentrate this effluent (55° C water bath, stream of prepurified nitrogen) to about 0.3-0.5 ml.

9.9 Quantitatively transfer the residue (using methylene chloride to rinse the container) to a silanized Reacti-Vial (Pierce Chemical Co.). Evaporate, using a stream of prepurified nitrogen, almost to dryness, rinse the walls of the vessel with approximately 0.5 ml methylene chloride, evaporate just to dryness, and tightly cap the vial. Store the vial at 5° C until analysis, at which time the sample is reconstituted by the addition of tridecane.

9.10 Approximately 1 hour before GC-MS (HRGC-LRMS) analysis, dilute the residue in the micro-reaction vessel with an appropriate quantity of tridecane. Gently swirl the tridecane on the lower portion of the vessel to ensure dissolution of the CDDs and CDFs. Analyze a sample by GC/EC to provide insight into the complexity of the problem, and to determine the manner in which the mass spectrometer should be used. Inject an appropriate aliquot of the sample into the GC-MS instrument, using a syringe.

9.11 If, upon preliminary GC-MS analysis, the sample appears to contain interfering substances which obscure the analyses for CDDs and CDFs, high performance liquid chromatographic (HPLC) cleanup of the extract is accomplished, prior to further GC-MS analysis.

10. HPLC Cleanup Procedure¹

10.1 Place approximately 2 ml of hexane in a 50 ml flint glass sample bottle fitted with a Teflon-lined cap.

10.2 At the appropriate retention time, position sample bottle to collect the required fraction.

10.3 Add 2 ml of 5% (w/v) sodium carbonate to the sample fraction collected and shake for one minute.

10.4 Quantitatively remove the hexane layer (top layer) and transfer to a micro-reaction vessel.

10.5 Concentrate the fraction to dryness and retain for further analysis.

11. GC/MS Analysis

11.1 The following column conditions are recommended: Glass capillary column conditions: SP-2250 coated on a 30 m long x 0.25 mm I.D. glass column (Supelco No. 2-3714, or equivalent) with helium carrier gas at 30 cm/sec linear velocity, run splitless. Column temperature is 210° C. Under these conditions the retention time for TCDDs is about 9.5 minutes. Calibrate the system daily with a minimum, three injections of standard mixtures.

11.2 Calculate response factors for standards relative to ³⁷Cl-TCDD/F (see Section 12).

11.3 Analyze samples with selected ion monitoring of at least two ions from Table 3.

¹ For cleanup see also method #8320 or #8330, SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (1982).

Proof of the presence of CDD or CDF exists if the following conditions are met:

11.3.1 The retention time of the peak in the sample must match that in the standard, within the performance specifications of the analytical system.

11.3.2 The ratio of ions must agree within 10% with that of the standard.

11.3.3 The retention time of the peak maximum for the ions of interest must exactly match that of the peak.

11.4 Quantitate the CDD and CDF peaks from the response relative to the ³⁷Cl-TCDD/F internal standards. Recovery of the internal standard should be greater than 50 percent.

11.5 If a response is obtained for the appropriate set of ions, but is outside the expected ratio, a co-eluting impurity may be suspected. In this case, another set of ions characteristic of the CDD/CDF molecules should be analyzed. For TCDD a good choice of ions is m/e 257 and m/e 259. For TCDF a good choice of ions is m/e 241 and 243. These ions are useful in characterizing the molecular structure to TCDD or TCDF. For analysis of TCDD good analytical technique would require using all four ions, m/e 257, 320, 322, and 328, to verify detection and signal to noise ratio of 5 to 1. Suspected impurities such as DDE, DDD, or PCB residues can be confirmed by checking for their major fragments. These materials can be removed by the cleanup columns. Failure to meet criteria should be explained in the report, or the sample reanalyzed.

11.6 If broad background interference restricts the sensitivity of the GC/MS analysis, the analyst should employ cleanup procedures and reanalyze by GC/MS. See section 10.0.

11.7 In those circumstances where these procedures do not yield a definitive conclusion, the use of high resolution mass spectrometry is suggested.

12. Calculations

12.1 Determine the concentration of individual compounds according to the formula:

$$\text{Concentration, } \mu\text{g/g} = \frac{A \times A_s}{C \times A_{is} \times R_f}$$

where:

A = μg of internal standard added to the sample²

C = gm of sample extracted

A_s = area of characteristic ion of the compound being quantified.

A_{is} = area of characteristic ion of the internal standard

R_f = response factor³

²The proper amount of standard to be used is determined from the calibration curve (See Section 6.0).

³If standards for PCDDs/Fs and HxCDDs/Fs are not available, response factors for ions derived from these congeners are calculated relative to ³⁷Cl-TCDD/F. The analyst may use response factors for 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PeCDD, or 1,2,3,4,7,8-HxCDD for quantitation of TCDDs/Fs, PeCDDs/Fs and HxCDDs/Fs, respectively. Implicit in this requirement is the assumption that the same response is obtained from PCDDs/Fs containing the same numbers of chlorine atoms.

Response factors are calculated using data obtained from the analysis of standards according to the formula:

$$R_f = \frac{A_s \times C_{is}}{A_{is} \times C_s}$$

where:

C_{is} = concentration of the internal standard
C_s = concentration of the standard compound

12.2 Report results in micrograms per gram without correction for recovery data. When duplicate and spiked samples are analyzed, all data obtained should be reported.

12.3 Accuracy and Precision. No data are available at this time.

TABLE 1.—GAS CHROMATOGRAPHY OF TCDD

Column	Retention time (min.)	Detection limit (μg/kg) ¹
Glass capillary.....	9.5	0.003

TABLE 3.—LIST OF ACCURATE MASSES MONITORED USING GC SELECTED-ION MONITORING, LOW RESOLUTION, MASS SPECTROMETRY FOR SIMULTANEOUS DETERMINATION OF TETRA-, PENTA-, AND HEXACHLORINATED DIBENZO-*p*-DIOXINS AND DIBENZOFURANS

Class of chlorinated dibenzodioxin or dibenzofuran	Number of chlorine substituents (x)	Monitored m/z for dibenzodioxins C ₁₂ H _{8-x} O ₂	Monitored m/z for dibenzofurans C ₁₂ H _{6-x} OCl _x	Approximate theoretical ratio expected on basis of isotopic abundance
Tetra.....	4	¹ 319.897	¹ 303.902	0.74
		321.894	305.903	1.00
		² 327.885	² 311.894
		³ 258.933	0.21
		³ 258.930	0.20
Penta.....	5	¹ 353.858	¹ 337.863	0.57
		355.855	339.860	1.00
Hexa.....	6	389.816	373.821	1.00
		391.813	375.818	0.87

¹ Molecular ion peak.
² Cl-³⁷ labelled standard peaks.
³ Ions which can be monitored in TCDD analyses for confirmation purposes.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

12. The authority citation for Part 264 reads as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6925).

13. In Subpart I of Part 264, the introductory text in paragraph (c) is revised and a new paragraph (d) is added to § 264.175:

§ 264.175 Containment.

(c) Storage areas that store containers holding only wastes that do not contain

¹ Detection limit for liquid samples is 0.003 μg/l. This is calculated from the minimum detectable GC response being equal to five times the GC background noise assuming a 1 ml effective final volume of the 1 liter sample extract, and a GC injection of 5 microliters. Detection levels apply to both electron capture and GC/MS detection. For further details see 44 FR 69526 (December 3, 1979).

TABLE 2.—DFTPP KEY IONS AND ION ABUNDANCE CRITERIA¹

Mass	Ion abundance criteria
51	30-60% of mass 198.
68	Less than 2% of mass 69.
70	Less than 2% of mass 69.
127	40-60% of mass 198.
197	Less than 1% of mass 198.
198	Base peak, 100% relative abundance.
199	5-9% of mass 198.
275	10-30% of mass 198.
365	Greater than 1% of mass 198.
441	Present but less than mass 443.
442	Greater than 40% of mass 198.
443	17-23% of mass 442.

¹ J. W. Eichelberger, L.E. Harris, and W.L. Budde, 1975. Reference compound to calibrate ion abundance measurement in gas chromatography-mass spectrometry. Analytical Chemistry 47:995.

free liquids need not have a containment system defined by paragraph (b) of this section, except as provided by paragraph (d) of this section or provided that:

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by paragraph (b) of this section:

- (1) FO20, FO21, FO22, FO23, FO26, and FO27.
- (2) [Reserved]

14. In Subpart J of Part 264, amend § 264.194 by redesignating paragraph (c) as paragraph (c)(1), and adding a new paragraph (c)(2):

§ 264.194 Inspections.

(c)(1) * * *

(2) For EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27, the contingency plan must also include the procedures for responding to a spill or leak of these wastes from tanks into the containment system. These procedures shall include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

15. In Subpart J of Part 264, add the following § 264.200:

§ 264.200 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) In addition to the other requirements of Subpart J, the following requirements apply to tanks storing or treating hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(1) Tanks must have systems designed and operated to detect and adequately contain spills or leaks. The design and operation of any containment system must reflect consideration of all relevant factors, including:

- (i) Capacity of the tank;
- (ii) Volumes and characteristics of wastes stored or treated in the tank;
- (iii) Method of collection of spills or leaks;
- (iv) The design and construction materials of the tank and containment system; and
- (v) The need to prevent precipitation and run-on from entering into the system.

(2) As part of the contingency plan required by Subpart D of Part 264, the owner or operator must specify such procedures for responding to a spill or leak from the tank into the containment system as may be necessary to protect human health and the environment. These procedures shall include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

16. In Subpart K of Part 264, add the following section § 264.231:

§ 264.231 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for surface impoundments managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

17. In Subpart L of Part 264, add the following section § 264.259:

§ 264.259 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in waste piles that are not enclosed (as defined in §264.250(c)) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

18. In Subpart M of Part 264, add the following section § 264.283:

§ 264.283 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26 and, FO27 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

19. In Subpart N of Part 264, add the following section § 264.317:

§ 264.317 Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 must not be placed in a landfills unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Regional Administrator pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The Regional Administrator may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

20. In Subpart O of Part 264, amend § 264.343 by revising paragraph (a) and redesignating paragraph (a) as paragraph (a)(1), and adding a new paragraph (a)(2) to read as follows:

§ 264.343 Performance standards.

(a)(1) Except as provided in paragraph (a)(2), an incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under § 264.342) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE = \frac{(W_{in} - W_{out})}{W_{in}} \times 100\%$$

where:

W_{in} = mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator and

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) An incinerator burning hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under § 264.342) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in § 264.343(a)(1). In addition, the owner or operator of the incinerator must notify the Regional Administrator of his intent to incinerate hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27.

PART 265—INTERIM STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

21. The authority citation for Part 265 reads as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6925).

22. § 265.1 is amended by adding paragraph (d)

§ 265.1 Purpose, scope, and applicability.

(d) The following hazardous wastes must not be managed at facilities subject to regulation under this Part.

(1) EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, or FO27 unless:

(i) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) The waste is stored in tanks or containers;

(iii) The waste is stored or treated in waste piles that meet the requirements of § 264.250(c) as well as all other applicable requirements of Subpart L of this Part.

(iv) The waste is burned in incinerators that are certified pursuant to the standards and procedures in § 265.352; or

(v) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in § 265.383.

23. In Subpart O of Part 265, add the following § 265.352:

§ 265.352 Interim Status Incinerators Burning Particular Hazardous Wastes.

(a) Owners or operators of incinerators subject to this Subpart may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Subpart O of Part 264 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify an incinerator:

(1) The owner or operator will submit an application to the Assistant Administrator for Solid Waste and Emergency Response containing applicable information in §§ 270.19 and 270.62 demonstrating that the incinerator can meet the performance

standards in Subpart O of Part 264 when they burn these wastes.

(2) The Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the incinerator can meet the performance standards in Subpart O of Part 264. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The Assistant Administrator for Solid Waste and Emergency Response also may hold a public hearing upon request or at his discretion.

(3) After the close of the public comment period, the Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the incinerator.

24. In Subpart P of Part 265, add the following § 265.383:

§ 265.383 Interim Status Thermal Treatment Devices Burning Particular Hazardous Waste.

(a) Owners or operators of thermal treatment devices subject to this Subpart may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Subpart O of Part 264 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

(1) The owner or operator will submit an application to the Assistant Administrator for Solid Waste and Emergency Response containing the applicable information in §§ 270.19 and 270.62 demonstrating that the thermal treatment unit can meet the performance standard in Subpart O of Part 264 when they burn these wastes.

(2) The Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in Subpart O of Part 264. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The Assistant Administrator for

Solid Waste and Emergency Response also may hold a public hearing upon request or at his discretion.

(3) After the close of the public comment period, the Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the thermal treatment unit.

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

25. The authority citation for Part 270 reads as follows:

Authority: Secs. 1006, 2002(a), 3005, 3007, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6925, 6927, and 6974).

26. In Subpart B of Part 270, paragraph (b)(7) of § 270.14 is revised to read as follows:

§ 270.14 Contents of Part B: General requirements.

(b) * * *
(7) A copy of the contingency plan required by Part 264, Subpart D. Note: Include, where applicable, as part of the contingency plan, specific requirements in §§ 264.227, 264.255, and 264.200.

27. In Subpart B of Part 270, § 270.16 is amended by adding paragraph (g):

§ 270.16 Specific Part B information requirements for tanks.

(g) Where applicable, a description of the containment and detection systems to demonstrate compliance with § 264.200(a) must include at least the following:

- (1) Drawings and a description of the basic design parameters, dimensions, and materials of construction of the containment system.
 - (2) Capacity of the containment system relative to the design capacity of the tank(s) within the system.
 - (3) Description of the system to detect leaks and spills, and how precipitation and run-on will be prevented from entering into the detection system.
28. In Subpart B of Part 270, § 270.17 is amended by adding paragraph (j):

§ 270.17 Specific Part B information requirements for surface impoundments.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.231. This submission must address the following items as specified in § 264.231:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

29. In Subpart B of Part 270, § 270.18 is amended by adding paragraph (j):

§ 270.18 Specific Part B information requirements for waste piles.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed (as defined in § 264.250(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.259. This submission must address the following items as specified in § 264.259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

30. In Subpart B of Part 270, § 270.20 is amended by adding paragraph (i):

§ 270.20 Specific Part B information requirements for land treatment facilities.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing

how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.283. This submission must address the following items as specified in § 264.283:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

31. In Subpart B of Part 270, § 270.21 is amended by adding paragraph (j):

§ 270.21 Specific Part B information requirements for landfills.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.317. This submission must address the following items as specified in § 264.317:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

PART 775—STORAGE AND DISPOSAL OF WASTE MATERIAL (REMOVED)

32. The authority citation for Part 775 reads as follows:

Authority: Sec. 6 of the Toxic Substances Control Act (TSCA) Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605).

33. Part 775 is removed.

[FR Doc. 85-604 Filed 1-11-85; 3:45 am]
BILLING CODE 6560-60-M

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for Part 260 reads as follows:

Authority: Secs. 1008, 2002(a), 3001 through 3007, and 3010 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6905, 6912(a), 6921 through 6927, and 6930].

2. In § 260.30, paragraph (a) is revised to read as follows:

§ 260.30 Variances from classification as a solid waste.

(a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in § 261.1(c)(8) of this chapter):

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

3. The authority citation for Part 261 reads as follows:

Authority: Secs. 1008, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6905, 6912(a), 6921, and 6922].

4. Section 261.3 is amended by revising paragraph (c)(2) to read as follows:

§ 261.3 Definition of hazardous waste.

(c)
(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

5. Section 261.4 is amended by revising paragraph (a)(8) to read as follows:

§ 261.4 Exclusions.

(a)

(8) Pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

6. Section 261.5 is amended by revising the second sentence in paragraph (c) to read as follows:

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(c) Hazardous waste that is subject to the requirements of § 261.6 (b) and (c) and Subparts C, D, and F of Part 266 is included in the quantity determination of this section and is subject to the requirements of this section.

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

7. The authority citation for Part 266 reads as follows:

Authority: Secs. 1008, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6905, 6912(a), and 6924].

8. In § 266.30, paragraphs (b) (3) and (4) are added to read as follows:

§ 266.30 Applicability.

(b)

(3) Hazardous waste fuels that are exempt from the labeling requirements of RCRA Section 3004(r).

(4) Coke from the iron and steel industry that contains hazardous waste from the iron and steel production process.

9. Section 266.33 is amended by revising paragraph (b) to read as follows:

§ 266.33 Standards applicable to transporters of hazardous waste fuel.

(b) Transporters of hazardous waste fuel are not presently subject to regulation when they transport hazardous wastes fuel from marketers, who are not also the generators of the waste, to burners or other marketers.

Federal Register

Tuesday
April 23, 1985

Part II

Environmental Protection Agency

40 CFR Part 265

**Hazardous Waste Management System;
Interim Status Standards for Owners and
Operators of Hazardous Waste
Treatment, Storage, and Disposal
Facilities; Final Rule**

N. of Title 40 of the Code of Federal Regulations are amended as follows:

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

1. The authority citation for Part 265 continues to read as follows:

Authority: Secs. 1006, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), and 6924).

2. In 40 CFR Part 265, Subpart K, §§ 265.222 and 265.229 are revised to read as follows:

§ 265.222 General operating requirements.

(a) A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overflowing, wave action, or a storm. Except as provided in paragraph (b) of this section, there must be at least 60 centimeters (two feet) of freeboard.

(b) A freeboard level less than 60 centimeters (two feet) may be maintained if the owner or operator obtains certification by a qualified engineer that alternate design features or operating plans will, to the best of his knowledge and opinion, prevent overtopping of the dike. The certification, along with a written identification of alternate design features or operating plans preventing overtopping, must be maintained at the facility.

(Approved by the Office of Management and Budget under the control number 2050-0007)

§ 265.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this chapter; and

(2) Section 265.17(b) is complied with; or

(b)(1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

(2) The owner or operator obtains a certification from a qualified chemist or engineer that, to the best of his knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

(3) The certification and the basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

(Approved by the Office of Management and Budget under the control number 2050-0007)

3. In 40 CFR Part 265, Subpart M, § 265.272 is amended by revising paragraph (a) to read as follows:

§ 265.272 General operating requirements.

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

4. In 40 CFR Part 265, Subpart M, §§ 265.310 and 265.315 are revised to read as follows:

§ 265.310 Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all post-closure requirements contained in §§ 265.117-265.120 including maintenance and monitoring throughout the post-closure care period. The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part;

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(4) Protect and maintain surveyed benchmarks used in complying with § 265.309.

§ 265.315 Special requirements for containers.

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

[FR Doc. 85-9600 Filed 4-22-85; 8:45 am]

BILLING CODE 6560-50-M

Final Rule

Tuesday
April 30, 1985

Part III

**Environmental
Protection Agency**

**40 CFR Parts 260, 264, 265, and 270
Hazardous Waste Management System;
Standards for Owners and Operators of
Hazardous Waste Treatment, Storage,
and Disposal Facilities; Final Rule**

and Budget (OMB) under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501-3520 and have been assigned the following control numbers: 2050-0012 and 2050-0013.

VIII. List of Subjects

40 CFR Part 260

Administrative practice and procedure, Hazardous materials, Waste treatment and disposal.

40 CFR Part 264

Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Waste treatment and disposal, Water supply.

40 CFR Part 265

Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Waste treatment and disposal, Water supply.

40 CFR Part 270

Administrative practice and procedure, Reporting and recordkeeping requirements, Hazardous materials, Waste treatment and disposal, Water pollution control, Water supply, Intergovernmental relations, Penalties, Confidential business information, Incorporation by reference.

Dated: April 22, 1985.

Lee M. Thomas,
Administrator.

For the reasons set forth in the preamble, 40 CFR Parts 260, 264, 265 and 270 are amended as set forth below.

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for Part 260 reads as follows:

Authority: Secs. 1006, 2002(a), 3001 through 3007, 3010, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 as amended, (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930 and 6974).

2. Section 260.11 is amended by revising the fourth reference in paragraph (a) to read as follows:

§ 260.11 References.

(a) * * *

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 [Second Edition, 1982 as amended by Update I (April, 1984), and Update II (April, 1985)]. The second edition of SW-846 and Updates I and II are available from the Superintendent of Documents, U.S. Government Printing Office,

Washington, D.C. 20401, (202) 783-3228, on a subscription basis.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

3. The authority citation for Part 264 reads as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6925).

4. Section 264.13 is amended by revising paragraph (b)(6) and by adding an OMB control number to the end of the section to read as follows:

§ 264.13 General waste analysis.

* * * * *

(b) * * *

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 264.17, 264.314, and 264.341.

* * * * *

(Information collection requirements in paragraph (b)(6) approved by OMB under control number 2050-0012)

5. Section 264.73 is amended by revising paragraph (b)(3) and by adding an OMB control number to the end of the section to read as follows:

§ 264.73 Operating record.

* * * * *

(b) * * *

(3) Records and results of waste analyses performed as specified in §§ 264.13, 264.17, 264.314, and 264.341;

* * * * *

(Information collection requirements in paragraph (b)(3) approved by OMB under control number 2050-0013)

6. Section 264.314 is amended by revising its title and by adding a new paragraph (c) to read as follows:

§ 264.314 Special requirements for bulk and containerized liquids.

* * * * *

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." [EPA Publication No. SW-846].

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

7. The authority citation for Part 265 reads as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3005 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6908, 6912(a), 6924, and 6925).

8. Section 265.13 is amended by revising paragraph (b)(6) and by adding an OMB control number to the end of the section to read as follows:

§ 265.13 General waste analysis.

* * * * *

(b) * * *

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 265.193, 265.225, 265.252, 265.273, 265.314, 265.345, 265.375, and 265.402.

* * * * *

(Information collection requirements approved by OMB under control number 2050-0012)

9. Section 265.73 is amended by revising paragraph (b)(3) and by adding an OMB control number to the end of the section to read as follows:

§ 265.73 Operating record.

* * * * *

(b) * * *

(3) Records and results of waste analyses and trial tests performed as specified in §§ 265.13, 265.193, 265.225, 265.252, 265.273, 265.314, 265.341, 265.375, and 265.402;

* * * * *

(Information collection requirements approved by OMB under control number 2050-0013)

10. Section 265.302 as amended by revising the comment to read as follows:

§ 265.302 General operating requirements.

* * * * *

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.312, 265.313, and 265.314. As required by § 265.73, the owner or operator must place the results of these analyses in the operating record of the facility].

11. Section 265.314 is amended by revising its title and by adding a new paragraph (d) to read as follows:

§ 265.314 Special Requirements for Bulk and Containerized Liquids.

* * * * *

(d) To demonstrate the absence or presence of free liquids in either a

containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." [EPA Publication No. SW-846].

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

12. The authority citation for Part 270 reads as follows:

Authority: Secs. 1006, 2002, 3005, 3007, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912, 6925, 6927, and 6974).

13. Section 270.6 is amended by revising the first reference in paragraph (a) to read as follows:

§ 270.6 References

(a) * * *
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods",

EPA Publication SW-846 [Second Edition, 1982 as amended by Update I (April, 1984) and Update II April, 1985]. The second edition of SW-846 and Updates I and II are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, (202) 783-3238, on a subscription basis.

[FR Doc. 85-10278 Filed 4-29-85; 8:45 am]
BILLING CODE 6560-60-M

Additional Modifications Proposed by DEQ
to Hazardous Waste Management Regulations
at the June 25, 1985 Public Hearing

Attachment VII
Agenda Item No. M
7/19/85 EQC Meeting

<u>Rule Affected</u>	<u>Page</u>	<u>Proposed Modification</u>	<u>Discussion</u>
340-101-025	5	<p>(1) The provisions of 40 CFR <u>261.5(b) and 261.5(g)</u> are deleted and replaced with sections <u>(2), (3) and (4)</u> of this rule.</p> <p><u>(2) Except for those wastes identified in 40 CFR 261.5(e) and (f), a small quantity generator's hazardous wastes are subject to regulation under Divisions 100 to 108 only to the extent of generator compliance with the requirements of OAR 340-101-025(3) and the owner or operator of a treatment or storage facility's compliance with the requirements of OAR 340-101-025(4).</u></p> <p>[(2)] <u>(3) In order . . . generator must:</u></p> <p><u>(4) The owner or operator of an off-site facility that treats or stores hazardous waste obtained only from small quantity generators in amounts greater than 200 pounds but less than 2000 pounds of hazardous waste in a calendar month must obtain a letter of authorization from the Department as required by rule 340-105-100. Owners or operators of off-site facilities that treat or store more than 2000 pounds per calendar month are fully subject to regulation under Divisions 100 to 108.</u></p>	<p>Existing rule 340-101-005(2) and (10) contains requirements applicable to off-site storage and treatment of a small quantity generator's waste. These provisions were inadvertently omitted from proposed 340-101-025. Therefore, the proposed modification is necessary to maintain provisions of the existing rule.</p>
340-101-040 Additional hazardous wastes.	8	<p>(1) The residues identified in sections (2) and (3) of this rule are hazardous wastes <u>and are added to and made a part of the list of hazardous wastes in 40 CFR 261.33.</u></p>	<p>These wastes are listed hazardous wastes in current 340-101-033. The proposed modification preserves the classification of these wastes as listed hazardous wastes.</p>
340-101-045 Pesticides.	9	<p>(2) A pesticide residue . . . has the Hazardous Waste Number of X001 <u>and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.</u></p>	<p>These wastes are listed hazardous wastes in current 340-101-034. The proposed modification preserves their classification as listed hazardous wastes.</p>

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<u>Rule Affected</u>	<u>Page</u>	<u>Proposed Modification</u>	<u>Discussion</u>
340-102-035 Accumulation time.	5	In addition to the requirements of 40 CFR 262.34, a generator may accumulate hazardous waste on-site for 90 days or less without a permit provided that[,]: (1) [i]If storing in excess of 100 containers, the waste is placed in a storage unit that meets the requirements of 40 CFR 264.175[.]; and <u>(2) If storing in tanks, the tanks unit complies with rule 340-104-095(2).</u>	Existing 340-102-034(1)(b) requires compliance with tank standards of Subdivision J of Division 104. The proposed modification is necessary to maintain this requirement.
340-100-050 Petitions to amend Division 101 to exclude a waste produced at a particular facility.	9	(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.[21]22.	Reference to 40 CFR 260.21 is incorrect. The correct reference is 260.22.
340-102-015 Meanings.	2	(1) "Administrator" means the Department, <u>except that when used in 40 CFR 262.50 it shall mean the Administrator of the U.S. Environmental Protection Agency.</u>	40 CFR 262.50 requires notification to EPA respecting international shipments of hazardous waste. States may not receive this notification in lieu of EPA. Therefore, the term "Administrator" must mean the EPA Administrator, and not DEQ, when used in 262.50.
340-105-075 Conditions applicable to all permits.	10	(4)(a) The provisions of 40 CFR 270.30(1)(6)(i) [but not] <u>preceding</u> 270.30(1)(6)(i)(A) and (B) . . .	Editorial change to enhance clarity.
340-105-095 Emergency permits.	12	(2) May be suspended or renewal refused by the Department at any time without prior hearing if it finds a serious danger to the public health <u>[or], safety, or the environment</u> and sets forth specific reasons for such findings;	Proposed modification is necessary to be equivalent to the federal regulation (40 CFR 270.61(b)(4)).

MEMORANDUM

To: Environmental Quality Commission
From: Alan Goodman, Hearings Officer
Subject: Hearing Officer's Report

Summary of Public Testimony on Proposed Adoption of
Amendments to Hazardous Waste Management Rules,
OAR Chapter 340, Divisions 100-108

Pursuant to notice, a hearing was conducted on June 25, 1985, in Room 1400 of the Department's offices in Portland, Oregon, to receive testimony on proposed amendments to the Department's hazardous waste management rules. The hearing was authorized by the Environmental Quality Commission on June 7, 1985.

Twenty-six persons attended the hearing. One person presented oral and written testimony.

The Department opened the hearing by introducing a document titled "Additional Modifications Proposed by DEQ to Hazardous Waste Management Regulations at the June 25, 1985 Public Meeting." This document contains additional rule modifications which correct technical errors and omissions made in drafting the proposed rules.

Mr. James Brown of Tektronix, Inc., the sole commenter at the hearing, requested that DEQ leave the hearing record open for an additional fifteen days in order to allow sufficient time to prepare meaningful comments on the proposed rules. Mr. Brown's request was also made on behalf of Associated Oregon Industries. The Hearings Officer discussed the potential implications this action would have on the Commission's ability to take final action prior to September 1, 1985 (the planned date for submittal of Oregon's revised application for Final Authorization). Following discussion, and conference with DEQ staff, the Hearings Officer agreed to extend the deadline for receipt of public comment to noon, July 10, 1985.

Copies of Mr. Brown's written testimony and previously submitted written testimony from Dr. Emile Pierron of Advanced Power Technology and Mr. Gary Cramer of Oregon Technical Products are attached.

ZC2217.8
Attachments



Tektronix, Inc.
Tektronix Industrial Park
P.O. Box 500
Beaverton, Oregon 97077

Phone: (503) 627-7111
TWX: 910-467-8708
Telex: 151754

25 June 1985

Mr. Alan Goodman
DEQ
Hazardous and Solid Waste Division
PO Box 1760
Portland, Oregon 97207

Re: Proposed Amendments to OAR 340-100 thru 340-108

Dear Mr. Goodman,

Tektronix recieved the DEQ's announcement of the proposed amendments to OAR 340-100 thru 340-108 on or about 6/12/85. Due to the ongoing activities with the Oregon Legislature, which just concluded on 6/21/85; as well as numerous recently issued rule proposals by the EPA we have been unable to complete an adequate review of the DEQ proposal.

In addition, the proposed changes are written in a manner which is atypical of the normal format for Oregon Administrative Rule amendments, revisions, deletions and/or additions (ie: deletions are not [bracketed] and additions are not underlined); making the actual changes to the text of OAR 340-100 thru 340-108 difficult to follow and time consuming to review.

On behalf of Tektronix, we are requesting the DEQ to leave the public record open for an additional 15 days in order for us to prepare meaningful comments on this proposal.

Lastly, I have been requested by Mr. Thomas C. Donaca, General Counsel, Associated Oregon Industries (AOI) to ask the DEQ on behalf of AOI to leave the record open for 15 days to allow AOI to prepare its comments. Mr. Donaca is out of town most of this week and unable to make this request on his own behalf. He also has been unable to review this proposal for many of the same reason I have previously noted, most particularly ongoing activity with the Oregon Legislature.

Thank you for this opportunity to comment and hopefully for extending the public comment period.

Sincerely,

James C. Brown
Environmental Compliance Coordinator

RECEIVED
JUN 21 1985

otp

OREGON TECHNICAL PRODUCTS

P.O. BOX 1209 . GRANTS PASS, OREGON 97526-0306 . PHONE(503)479-3331

June 19, 1985

DEQ
Hazardous and Solid Waste Division
P.O. Box 1760
Portland, Oregon 97207

Attention: Alan Goodman

Gentlemen:

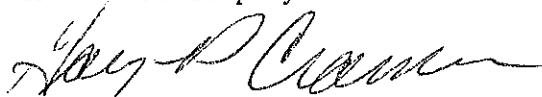
I have recently reviewed the proposed changes to the hazardous waste rules. I find them necessary and basically attainable. I would, however, like to comment on two concerns that I have observed.

1. As a small quantity generator, the 2,000 pound limit on storage quantity can be unnecessarily costly because most transporters won't pick up materials unless it is cost effective for them. This could force the small quantity generators to accumulate over 2,000 pounds and possibly incur more hazardous control costs. Increasing the storage limit may prove less costly.
2. Your proposal to adopt federal rules by reference rather than restating verbatim seems to be a very frugal way to promulgate these rules. However, it has been my experience, as well as that of some of my colleagues, that the State Division rules by themselves can be difficult to correlate and understand. If the rules were changed so correlation was required between both the State and Federal documents, it would seem likely that future correlation and understanding would be further complicated. My personal preference would be to operate under one set of documented rules, rather than two - State first, Federal second - but not from one to the other.

In closing, I would like to thank the D.E.Q. for giving generators the opportunity to comment on the proposed amendments to the hazardous waste rules.

Very truly yours,

OREGON TECHNICAL PRODUCTS
A Textron Company



Gary P. Cramer
Engineering Services Manager

sm

100

Advanced Power Technology, Inc.

15 N.W. Colorado Avenue, Bend, Oregon 97701
(503) 382-8028, 8029



June 19, 1985

Hazardous & Solid Waste Division
Dept. of Environmental Quality

RECEIVED
JUN 24 1985

Oregon Dept. of Environmental
Quality
Hazardous & Solid Waste Division
P.O. Box 1760
Portland, Oregon 97207

ATTN: Mr. Alan Goodman

Dear Mr. Goodman:

Regarding solicited comments in reference to amending OAR Chapter 340, Divisions 100-106 and 108, we are in favor of adopting Division 107 and including the recent federal requirements.

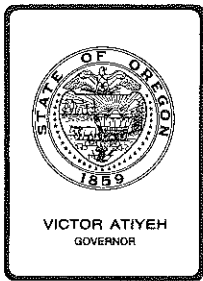
We believe that the State regulations should be at least comparable to the Federal requirements. Furthermore, we recommend that whenever possible, the Oregon regulations which are identical to the Federal regulations be adopted by reference rather than be restated verbatim.

Sincerely,

Dr. Emile D. Pierron, V.P.
Director of Quality Assurance
& Reliability

EDP/k

cc: Ted Hollinger, President
A.P.T., Inc.



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Amendment to Agenda Item M, July 19, 1985, EQC Meeting

Proposed Adoption of Amendments to Hazardous Waste Management
Rules, OAR Chapter 340, Divisions 100-108

At the public hearing on the proposed rules held on June 25, 1985, Associated Oregon Industries (AOI) and Tektronix requested the Department to hold the comment period open for an additional ten days to allow further time to review the proposed rules. The Hearings Officer granted this request and extended the comment period until noon, July 10. The appended comments from AOI were received by the Department on July 10. The Response to Comments is delayed as a result.

Attached are:

1. Attachment IX: Response to Comments from Associated Oregon Industries, July 9, 1985 (AOI comments are included).
2. Attachment X: Proposed Rules and Rule Amendments to OAR Chapter 340, Divisions 100-108.

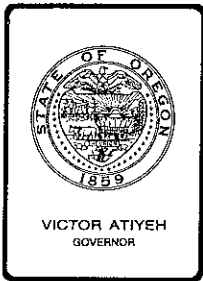
Attachment X replaces proposed rules in Attachment IV and in its present form includes responses to AOI comments.

Director's Recommendation

Based upon the Department's analysis of the testimony received following the June 10, 1985 notice of opportunity for public comment, it is recommended that the Commission adopt Attachment X: Proposed Rules and Rule Amendments to OAR Chapter 340, Divisions 100-108.

Alan Goodman:cs
229-5254
7/16/85

Fred Hansen



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Amendment to Agenda Item M, July 19, 1985, EQC Meeting

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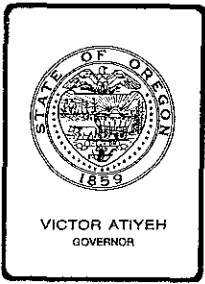
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Alan Goodman:cs
229-5254
7/16/85

Fred Hansen



Environmental Quality Commission

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522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

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Alan Goodman:cs
229-5254
7/16/85

Fred Hansen

RESPONSE TO COMMENTS

Regarding the Amendment of Hazardous Waste Rules
OAR Chapter 340, Divisions 100-108

The following is a response to the comments submitted by Associated Oregon Industries (AOI) on July 9, 1985, on the proposed adoption of amendments to hazardous waste rules, OAR Chapter 340, Divisions 100-108. These comments are appended to this Response and because of their length, are referenced rather than included below.

At the public hearing on the proposed rules held on June 25, 1985, AOI and Tektronix requested the Department to hold the comment period open for an additional ten days to allow further time to review the proposed rules. The Hearings Officer granted this request and extended the comment period until noon, July 10. The appended comments from AOI were received by the Department on July 10. This Response to Comments is delayed as a result.

Comment on Administrative Rule Numbering System

Commenter recommends that rules in Divisions 100 to 107 be numbered to correspond with the federal rules which they modify or replace. (The federal rules are numbered sequentially.)

We agree with commenter's suggestion that "sequentially" numbering the rules would allow for easier implementation by the regulated community. The Secretary of State's office previously advised the Department that sequential numbering would not be allowed. We have discussed this matter further with the Secretary of State and have received their assurance to allow us to sequentially number the hazardous waste rules.

Consequently, we have revised the rule numbers to correspond with the numbers of the federal rules which the OARs modify or replace.

Comment on the Need for Special Hazardous Waste Rules

Commenter recommends that the EQC eliminate those portions of the Oregon hazardous waste regulations which are not required by federal rules, unless otherwise required by Oregon law. Commenter's reasons for this recommendation include the added complexity and administrative burden placed on the regulated community, potential preemption of their need by

future federal hazardous waste rulemaking as a result of the 1984 RCRA Amendments, and the lack of federal funding and recognition for the "Oregon" portion of the rules.

The Department does not believe a fallback to the basic federal program is justified or appropriate. We consider the federal hazardous waste regulations to constitute a minimum level of acceptable waste management for hazardous wastes. Under the Resource Conservation and Recovery Act, states are allowed to set more stringent requirements on hazardous waste management. The Department, in its development of the existing state hazardous waste rules, made a deliberate decision to supplement the federal rules where it believed controls were necessary to provide for public health and environmental protection. In some of these program areas, EPA purposely delayed rulemaking due to resource constraints. It is significant to note that even EPA acknowledges there is inadequate regulatory control in some aspects of the program and consequently the federal program is being modified to address these additional areas, such as small quantity generator regulation, secondary containment for tanks, etc. DEQ believes the existing state hazardous waste rules contain requirements necessary to protect the public and the environment from the adverse effects of improper waste management. The rules are justified and are appropriate to the circumstances they address.

Notwithstanding the above, the Department is sensitive to the need for consistency between state and federal rules. We would expect to limit any future additional state requirements to those either required by the federal program to maintain authorization or necessary to provide public health and environmental protection.

Comment I.A. - Proposed Rule 340-100-005

Commenter questions the need for a statement of purpose in the hazardous waste rules.

The Department believes that inclusion of a statement of purpose for its hazardous waste management rules is appropriate, notwithstanding the absence of such in the enabling statute. Therefore, we propose to keep the statement of purpose.

However, we agree with commenter's suggestion that any statement of purpose included now should identify the relationship between the OARs and the federal rules which are being adopted by reference. In response, we have added language in proposed 340-100-001, to indicate that Divisions 100 to 106 must be read in conjunction with 40 CFR in order to determine all applicable Oregon hazardous waste management requirements.

Comment I.B. - Consolidation of Rules Incorporating 40 CFR by Reference

In drafting the proposed rules distributed for public comment, the Department used an approach whereby components of federal rules (i.e., generator standards, transporter standards, etc.) were incorporated by

reference into respective OAR Divisions. As a result, each Division had a separate but similar rule adopting federal rules. This approach was chosen to ensure that if only one of the seven hazardous waste Divisions was read, for example, Division 102 by a generator, then regulated persons would be aware of the federal rules incorporation. In other words, the Department's intent was to ensure maximum visibility of the federal rules incorporation. However, an unintended consequence was the impression that only some of the federal rules were being adopted.

DEQ agrees with commenter's suggestion that consolidation of all of the incorporation-by-reference rules into one rule in Division 100 would clearly indicate that Oregon is adopting all of the federal regulations. Therefore, we have reworded the incorporation-by-reference rule (340-100-002) to adopt all of the federal hazardous waste regulations of 40 CFR Parts 260 to 266, 270 and 124. The Department remains concerned that each Division separately acknowledge the main incorporation by reference rule. Consequently, we have added, to rule -001 of each of Divisions 100 to 106 (purpose, scope and applicability), a subsection which references rule 340-100-002 and advises persons to consult 40 CFR in addition to the OAR Division to determine all applicable requirements.

Comment I.C. - Consolidation of Definitions

We agree with commenter's suggestion that consolidation of multiple definitions of the same terms would reduce duplication. Therefore, definitions for items such as Regional Administrator, Administrator, etc., in proposed 340-101-015(4), -102-015, -103-015, -104-025, -105-015 and -106-015 are now consolidated and placed in rule 340-100-010.

Current I.D. - DEQ Aquatic Toxicity Bioassay

The Department's existing rule 340-101-034 classifies certain residues as hazardous waste if the residues exhibit a specified aquatic toxicity (LC₅₀). In addition rule 340-100-010 defines aquatic LC₅₀ as ". . . that concentration of a substance which is expected in a specific time to kill 50% of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms)."

The Department proposed to modify both of these existing rules by requiring use of a specific test protocol developed by DEQ and a specific species of aquatic insect for the test. DEQ's intent is to standardize the measurement methods for aquatic toxicity, since the language in the current rule is non-specific, i.e., "an indigenous aquatic test population."

In response to commenter, first, we do not believe a basis has been established by commenter to delete the aquatic toxicity bioassay as a means for classifying certain pesticide residues as hazardous waste. To the contrary, we believe aquatic toxicity is an appropriate and relevant criterion for establishing special management standards for pesticide residues to ensure environmental protection. Furthermore, we do not believe that the absence of such a criterion in the federal rules at this time is a

substantive reason for DEQ to exclude an aquatic toxicity standard in the state's hazardous waste management program. In fact, we note that the absence of adequate toxicity criteria in EPA's rules has caused Congress in its passage of the RCRA Amendments in 1984, to direct EPA to develop more comprehensive toxicity criteria for hazardous waste classification.

Second, DEQ believes the test protocol it has developed for the aquatic toxicity bioassay is scientifically valid. The test is based upon standard bioassay techniques recommended by EPA. Selection of the aquatic insect Gammarus sp. as the test species is based upon its indigenous availability, ease of use in the laboratory, and high sensitivity of response to toxic substances. The Department has performed approximately one hundred aquatic toxicity bioassays using this bioassay protocol.

Commenter has also suggested that the regulated community has not had adequate opportunity to review the proposed bioassay procedures. The Department, through an oversight, did not include the written bioassay test procedures in its June 10, 1985 mailing of proposed rules to registered hazardous waste handlers and interested persons. However, we wish to note that the proposed rule 340-100-035 indicated that the DEQ Hazardous Waste Classification Aquatic Toxicity Bioassay procedure was available for inspection at the Portland office of DEQ.

Notwithstanding the above, we are prepared to extend the period for public comment. Therefore, the Department has deleted the bioassay procedure from the definition of Aquatic Toxicity LC₅₀. The definition in existing rules 340-100-010 will remain. The Department intends to solicit public comment on the proposed bioassay procedure at a future date.

Comment I.E. - Definition of "Constituent"

Commenter questions why the Department proposed to broaden the existing definition. Upon review of the proposed definition in 340-100-030(2)(e), we recognize that the change was unintended. Since our existing definition is equivalent to that found in 40 CFR 260.10, we propose to delete the definition of "constituent" altogether from Division 100 and use the federal definition.

Comment I.F. - Reference to Aquatic Toxicity Bioassay

Commenter objects to the Department's inclusion by reference of the DEQ Hazardous Waste Classification Aquatic Toxicity Bioassay. We have deleted the reference, consistent with our Response to Comment I.D. above.

Comment I.G. - Incorrect CFR Citation

The Department has corrected the reference to read "40 CFR 260.22."

Comment III.A. - Clarification of Terms "Residue" and "Solid Waste"

The Department acknowledges the redundancy of these terms as used in proposed 340-101-015(2) and (4)(b). We have removed the terms entirely

from 340-101-015, and have placed the definition of "residue" in rule 340-100-010. Since there is no need to use the term "solid waste," we have deleted its definition entirely. Additionally, the definition of "hazardous waste" in 340-100-010 now refers to 40 CFR 261.3, since the federal rule is used to define hazardous wastes. Finally, we have removed the Oregon statutory definition of hazardous waste from 340-101-015 since there is no direct link between it and 40 CFR 261.3.

Comment III.B. - (Withdrawn on 7/11/85)

Comment III.C. - (Withdrawn on 7/11/85)

Comment III.D. - Aquatic Toxicity Bioassay

We have deleted reference to the Department's Hazardous Waste Classification Aquatic Toxicity Bioassay, consistent with our Response to Comment I.D. above.

Comment III.E. - Reference to "Listed in Division 101"

The phrase ". . . listed elsewhere in Division 101" in proposed rule 340-101-045(2) is incorrect. The Department has corrected the phrase to read "or listed elsewhere in Subpart D of 40 CFR Part 261."

Comment IV.A. - Definition of Term "Solid Wastes"

The definition of this term in 340-101-015 has been deleted since it serves no useful purpose.

Comment V.A. - Deletion of 40 CFR 264.3

In proposed rule 340-104-020(2), the Department proposes to delete 40 CFR 264.3 because this rule speaks to "interim status" facilities, a term not used in DEQ's hazardous waste rules. To clarify that existing facilities must still comply with the requirements of 40 CFR Part 265, we have added new rule 340-104-003 which references compliance with Part 265 requirements.

Comment V.B. - Financial Assurance for Post-Closure

We agree with commenter's suggestion and have added language to rule 340-104-145 to amend 40 CFR 264.145.

Comment V.C. - Proposed Rule 340-104-070(4)

In response to commenter, the Department has added language in section (4) of this rule (now renumbered as 340-104-145) to clarify the applicability of 40 CFR 264.145(f)(11).

Comment V.D. - Conveyance of Property Deed for Disposal Facilities

Commenter argues that the scope of ORS 459.590 which requires deed conveyance to DEQ for disposal sites is restricted to "classical" off-site commercial disposal sites such as the Arlington site. Consequently, commenter suggests, owners/operators of surface impoundments or waste pile facilities which are not operated as a commercial facility (i.e., accept wastes from off-site generators) are not required to abide by ORS 459.590 upon closure. Commenter also suggests that provisions of SB 138, passed by the 1985 Oregon Legislative Assembly, have a bearing on the point in question.

The Department has not had an adequate opportunity to review in detail the pertinent statutory provisions, in particular SB 138, and confer with the Attorney General. Consequently, we have deleted the proposed rule 340-104-040, pending further research into this matter. We note that deletion of proposed rule 340-104-040 has no effect on the current statutory provision of 459.590 relating to deed conveyance.

Comment VI.A. - (Withdrawn 7/11/85)

Comment VI.B. - Permit Nontransferability

Commenter suggests clarification of rule 340-105-030 to indicate a new owner/operator of a facility may apply for and receive a permit. In fact, existing rules require new owners/operators to submit a permit application and obtain a permit. We have added language to this rule referencing the permit application requirement.

Comment VI.C. - Additional Information in Part B Applications

This requirement exists additionally in Division 106 and in federal rules. The Department believes that it is appropriate for a permit application to include "other information pertinent to the facility as may be requested by the Department." Therefore, we propose to keep this rule.

Comments VI.D, E, and F. - (Withdrawn 7/11/85)

Comment VII.A - Decision Schedules for Permit Actions

In response to commenter, we have added new section (3) to rule 340-106-004, which provides for DEQ development of decision schedules for permit actions, following receipt of a complete permit application.



ASSOCIATED OREGON INDUSTRIES

P.O. Box 1006

Tualatin, Oregon 97062

(503) 620-4407

Ivan Congleton, president

9 July 1985

Department of Environmental Quality
Hazardous and Solid Waste Division
PO Box 1760
Portland OR 97207

Hazardous & Solid Waste Division
Dept. of Environmental Quality

RECEIVED
JUL 10 1985

Attn: Alan Goodman

Re: **PROPOSED DEQ HAZARDOUS WASTE RULE CHANGES**

Dear Mr. Goodman,

The following are the comments on the proposed Oregon Hazardous Waste Regulations by Associated Oregon Industries. These comments are not intended nor should they delay the proposed adoption of Federal Hazardous Waste Rules. We appreciate the extension of the hearing to allow us this opportunity to comment.

Need for Special Hazardous Waste Rules

1. The 1984 RCRA amendments established 72 major statutory changes which significantly modify and limit existing hazardous waste management practices as well as expand the scope of Federal regulatory control.
2. The 4-29-85 Federal Register (50 FR 17784) illustrates the expanded rule making activities of the EPA, as a result of 1984 RCRA amendments. Please see the attached list.
3. In light of the changes caused by the 1984 amendments and the significantly increased Federal rule making activity, previous rationale and/or justification for additional "Oregon" hazardous waste rules is put in question.
4. Additional problems faced by the regulated community include:
 - (a) Confusion between the Oregon codification numbers and the CFR numbering system. Under the proposed Oregon numbering system, it is extremely difficult for the regulated community to readily determine differences between the Federal rules and the Oregon rules. Changes can only be determined by completely reading each section and comparing them, each time, with Federal rules. In order to make the Oregon rules workable, it is vital to establish a numbering system which parallels the CFR's.

(b) The special Oregon rules further complicate the already complex administrative burden which the DEQ and the regulated community face under the Federal rules.

(c) The State of Oregon receives no Federal financial support and in all probability, no credit for the Oregon portion of the rules.

A. The EPA makes and interprets the Federal rules; placing the DEQ in a subservient role to the EPA and incapable of making independent binding comments or interpretation on the meaning of the rules. In order for DEQ to make comments and/or interpretations of the rules it must first check with the EPA, which many times requires going to EPA headquarters in D.C. for clarification. Practical problems arise during inspections of facilities when interpretations are needed and are not forthcoming, thereby exacerbating the inability of the DEQ to properly perform its role.

5. AOI strongly believes and urges the EQC to eliminate the Oregon portion of the regulations except those required by Oregon law and adopt without unnecessary modifications, the Federal rules by reference.

AOI urges your serious consideration of this recommendation in view of the significant impacts on both the agency and the persons subject to regulation. The DEQ has strengthened the air and water programs in Oregon as a result of the adoption of more stringent rules. However, AOI suggests that the EPA Hazardous Waste Regulations are, in themselves, so stringent and far reaching that the justification for special Oregon rules should be seriously questioned.

We will now comment on the rules that were the subject of the hearing.

I. Section 100

A) 340-100-005 should be deleted as there is no statutory statement of purpose and scope in ORS 459. While there may have been some justification for such a statement when the rules were initially adopted, but when adopting the Federal regulations in full, there appears little reason for it. Any statement of purpose included now should clearly indicate that the OAR's are Oregon rules and do not duplicate the Federal rules which are adopted by reference.

B) OAR 340-100-010 relating to adoption of Title 40 CFR Part 260 and amendments promulgated thereto prior to May 1, 1985 should be consolidated with 340-101-010, 340-102-010, 340-103-010, 340-104-010, 340-105-010, 340-106-010 (including the note relating to 106-010) and 340-107-010. Consolidation of these regulations in Division 100 indicating that the State of Oregon is adopting all the Federal regulations would clarify the issue that they are adopted for all of the Federal rules 260 through 267 (40 CFR Section 260-267). In addition, when amendments are made then all of the amendments could be made in one section rather than having to amend each of the seven Divisions that are involved.

C) OAR 340-100-025 should be consolidated with 340-101-015 (4), 340-102-015, 340-103-015, 340-104-025, 340-105-015 and 340-106-015 for the reason that they all relate to the same issue of clarifying the definitions of "Administrator" and "Regional Administrator" as the transition is made from Federal regulations to Oregon regulations. This would shorten the regulations and make them clearer by combining all of this information in Division 100.

D) OAR 340-100-030 (2) (a) definition of "Aquatic LC50". The definition of "Aquatic LC50" uses as a measuring device the "DEQ Hazardous Waste Classification Aquatics Toxicity Bioassay" as the test protocol. This document, whether public or not, is noted for the first time in these proposed rules, and has not been reviewed by the regulated community and, to the best of our knowledge, has not been subject to scientific peer review to determine whether or not the tests and specifications required by the document are scientifically defensible. Furthermore, at this point in time, the EPA has yet to select a bioassay procedure for the designation of wastes under RCRA; but it can be expected to do so in the future. It is foreseeable that the selection procedures which the EPA may utilize, will vary and give results which are different from the salmon bioassay proposed by the DEQ.

The consistency between the State and Federal rules should be maintained whenever possible and therefore AOI believes that the proposed adoption of bioassay specifications should be stayed until such time as Federal bioassay specifications are promulgated and consistency between the Federal and State programs can be assured. Furthermore, AOI suggests that the "DEQ Hazardous Waste Classification Aquatics Toxicity Bioassay" should not be included as a measuring device prior to its review by both the regulated community and the scientific community.

E) AOI questions why the definition for "Constituent" or "Hazardous Waste Constituent" as defined in the proposed OAR 340-100-003 (2) (e) is being changed from the existing OAR 340-100-010. The definitional change is an expansion of the existing definition and AOI asks the DEQ for the rationale and/or the justification for the expanded definition. Furthermore, the expanded Oregon definition to include all listings in all of Division 101 is greater than the present CFR definition of "hazardous waste constituent" as noted in 40 CFR 260.110, which limits the definition to administrator listing in Part 261, Subpart D or a constituent listed in Table 1 or Part 261.24.

F) 340-100-035 (1) (c) - AOI refers you to our previously stated concerns about the use of the "DEQ Hazardous Waste Classification Aquatics Toxicity Bioassay" being incorporated by reference for the reasons noted under the Aquatics LC50 definition.

G) OAR 340-100-050 (2) should be amended to change the CFR citation from 40 CFR 260.21 to 40 CFR 260.22 which encompasses "Petitions to Amend Part 261 to Exclude a Waste Produced at a Particular Facility."

III. Division 101

A) OAR 340-101-015 (2) and (3) (b) - These two subsections involve the terms "Residue" and "Solid Waste". The agency seems to be going to extended and unnecessary efforts to include the term "Residue" in lieu of the term "Solid Waste" in these rules. When the definition of the term "Residue" is read in conjunction with Subsection 4 (b) the term "Solid Waste" ends up meaning "Solid Waste".

The only foreseeable reason for inserting the term "Residue" in lieu of the term "Solid Waste" in the Federal rules is to avoid an apparent conflict with the ORS 359.005 definition of "Solid Waste". However, a careful reading of ORS 459.005 indicates that those definitions are only applicable to ORS 459.005 to 459.285 and therefore any statutory definition of the term "Solid Waste" in ORS 459.005 does not present a conflict with the definitions and/or terms used in the hazardous waste regulations, adopted pursuant to ORS 459.410 through 459.695. Therefore, AOI fails to see the need for the insertion of the term "Residue" in lieu of the term "Solid Waste" in these rules, and recommends the term "Solid Waste" be retained for reasons of consistency with the Federal regulations.

*Withdrawn
by Donaca
7/11/85
ALG*

B) AOI suggests that OAR 340-101-025 (2) be amended to allow generators to not only send wastes to licensed TSD facilities which have been authorized by a State program pursuant to 40 CFR 265, 270 and 271 but also to allow shipments to licensed TSD facilities which are regulated solely by the EPA pursuant to 40 CFR 264 and 270. A reading of the rule as written would appear to preclude the shipment of wastes to the latter type of facility regulated to 40 CFR 264 and 270.

C) OAR 340-101-025 (2) (d) - The aforementioned comments on Subsection (c) of this section are also applicable to this (d) section.

D) 340-101-045 - AOI again questions the use of the "DEQ Hazardous Waste Classification Aquatics Toxicity Bioassay" text for reasons previously listed under definition of Aquatic LC50.

E) 340-101-045 (2) - AOI asks the Agency to justify the expansion of (2) to include all of Division 101 rather than the previous rule which limited the inclusion to only Subdivision D or 101 or correspondingly Subdivision D of 40 CFR 261. AOI procedurally questions the validity of the expansion when the change was not identified as a major change from the existing 340-101-034 (2) and there was no identification or notification of the change to affected parties.

IV. Division 102

A) OAR 340-102-015 (3) "Solid Wastes" means residues. The term "Residues" as used in this Subsection is not encompassed by the definition of the term "Residue" as noted in OAR 340-101-015 (c) (2). The term "Residue" either must be defined to mean "Solid Waste" as defined in 40 CFR 261.2 or the definition of "Residue" in OAR 340-101-015 (c) (2) must be expanded to also encompass Division 102.

V. Division 104

A) OAR 340-104-020 (2) proposed to delete 40 CFR 264.3. We do not understand why the Agency proposes to delete the requirements of 40 CFR 265 for interim status facilities unless it intends to make the requirements of 40 CFR 264 applicable to all facilities, both those receiving both final permits and operating under interim status rules. Furthermore, should the Agency intend to delete 40 CFR 265 other actions proposed in these rules lose validity, principally the adoption of the 4-23-85 Federal Register (50 CFR 18370, 18374) 1-14-85 Federal Register (50 FR 1978, 2005). Is this an inadvertent oversight or, if not, AOI would request the Agency to explain the implication of this rule.

B) OAR 340-104-070 is ambiguous and needs clarification. The proposed wording fails to make clear distinction between rules which are applicable to owners and operators of disposal facilities and owners and operators of treatment and/or storage facilities. AOI would suggest that the introductory language to 40 CFR 264.145 be amended to read as follows:

"The owner or operator of a disposal facility must choose the option specified in 40 CFR 264.145 (a). The owner or operator of a treatment or storage facility subject to post-closure monitoring or measuring requirements must establish financial assurances for post-closure care in accordance with the approved post-closure plan for the facility. He must choose one of the options specified in 40 CFR .145 (A) through (I)."

C) 340-104-070 (4) - While the proposed rule is consistent with existing rules, questions arise as to the need for the existing rule. Inasmuch as 40 CFR 264.145 (F) (11), read in its entirety, would appear only to be applicable to those corporations which are owned by a parent corporation and therefore the additional specificity of the Oregon rules appears to be redundant and unneeded.

D) 340-104-140 must be deleted. This rule requires owners and operators of surface impoundments and/or waste pile facilities upon closure to convey via a deed the property to the State of Oregon. These requirements are beyond the scope or intent of ORS 459, more specifically the land disposal and deed conveyance requirements of ORS 459.530 - 600. (Reference is also made to SB 183 (1985) for siting of a disposal facility.) Furthermore, this proposed rule enlarges upon the existing administrative rules without specific notification to affected parties that the proposed rules would require them to deed property to the Agencies. Lastly, the Agency has provided no justification for the need for the rule.

VI. Division 105

A. OAR 340-105-021 should be rewritten to adequately cover the requirements encompassed in ORS 459.590. In the alternative, the section could be deleted because the statutory provisions of ORS 459 relating to hazardous waste disposal sites are complete and will control over these rules.

*Withdrawn
by Donaca
7/11/85
akb*

B. OAR 340-105-030 stipulates that a permit is personal to the permittee and not transferable. While the proposed rule is consistent with the existing 340-105-004 (4) by the department's adoption of 40 CFR 270 (Federal Procedural Rules for Administering 40 CFR 260-266) the department is unilaterally deleting the permittee's property rights encompassed by 40 CFR 270.40. AOI believes and contends that while it can support that the permit is personal to the licensee and therefore not transferable, provisions must be included within the rule to allow a subsequent purchaser of the permittee's property to make application and to receive a permit to continue operation of the facility. A transferable permit to the subsequent owner cannot be reasonably withheld by the Department. However, the Department could prohibit transfer of the permit if significant, non-correctable and outstanding violations existed at the facility. OAR 340-104-030 should be amended to read as follows:

A permit is personable to the permittee and is not transferable. Subsequent purchasers of the property or persons with operational control of the facility are subject to the provisions of OAR 340-105-040 (2) (d) (B) (iv).

C. OAR 340-105-014. This rule should be deleted in view of the very broad, pervasive, and all encompassing requirements of 40 CFR 270.14. AOI is hard pressed to imagine any additional "pertinent information" which the department would require that is not already addressed within existing federal rule and therefore opposes the inclusion of the broad non-defined authority.

Withdrawn by Donaca 7/11/85 atg
D. OAR 340-105-075 (2) - (5) is confusing and difficult for the regulated community to follow. AOI therefore strongly suggests that the DEQ modify the rule as follows:

(2) The provisions of 40 CFR 270.30 (1) are deleted and the rule is amended to read in whole as follows: The Agency should then draft the rule the way it intends the entire 40 CFR 270.30 (1) to read.

Withdrawn by Donaca 7/11/85 atg
E. OAR 340-105-080 (2) - (4) is difficult to read and follow by the regulated community. The benefits which allegedly accrue to the Agency by making the changes do not appear to justify the confusion which is created within the rules as drafted. AOI therefore strongly suggests that the Agency delete the proposed changes.

Withdrawn by Donaca 7/11/85 atg
F. OAR 340-105-095. The proposed modifications to 40 CFR 270.61 (b) (4) and the new proposed rule under OAR 340-105-090 (2) appear to exceed the authority granted the Department under ORS 459.680 and deny the permittee reasonable due process protection as encompassed within ORS 459.680 (2). AOI strongly urges the Department to review the statute and modify the rule to comply with in.

VII. Division 106

A. OAR 340-106-030 (3). The proposal to delete 40 CFR 124.3 (g) seems unjustified in view of the numerous timelines and advance notice which the regulated community must give to the Agency. It is only

equitable that the Agency also be required to give the regulated community notice for proposed dates in which it intends to: 1) Prepare draft permits, 2) Give public notice, 3) Complete public comment, including any public hearings; for issuance of final permit. AOI would therefore ask that the Agency also be required to give notice of intended action with appropriate timeliness to the regulated community.

Lastly, AOI would remind the Department that compliance with the administrative rules and statutes governing the management of hazardous waste is extremely difficult and complex. The rules pertaining to these practices are lengthy and exceedingly technical. This complexity is further compounded by the fact that the regulated community must continually refer to both the Code of Federal Regulations Title 40 as well as the appropriate Oregon Administrative Rules. When the existing rules were adopted in 1984 the Agency acknowledged this complexity by adopting an administrative rule numbering system which was easily referable to the Federal numbering system. AOI strongly requests the Agency reconsider the numbering system of the Oregon rules and, to the maximum extent practical, amend the Oregon Administrative Rule numbering system to correspond to those of the Federal rules so that the regulated community can: 1) Readily comply with the rules and, 2) Readily discern the differences between them.

The rules as proposed would require the regulated community to each and every time read the entire appropriate section of the Oregon Administrative Rules in order to determine any differences which may exist between the Oregon and Federal rules. Also, the Department must understand that by the adoption by reference of the Federal rules, the Federal rules will become the primary rules to which the regulated community refer and the Oregon rules will become secondary. Therefore, the secondary rules must be written so as to provide ready reference to the primary rules.

This concludes our comments on the proposed Oregon rules.

The questions the association has raised regarding the proposed Oregon rules should not stay the adoption of Federal rules. We strongly urge the adoption of all currently adopted and finally proposed rules.

In view of the shortness of the Federal rules by reference at the July 19, 1985 Commission meeting. If the issues we have raised regarding the Oregon rules cannot be resolved by that time, then we would suggest that the Oregon rules be set over till the next Commission meeting. We offer our full assistance in the solution of this issue.

Again, we appreciate the opportunity provided AOI to comment.

Respectfully submitted,



Thomas C. Donaca, General Counsel

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

CURRENT & PROJECTED RULEMAKING

Final Codification Rule for 1984 Amendments	5/00/85	
Containerized Liquids in Landfills	2/00/86	
Prohibition of Underground Injection of Wastes	8/00/86	
Criteria for Classification of Solid Waste Disposal Facilities and Practices	3/00/87	
Air Emission Regulations for Treatment, Storage, and Disposal Area Sources	00/00/00	
Identification and Listing of Hazardous Wastes: Ignitable Hazardous Waste	3/00/86	
Ident. and List of HW: Acute HW Mixture Rule (Revision)	9/00/85	
Ident. and List of HW: Listing of Commercial Chemical Products (Revision)	3/00/86	
Ident. and List of HW: Listing of Used Oil	8/00/85	
Standards for the Management of Specific HW: Waste Oil (RPRM)	8/00/85	
	11/00/85	
Ident. and List of HW: Hexavalent Chrome Modification (Revision) Publication of Report	3/00/86	
Ident. and List of HW: Revise and Expand Solvent Listings (Revision)	8/00/85	
RCRA Small Quantity Generator Rule (Revision)	7/00/85	
Ident. and List of HW: Toxicity Characteristic Modification	10/00/85	
Ident. and List of HW: Delisting Procedures (Revision)	2/22/85	50 FR 7882
Ident. and List of HW: Test Methods for HW (Revision)	10/01/84	49 FR 38786
Final Action	5/00/86	
Schedule for Reviewing Wastes for Possible Land Disposal Restriction	5/31/85	50 FR 23250
Codification Rule for the 1984 RCRA Amendments	3/00/85	
Ident. and List of HW: Laboratory Waste Listing	9/00/85	
Ident. and List of HW: EP Toxicity Standards for Owners/Operators of HW Facilities: Liquids and Landfills (Revision) Final Action	10/00/85	
Consolidated Class Permits (NPRM)	7/02/84	49 FR 29524
Final Action	9/00/85	
Standards for Storage or Treatment of HW in Tank Systems	4/00/85	
Standards for Owners/Operators of Waste Facilities: Corrective Action Financial Responsibility	10/00/85	

Land Disposal Liner and Leak Detection Regulation	4/00/86	
Standards for Owners/ Operators of Waste Facilities: Closure and Post-Closure Care (Revision) NPRM	3/19/85	50 FR 11068
Final Action	9/00/85	
Alternate Concentration Limits (ACL)	8/00/86	
Financial Responsibility for Corrective Action: Prior Releases	1/00/86	
Use of Appendix VIII for Groundwater Monitoring	8/00/86	
Consolidated Permits: Duration of Permits for HW Facilities (Revision)	5/00/85	
Notification Form for Underground Tanks	5/28/85	50 FR 21772
Leaking Underground Storage Tanks: Performance Standards for New Tanks	2/00/86	
Leaking Underground Storage Tanks: Regulations for Existing Tanks	2/00/86	
Interperative Rule for the LUST Interim Review of Groundwater Monitoring	5/00/85	

DIVISION 100
HAZARDOUS WASTE MANAGEMENT

Hazardous Waste Management System: General

- 340-100-001 Purpose and scope.
- 340-100-002 Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.
- 340-100-003 Confidentiality.
- 340-100-004 Table of contents, Divisions 100 to 110.
- 340-100-010 Definitions.
- 340-100-011 References.
- 340-100-020 Petitions, general.
- 340-100-021 Petitions for equivalent testing or analytical methods.
- 340-100-022 Petitions to amend Division 101 to exclude a waste produced at a particular facility.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose and scope.

340-100-001 The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

The purpose of the management program contained in Divisions 100 to 110 of this Chapter is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Waste reduction at the point of generation, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

Divisions 100 to 106 incorporate, by reference, hazardous waste management regulations of the federal program, included in 40 CFR Parts 260 to 266, 270 and Subpart A of 124, into Oregon Administrative Rules. Therefore, persons must consult these parts of 40 CFR in addition to Divisions 100 to 106 of these rules to determine all applicable hazardous waste management requirements.

A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-100-002 Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, the rules and regulations governing the

management of hazardous waste, including its generation, transportation by air or water, treatment, storage and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 260 to 266, 270 and Subpart A of 124, and amendments thereto promulgated prior to May 1, 1985, are adopted and prescribed by the Commission to be observed by all persons subject to ORS 459.410 to 459.450, and 459.460 to 459.695.

Confidentiality.

340-100-003 (1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) Records, reports, and information submitted pursuant to these rules may be claimed as confidential by the submitter. Such claim must be asserted at the time of submission by stamping the words "confidential business information" or the equivalent on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with ORS 192.500 and 459.460.

(3) Records, reports, and information submitted pursuant to these rules shall be made available to EPA upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Comment: It is suggested that claims of confidentiality be

restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.)

Table of contents, Divisions 100 to 110.

340-100-004 The following Divisions including the incorporation of regulations in 40 CFR Parts 260 to 266, 270 and 124, comprise the Oregon hazardous waste management program:

<u>Division</u>	<u>Subject</u>
100	Hazardous Waste Management System: General
101	Identification and Listing of Hazardous Waste
102	Standards Applicable to Generators of Hazardous Waste
103	Standards Applicable to Transporters of Hazardous Waste by Air or Water
104	Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
105	Management Facility Permits
106	Permitting Procedures
108	Spills and Other Incidents
109	Management of Pesticide Wastes
110	Polychlorinated Biphenyls (PCBs)

Definitions.

340-100-010 (1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in 40 CFR 260.10.

(2) When used in Divisions 100 to 110 of this Chapter, the following terms have the meanings given below:

(a) "Administrator" means:

(A) The "Department," except as specified in paragraphs (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% of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC₅₀ is expressed in milligrams of the substance per liter of water.

(c) "Beneficiation of ores and minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process).

(d) "Collection." See "Storage."

(e) "Commission" means the Environmental Quality Commission.

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: the adoption of rules and issuance of orders thereon pursuant to ORS 459.440, 459.445 and 468.903; the making of findings to support declassification of hazardous wastes pursuant to ORS 459.430(3); the issuance of exemptions pursuant to ORS 459.505(2); the issuance of disposal site permits pursuant to ORS 459.580(2); and the holding of hearings pursuant to ORS 459.560, 459.580(2), 459.620, 459.650, and 459.660.

(g) "Director" means:

(A) The "Department," except as specified in paragraph (2)(g)(B) of this rule; or

(B) The "permitting body," as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(h) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700.

(i) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality.

(j) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department.

(k) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:

(A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

(B)(i) A continuous on-site, physical construction program has begun,
or

(ii) The owner or operator has entered into contractual obligations-- which cannot be cancelled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

(l) "Extraction of ores and minerals" means the process of mining and

removing ores and minerals from the earth.

(m) "Generator" means the person who, by virtue of ownership, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste.

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

(o) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.

(p) "Identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage and disposal facility.

(q) "License." See "Permit."

(r) "Management facility" means a hazardous waste treatment, storage or disposal facility.

(s) "Off-site" means any site which is not on-site.

(t) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see 40 CFR 173.151).

(u) "Permitting body" means:

(A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits;
or

(B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.

(v) "Permit" or "license" means the control document that contains the requirements of ORS Chapter 459 and Divisions 104 to 106. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit.

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

(x) "RCRA permit" means Oregon hazardous waste management facility permit.

(y) "Regional Administrator" means:

(A) The "Department," except as specified in paragraph (2)(y)(B) 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.

(z) "Residue" means solid waste as defined in 40 CFR 261.2.

(aa) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(bb) "Spill" means unauthorized disposal.

(cc) "Storage" or "collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste.

(dd) "Waste management unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the 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.

References.

340-100-011 (1) In addition to the publications listed in 40 CFR 260.11, when used in Divisions 100 to 110, the following publications are incorporated by reference:

(a) Code of Federal Regulations, Title 40, U.S. Environmental Protection Agency.

(b) Code of Federal Regulations, Title 49, U.S. Department of Transportation.

(2) The references listed in section (1) of this rule and in 40 CFR 260.11 are available for inspection at the Department of Environmental Quality, 522 SW Fifth Ave., Portland, Oregon, 97204. These materials are incorporated as they exist on April 30, 1985.

Petitions, general.

340-100-020 (1) Any person may petition the Department to approve an equivalent testing or analytical method or may petition the Commission to exclude a waste produced at a particular facility. This rule sets forth general requirements which apply to all such petitions.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.20.

(3) After evaluating all public comments, the Department or Commission as appropriate will make a decision to grant or deny the petition. Persons commenting on the petition will be notified and the decision placed in the public record.

Petitions for equivalent testing or analytical methods.

340-100-021 (1) Any person seeking to add a testing or analytical method to Divisions 101, 104 or 105 shall petition under this rule and rule 340-100-020.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.21.

(3) If the Department permits use of a new testing or analytical method, the method will be made available for public inspection in the manner indicated in rule 340-100-011(2).

(Comment: In most instances, the Department will not consider approving a testing or analytical method until it has been approved by EPA.)

Petitions to amend Division 101 to exclude a waste produced at a particular facility.

340-100-022 (1) Any person seeking to exclude a waste at a particular generating facility from the lists in Subpart D of Part 261 shall petition under this rule and rule 340-100-020.

(2) Persons submitting petitions shall comply with the requirements of 40 CFR 260.22.

(3) The Commission may (but shall not be required to) grant a temporary exclusion before making a final decision under 40 CFR 260.20(d) whenever it finds that there is a substantial likelihood that an exclusion will be finally granted. The Commission will place any such temporary exclusion in the public record.

DIVISION 101
HAZARDOUS WASTE MANAGEMENT

Identification and Listing of
Hazardous Waste

- 340-101-001 Purpose and scope.
- 340-101-004 Exclusions.
- 340-101-005 Special requirements for hazardous waste produced by small quantity generators.
- 340-101-032 Hazardous waste from specific sources.
- 340-101-033 Additional hazardous wastes.
- 340-101-034 Basis for listing hazardous waste.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose and scope.

340-101-001 (1) The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 108 of this Chapter.

(2) Persons must also consult 40 CFR Parts 260-266, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

Exclusions.

340-101-004 (1) The provision of 40 CFR 261.4(b)(7) is deleted and replaced with section (2) of this rule.

(2) Residues from the extraction and beneficiation of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore, are not hazardous waste.

(Comment: The State program is more stringent than the federal program in that the latter also excludes residues from processing.)

Special requirements for hazardous waste produced by small quantity generators.

340-101-005 (1) The provisions of 40 CFR 261.5(b) and 261.5(g) are deleted and replaced with sections (2), (3), (4) and (5) of this rule.

(2) Except for those wastes identified in 40 CFR 261.5(e) and (f), a small quantity generator's hazardous wastes are subject to regulation under Divisions 100 to 108 only to the extent of generator compliance with the requirements of OAR 340-101-005(3) and the owner or operator of

a treatment or storage facility's compliance with the requirements of OAR 340-101-005(4).

(3) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under 40 CFR 261.5, the generator must:

(a)(A) Comply with 40 CFR 262.11; and

(B) If he generates more than 200 pounds in a calendar month, comply with 40 CFR 262.12(a), 262.30, 262.31, and 262.32(a).

(b) If he stores his hazardous waste on-site, store it in compliance with the requirements of 40 CFR 261.5(f); and

(c) If the quantity generated in a calendar month exceeds the small quantity disposal exemptions indicated in section (5) of this rule: Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(A) Permitted under Division 105;

(B) In interim status under 40 CFR Parts 265 and 270;

(C) Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR Part 271;

(d) If the quantity generated in a calendar month is equal to or less than the small quantity disposal exemptions indicated in section (5) of this rule:

(A) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(i) Permitted under Division 105;

(ii) In interim status under 40 CFR Parts 265 and 270;

(iii) Authorized to manage hazardous waste by a state with a hazardous

waste management program approved under 40 CFR Part 271; or

(iv) Permitted, licensed or registered by a state to manage municipal or industrial solid waste. Additionally, the generator shall:

(I) Securely contain the waste to minimize the possibility of waste release prior to burial; and

(II) Obtain permission from the waste collector or from the landfill permittee, as appropriate, before depositing the waste in any container for subsequent collection or in any landfill for disposal. In the event that the waste collector or landfill permittee refuses to accept the waste, the Department shall be contacted for alternative disposal instructions.

(4) The owner or operator of an off-site facility that treats or stores hazardous waste obtained only from small quantity generators in amounts greater than 200 pounds but less than 2000 pounds of hazardous waste in a calendar month must obtain a letter of authorization from the Department as required by rule 340-105-100. Owners or operators of off-site facilities that treat or store more than 2000 pounds per calendar month are fully subject to regulation under Divisions 100 to 108.

(5) The following small quantity exemption levels shall be used for purposes of section (3) of this rule:

<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>	<u>Hazardous Waste No.</u>	<u>Small Quantity Disposal Exemption (lb. per month)</u>
D001	25	F001	200
D002	200	F002	200
D003	Determined by the Dept. on an individual basis, but not to exceed 200	F003	25
		F004	200
D004	10	F005	25
D005	200	F006	200
D006	10	F007	10
D007	200	F008	10
D008	200	F009	10
		F010	10
		F011	10

Hazardous Waste No. Small Quantity Disposal Exemption (lb. per month)

D009 10
D010 200
D011 200
D012 10
D013 10
D014 10
D015 10
D016 10
D017 10

K001 10
K002 200
K003 200
K004 200
K005 200
K006 200
K007 200
K008 200
K009 200
K010 200
K011 200
K013 200
K014 200
K015 10
K016 200
K017 200
K018 200
K019 200
K020 200
K021 200
K022 200
K023 200
K024 200
K025 200
K026 200
K027 200
K028 200
K029 200
K093 200
K094 200
K095 200
K096 200
K030 200
K083 200
K103 200
K104 200
K085 200
K105 200
K071 10

Hazardous Waste No. Small Quantity Disposal Exemption (lb. per month)

F012 10
F024 200
F020 2
F021 2
F022 2
F023 2
F026 2
F027 2
F028 10

K073 200
K106 10
K031 10
K032 10
K033 10
K034 10
K097 10
K035 10
K036 10
K037 10
K038 10
K039 10
K040 10
K041 10
K098 10
K042 10
K043 10
K099 10
K044 200
K045 200
K046 200
K047 200
K048 200
K049 200
K050 200
K051 200
K052 200
K061 200
K062 200
K069 200
K100 200
K084 10
K101 10
K102 10
K086 200
K060 200
K087 200
K088 200

P001 to P999 - Commercial chemical products or intermediates	2
P001 to P999 - Spill cleanup	200
P001 to P999 - Process waste as defined in 340-101-040(2)(a)	10
U001 to U999 - Commercial chemical products or intermediates	10
U001 to U999 - Process waste as defined in 340-101-040(2)(b)	10
X001 - Pesticide waste as defined in 340-101-045	10
All F, K, U and X listed spill cleanup	2000

Hazardous waste from specific sources.

340-101-032 The following hazardous wastes are added to and made a part of the list of hazardous wastes in 40 CFR 261.32:

K088 . . . Spent potliner from primary aluminum
reduction - Hazard code: R, T

Additional hazardous wastes.

340-101-033 (1) The residues identified in sections (2) and (3) 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.

(2) Any residue, including but not limited to manufacturing process wastes and unused chemicals that has either:

(a) A 3% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e); or

(b) A 10% or greater concentration of any substance or mixture of

substances listed in 40 CFR 261.33(f).

(3) 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); or

(b) A residue identified in subsection (2)(b).

(4) The wastes identified in subsections (2)(a) and (3)(a) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

(Comment: Sections (2) and (3) of this rule shall be applied to a manufacturing process waste only in the event it is not identified elsewhere in this Division, but prior to application of section (5) of this rule.)

(5)(a) A pesticide residue or pesticide manufacturing residue is a toxic hazardous waste if a representative sample of the residue exhibits a 96-hour aquatic LC₅₀ equal to or less than 250 mg/l.

(b) A pesticide residue or pesticide manufacturing residue identified in subsection (5)(a) of this rule but not in 40 CFR 261.24 or listed elsewhere in Subpart D of 40 CFR Part 261, has the Hazardous Waste Number of X001 and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.

(6)(a) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in subsection (6)(b) this rule are added to and made a part of the list in 40 CFR 261.33(e).

(b) P999 Nerve agents (such as GB (Sarin) and VX).

Basis for listing hazardous waste.

340-101-034 (1) The waste identified in section (2) of this rule is hereby added to and made a part of Appendix VII: Basis for Listing Hazardous Wastes to 40 CFR Part 261.

(2) Hazardous <u>Waste No.</u>	Hazardous constituents <u>for which listed</u>
K088	cyanide

DIVISION 102
HAZARDOUS WASTE MANAGEMENT

Standards Applicable to
Generators of Hazardous Waste

- 340-102-010 Purpose, scope and applicability.
- 340-102-011 Hazardous waste determination.
- 340-102-012 Identification number.
- 340-102-034 Accumulation time.
- 340-102-040 Recordkeeping.
- 340-102-041 Quarterly reporting.
- 340-102-050 International shipments.
- 340-102-051 Farmers.
- 340-102-060 Additional instructions for the Uniform Hazardous Waste Manifest.
- 340-102-065 Hazardous waste generator fees.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose, scope and applicability.

340-102-010 (1) The purpose of this Division is to establish standards for generators of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) In addition to the provisions of 40 CFR 262.10, a person identified in section (4) of this rule who produces a pesticide residue, excluding unused commercial pesticide, that is hazardous solely by application of section (5) of rule 340-101-033, is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.

(4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue from agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland); industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards); structural pest control (for example, in human dwellings); ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf); forest pest control; recreational pest control (for example, in parks or golf courses); governmental (for example, for clearing a right-of-way, or vector, predator, and aquatic pest control); seed treatment; and pesticide demonstration and research.

(5) A person who generates a hazardous waste as defined by 40 CFR 261.3 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS 459.650 to .690, .992 and .995, and OAR Chapter 340,

Division 12.

Hazardous waste determination.

340-102-011 (1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in rule 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4 or rule 340-101-004.

(b) He must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of rule 340-101-033.

(Comment: Even if the waste is listed, the generator still has an opportunity under rule 340-100-022 to demonstrate to the Commission that the waste from his particular facility or operation is not a hazardous waste.)

(c) If the waste is not listed as a hazardous waste by application of subsection (2)(b) of this rule, he must determine whether the waste is identified in 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 rule 340-100-021; or

(Comment: In most instances, the Department will not consider approving a test method until it has been approved by EPA.)

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is not identified as hazardous by application of subsection (2)(c) of this rule, he must determine if the waste is listed under rule 340-101-033.

Identification number.

340-102-012. In addition to the provisions of 40 CFR 262.12, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and identification numbering system (Dun and Bradstreet) for generators who register in the future.

Accumulation time.

340-102-034 In addition to the requirements of 40 CFR 262.34, a generator may accumulate hazardous waste on-site for 90 days or less without a permit provided that:

(1) If storing in excess of 100 containers, the waste is placed in a storage unit that meets the requirements of 40 CFR 264.175; and

(2) If storing in tanks, the tank unit complies with rule 340-104-191.

Recordkeeping.

340-102-040 (1) The provisions of section (2) of this rule replace the requirements of 40 CFR 262.40(b).

(2) A generator must keep a copy of each Quarterly Report and Exception Report for a period of at least three years from the due date of the report.

Quarterly reporting.

340-102-041 (1) The provisions of this rule replace the requirements of 40 CFR 262.41.

(2) A generator who ships his hazardous waste off-site must submit to the Department Quarterly Reports of the waste shipped:

(a)(A) The Quarterly Report consists of copies of the latest quarter's manifest and shipping papers. Alternatively, generators may copy the information from the manifests and shipping papers onto a form of their choice and submit it within the same time schedule.

(Comment: For ease of processing, the Department prefers xerographic or carbon copies of the manifests and shipping papers.)

(B) The Quarterly Report must be accompanied by the following certification signed and dated by the generator or his authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(b) No later than 45 days after the end of each calendar quarter.

(3) Any generator who treats, stores, or disposes of hazardous waste on-site must submit a report covering those wastes in accordance with the provisions of Divisions 104 and 105.

International shipments.

340-102-050 (1) Any person who is required to comply with 40 CFR 262.50 shall also comply with sections (2) and (3) of this rule.

(2) When shipping hazardous waste outside the United States, the generator must notify the Department in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year;

(a) The waste must be identified by its EPA hazardous waste identification number and its DOT shipping description;

(b) the name and address of the foreign consignee must be included in this notice;

(c) These notices must be sent to:

Hazardous Waste Section
Department of Environmental Quality
PO Box 1760
Portland, OR 97207

(3)(a) The requirements of subsection (3)(b) of this rule replace the provisions of 40 CFR 262.50(d)(2).

(b) In addition to the generator's signature on the certification statement, the U.S. importer or his agent must also sign and date the certification and obtain the signature of the initial transporter.

Farmers.

340-102-051 In addition to the provisions of 40 CFR 262.51, a farmer disposing of waste pesticides from his own use which are hazardous wastes shall comply with the requirements of Division 109.

Instructions for the Uniform Hazardous Waste Manifest.

340-102-060 (1) In addition to the instructions in the Appendix to 40 CFR Part 262, relating to completion of the Uniform Hazardous Waste Manifest, generators shall also comply with sections (2), (3), (4) and (5) of this rule.

(2) Enter a telephone number where an authorized agent of the first transporter may be reached in the event of an emergency, in:

- (a) Item D of EPA Form 8700-22; and
- (b) Item O of EPA Form 8700-22A, if applicable.

(3) Enter a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency, in:

- (a) Item F of EPA Form 8700-22; and
- (b) Item Q of EPA Form 8700-22A, if applicable.

(4) Enter a telephone number where an authorized agent of the facility may be reached in the event of an emergency in Item H of EPA Form 8700-22.

(5) Enter the EPA Hazardous Waste Number in:

- (a) Item I of EPA Form 8700-22; and
- (b) Item R of EPA Form 8700-22A, if applicable.

(6) The authorized disposal request number may be entered in:

- (a) Item 15 of EPA Form 8700-22; and
- (b) Item 32 of EPA Form 8700-22A, if applicable.

Hazardous waste generator fees.

340-102-065 (1) Beginning July 1, 1984, each person generating hazardous waste shall be subject to an annual fee based on the volume of hazardous waste generated during the previous calendar year. The fee

period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1, except that for fiscal year 1985 the fee shall be paid by January 1, 1985.

(2) For the purpose of determining appropriate fees, each hazardous waste generator shall be assigned to a category in Table 1 of this Division based upon the amount of hazardous waste generated in the calendar year identified in section (1) of this rule except as otherwise provided in section (5) of this section.

(3) For the purpose of determining appropriate fees, hazardous waste that is used, reused, recycled or reclaimed shall be included in the quantity determinations required by section (1) of this section.

(4) In order to determine annual hazardous waste generation rates, the Department intends to use generator quarterly reports required by rule 340-102-041; treatment, storage and disposal reports required by rule 340-104-075; and information derived from manifests required by 40 CFR 262.20. For wastes reported in the units of measure other than cubic feet, the Department will use the following conversion factors: 1.0 cubic feet = 7.48 gallons = 62.4 pounds = 0.03 tons (English) = 0.14 drums (55 gallon).

(5) Owners and operators of hazardous waste treatment, storage and disposal facilities shall not be subject to the fees required by section (1) of this rule for any wastes generated as a result of storing, treating or disposing of wastes upon which an annual hazardous waste generation fee has already been paid. Any other wastes generated by owners and operators of treatment, storage and disposal facilities are subject to the fee required by section (1) of this rule.

(6) All fees shall be made payable to the Department of Environmental Quality.

Table 1

<u>Hazardous Waste Generation Rate (cu.ft./year)</u>	<u>Fee (dollars)</u>
<35	No fee
35-99	\$ 100
100-499	350
500-999	625
1,000-4,999	1500
5,000-9,999	3500
>10,000	5000

DIVISION 103
HAZARDOUS WASTE MANAGEMENT

Standards Applicable to Transporters
of Hazardous Waste by Air or Water

- 340-103-010 Purpose and applicability.
- 340-103-011 Identification number.
- 340-103-030 Immediate action.
- 340-103-031 Discharge cleanup.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Purpose and applicability.

340-103-010 (1) The purpose of this Division is to establish standards which apply to persons transporting hazardous waste by air or water if the transportation requires a manifest under Division 102.

(2) Rail and highway transporters must comply with the regulations of the Public Utility Commissioner.

(3) Persons must also consult 40 CFR Parts 260-266, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

Identification Number.

340-103-011 In addition to the requirements of 40 CFR 263.11, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and EPA's identification numbering system (Dun and Bradstreet) for transporters who register in the future.

Immediate action.

340-103-030 In addition to the requirements of 40 CFR 263.30, a transporter who has discharged hazardous waste must report the discharge to the Oregon Emergency Management Division (800-452-0311).

Discharge clean up.

340-103-031 A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment. See Division 108 for further requirements.

DIVISION 104
HAZARDOUS WASTE MANAGEMENT

Standards for Owners and Operators of Hazardous
Waste Treatment, Storage and Disposal Facilities

- 340-104-001 Purpose, scope and applicability.
- 340-104-003 Relationship to interim status.
- 340-104-004 Imminent hazard action.
- 340-104-011 Identification number.
- 340-104-012 Required notices.
- 340-104-029 Unsaturated zone monitoring program.
- 340-104-056 Emergency procedures.
- 340-104-074 Availability of records.
- 340-104-075 Periodic report.
- 340-104-143 Financial assurance for facility closure.
- 340-104-145 Financial assurance for post-closure care.
- 340-104-147 Liability requirements.
- 340-104-149 Use of State-required mechanisms.
- 340-104-150 State assumption of responsibility.
- 340-104-151 Wording of the instruments.
- 340-104-191 Design of tanks.
- 340-104-220 Applicability to surface impoundments.
- 340-104-228 Closure and post-closure care of surface impoundments.
- 340-104-258 Closure and post-closure care of waste piles.
- 340-104-276 Food-chain crops.
- 340-104-314 Prohibition on land disposal of ignitable wastes.
- 340-104-339 Procedure for prohibiting the land disposal of any hazardous waste.
- 340-104-340 Applicability to incinerators.
- 340-104-343 Performance standards for incinerators.

Authority: ORS Chapters 468, including 468.020; 459, including 459.440; and 183.

Purpose, scope and applicability.

340-104-001 (1) The purpose of this Division is to establish minimum State standards which define the acceptable management of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3)(a) The provisions of subsection (3)(b) of this rule replace the requirements of 40 CFR 264.1(d).

(b) The requirements of this Division apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the following extent: 40 CFR 264.11 (identification number), 264.16 (personnel training), 264.71 (manifest system), 264.72 (manifest discrepancies), 264.73(a), (b)(1) and (b)(2) (operating record), 264.75 (periodic report), and 264.76 (unmanifested waste report). When abandonment is completed, the owner or operator must submit to the Department certification by the owner or operator and by an independent registered professional engineer that the facility has been closed in a manner that will ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another.

(4) The provisions of 40 CFR 264.1(f) are deleted.

(5) In addition to the requirements of 40 CFR 264.1(g)(8)(iii), any person covered by 40 CFR 264.1(g)(8)(iii) shall comply with the applicable requirements of Divisions 100 to 108.

Relationship to interim status.

340-104-003 (1) The provisions of 40 CFR 264.3 are deleted.

(2) An owner or operator of an existing facility which has not been issued a RCRA permit shall comply with the requirements of rule 340-105-010.

Imminent hazard action.

340-104-004 (1) The provisions of section (2) of this rule replace the provisions of 40 CFR 264.4.

(2) Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to ORS 459.650 to .690.

Identification number.

340-104-011 In addition to the provisions of 40 CFR 264.11, as a matter of policy, the Department will accept EPA identification numbers already assigned, use an amended EPA registration form, and use EPA's identification numbering system (Dun and Bradstreet) for owners and operators who register in the future.

Required notices.

340-104-012 The provisions of 40 CFR 264.12(c) regarding transfers of ownership are hereby deleted.

Unsaturated zone monitoring program.

340-104-029 An owner or operator may be required to establish an unsaturated zone monitoring program consisting of soil-pore liquid monitoring in the zone immediately below a facility to determine whether hazardous constituents have migrated out of the facility. The Department will approve the components of this program based on a consideration of the construction and operation of the facility and the type and amount of waste being managed therein.

Emergency procedures.

340-104-056 (1) In 40 CFR 264.56(d) prior to paragraph (1), the phrase "outside the facility" is deleted.

(2)(a) The requirements of subsection (2)(b) of this rule replace the provisions of 40 CFR 264.56(d)(2).

(b) He must immediately notify either the Department or the Oregon Emergency Management Division (using their 24-hour toll-free number 800-452-0311).

(3) In addition to the requirements of 40 CFR 264.56(j), the owner or operator's report must include:

(a) The steps taken to prevent a recurrence of the incident; and

(b) Any changes required in the contingency plan.

Availability of records.

340-104-074 (1) The provisions of 40 CFR 264.74(a) are replaced with section (2) of this rule.

(2) All records, including plans, required under this Division must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Department as authorized by ORS 459.285.

Periodic report.

340-104-075 (1) The provisions of this rule replace the requirements of 40 CFR 264.75.

(2) The owner or operator must prepare and submit an operating report to the Department on an approved form. Disposal facility reports are due monthly within 45 days after the end of each calendar month, and treatment and storage facility reports are due within 45 days after the end of each calendar quarter. The report must cover facility activities during the previous month or quarter, as appropriate, and must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The period covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the period; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the period. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) (Reserved)

(g) The most recent closure cost estimate under 40 CFR 264.142, and, for disposal facilities, the most recent post-closure cost estimate under 40 CFR 264.144; and

(h) A certification signed by the owner or operator of the facility or his authorized representative as required by 40 CFR 270.11(b).

(Comment: The state program is more stringent than the federal program in that it requires monthly or quarterly operating reports whereas the federal program requires a biennial report.)

Financial assurance for facility closure.

340-104-143 (1) This rule amends the requirements of 40 CFR 264.143.

(2) An owner or operator of a disposal facility must choose the option specified in 40 CFR 264.143(a).

(3)(a) If an owner or operator uses the trust fund option specified in 40 CFR 264.143(a) to establish financial assurance for closure of the facility, he must also comply with subsection (3)(b) of this rule.

(b) During the period the current closure cost estimate (CE) exceeds the current value of the trust fund (CV), the owner or operator must also establish supplemental financial assurance in the amount CE-CV by choosing one of the options specified in 40 CFR 264.143(b) to 264.143(f).

(4) The phrase ". . . term of the initial RCRA permit . . ." in the first sentence of 40 CFR 264.143(a)(3) is deleted and replaced with the phrase ". . . initial 10 years the facility is permitted under Divisions 105 and 106 . . ."

(5) The phrase ". . . in one or more States" in the last sentence of 40 CFR 264.143(e)(1) is deleted and replaced with the phrase ". . . in Oregon."

(6) The phrase "Except as may be required by 40 CFR 264.143(f)(10)," is added to the beginning of the first sentence of 40 CFR 264.143(f)(1).

(7) The phrase "An owner or operator that has a parent corporation may only meet . . ." replaces the phrase "An owner or operator may meet . . ." in the first sentence of 40 CFR 264.143(f)(10).

Financial assurance for post-closure care.

340-104-145 (1) This rule amends the requirements of 40 CFR 264.145.

(2)(a) The owner or operator of a disposal facility must choose the option specified in 40 CFR 264.145(a).

(b) The owner or operator of a treatment or storage facility subject to post-closure monitoring or maintenance requirements must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility and must choose one of the options specified in 40 CFR 264.145(a) through (h).

(3)(a) If an owner or operator uses the trust fund option specified in 40 CFR 264.145(a) to establish financial assurance for post-closure care of a facility, he must also comply with subsection (3)(b) of this rule.

(b) During the period the current post-closure cost estimate (CE) exceeds the current value of the trust fund (CV), the owner or operator must also establish supplemental financial assurance in the amount CE-CV by choosing one of the options specified in 40 CFR 264.145(b) to 264.145(f).

(4) The phrase "Except as may be required by 40 CFR 264.145(f)(11)," is added to the beginning of the first sentence of 40 CFR 264.145(f)(1).

(5) The phrase "An owner or operator that has a parent corporation may only meet . . ." replaces the phrase "An owner or operator may meet . . ." in the first sentence of 40 CFR 264.145(f)(11).

Liability requirements.

340-104-147 (1) This rule amends the requirements of 40 CFR 264.147.

(2) The phrase ". . . in one or more States" at the end of 40 CFR 264.147(a)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

(3) The phrase ". . . in one or more States" at the end of 40 CFR 264.147(b)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

(4) The provisions of 40 CFR 264.147(b)(4) are deleted.

Use of State-required mechanisms.

340-104-149 The provisions of 40 CFR 264.149 are deleted.

State assumption of responsibility.

340-104-150 The provisions of 40 CFR 264.150 are deleted.

Wording of the instruments.

340-104-151 (1) This rule amends 40 CFR 264.151.

(2) When used in 40 CFR 264.151, the references specified in section (2) of this rule shall be changed as indicated in this section.

(a) "The United States Environmental Protection Agency," "The U.S. Environmental Protection Agency," or "EPA" shall be "the Oregon Department of Environmental Quality" (hereinafter called "Department").

(b) "The United States Government" shall be "the State of Oregon."

(c) "The EPA Regional Administrator" shall be "the Department."

(d) "The appropriate EPA Regional Administrator" shall be "the Department."

(e) "The Resource Conservation and Recovery Act as amended (RCRA)" or "the Resource Conservation and Recovery Act of 1976 (as amended)" shall be "Oregon law."

(f) "Where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265" shall be "other than Oregon."

Design of tanks.

340-104-191 (1) Owners and operators of facilities subject to the requirements of 40 CFR 264.191 shall also comply with the requirements of section (2) of this rule.

(2) For tanks installed after January 1, 1985, tanks and related appurtenances, including but not limited to pipes, valves, backflow prevention devices, gauges, or pumps within 5 feet of the tank, must have secondary containment that:

(a) Is sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed;

(b) Has sufficient capacity to hold the entire volume of the largest tank; and

(c) Prevents run-on into the containment system unless there is sufficient excess capacity in addition to that required by subsection (2)(b) of this rule to contain it.

(Comment: It is intended that the appurtenance containment return any

leakage to the main tank containment.)

Applicability to surface impoundments.

340-104-220 (1) The provisions of 40 CFR 264.220 are deleted and replaced with the requirements of section (2) of this rule.

(2) The regulations in Subpart K of 40 CFR Part 264 apply to owners and operators of facilities that use surface impoundments to treat or store hazardous waste, except as 40 CFR 264.1 provides otherwise.

Closure and post-closure care of surface impoundments.

340-104-228 (1) The provisions of 40 CFR 264.228(a)(1), (c) and (d) are deleted and replaced with the requirements of sections (2), (3) and (4) of this rule.

(2) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 CFR 261.3(d) applies.

(Comment: The state program is more stringent than the federal program in that it requires the removal of all wastes, etc., at closure whereas the federal program gives the option of closing with wastes left in place.)

(3) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in section (2) of this rule, the owner or operator finds that not all contaminated

subsoils can be practicably removed or decontaminated, he must close the facility in accordance with the closure requirements of 40 CFR 264.228(a)(2) and perform post-closure care in accordance with the closure and post-closure care requirements of 40 CFR 264.228(b).

(4)(a) The owner or operator of a surface impoundment that does not comply with the liner requirements of 40 CFR 264.221(a) and is not exempt from them in accordance with 40 CFR 264.221(b) must:

(A) Include in the closure plan for the surface impoundment under 40 CFR 264.112 both a plan for complying with section (2) of this rule and a contingency plan for complying with section (3) of this rule in case not all contaminated subsoils can be practicably removed at closure; and

(B) Prepare a contingent post-closure plan under 40 CFR 264.118 for complying with section (3) of this rule in case not all contaminated subsoils can be practicably removed at closure.

(b) The cost estimates calculated under 40 CFR 264.142 and .144 for closure and post-closure care of a surface impoundment subject to this section must include the cost of complying with the contingent closure plan and the contingent post-closure plan.

Closure and post-closure care for waste piles.

340-104-258 The phrase ". . . but are not required to include the cost of expected closure under paragraph (a) of this section" at the end of 40 CFR 264.258(c)(2) is deleted.

Food-chain crops.

340-104-276 (1) In 40 CFR 264.276, the term "animal feed crops" is substituted for the term "food chain crops."

(2) The provisions of 40 CFR 264.276(b)(1) are deleted.

(Comment: The state program is more stringent than the federal program in that it does not permit crops intended for human consumption to be grown on a land treatment facility.)

Prohibition on land disposal of ignitable wastes.

340-104-314 (1) Except as may be permitted by sections (2) and (3) of this rule or by 40 CFR 264.314(b)(1) to .314(b)(4) an owner or operator shall not place in a land disposal unit any liquid waste or the free-liquid portion of any liquid/solid waste mixture if such mixture contains in excess of 20% free liquid, if the waste was initially generated as a liquid or as a liquid/solid mixture and is identified as a hazardous waste only because it is listed on the basis of or meets the characteristic of ignitability (I).

(Comment: These wastes include but are not limited to those having EPA Hazardous Waste Numbers D001, F003, U001, U002, U008, U031, U055, U056, U057, U092, U110, U112, U113, U117, U124, U125, U154, U161, U171, U186, U213 and U239.)

(2) The generator and owner or operator may apply for an exemption from section (1) of this rule for a specific waste if he can demonstrate that:

(a) The disposal will not pose a threat to public health or the environment due to the properties or quantity of the waste, characteristics

of the landfill, the proposed disposal procedure and other relevant circumstances;

(b) The waste generator has taken all practicable steps to eliminate or minimize the generation of the waste and to recover, concentrate or render the waste non-hazardous; and

(c) There is no reasonably available means of beneficial use, reuse, recycle, reclamation or treatment.

(3) Upon receipt of a request for an exemption, the Department shall make a tentative determination to approve or deny the request within thirty (30) days of receipt. The generator and owner or operator shall have thirty (30) days from the date of tentative denial to appeal the denial to the Department. The Department shall make a final determination within ninety (90) days of the original request if a timely appeal has been filed.

(Comment: The intention of this rule is to disallow the landfilling of solids formed by soil stabilization of liquids. This rule does not pertain to liquids which become mixed with soil or other debris as the result of a spill or to lab packs as defined in 40 CFR 264.316.)

Procedure for prohibiting the land disposal of any hazardous waste.

340-104-339 (1) The Department may prohibit the land disposal of any hazardous waste if in the Department's judgment there are more environmentally sound beneficial use, reuse, recycle, reclamation, treatment or disposal options. In making such a judgment, the Department shall consider but not be limited to storage, transportation and other appropriate risks.

(2) For wastes identified under section (1) of this rule, the

Department shall notify any affected generators and land disposal owners or operators, in writing, that land disposal of a specified waste is prohibited. Such notice shall indicate the specific waste affected by name and EPA Hazardous Waste Number, and shall also indicate the alternative means of beneficial use, reuse, recycle, reclamation, treatment or disposal deemed to be more environmentally sound. The Department shall provide that the prohibition is effective for the waste listed in the notice 90 days after receipt of notice. The generator or disposal facility shall have 30 days from receipt of the notice to appeal the prohibition to the Department. The Department shall make a final determination within 60 days of the original notice if a timely appeal has been filed.

Applicability to incinerators.

340-104-340 The provisions of 40 CFR 264.340(d) are deleted.

(Comment: The Department may require the owner or operator to obtain an Air Contaminant Discharge Permit and such permit may establish standards more stringent than required under Subpart O of 40 CFR Part 264.)

Performance standards.

340-104-343 The provisions of 40 CFR 264.343(d) are deleted.

DIVISION 105
HAZARDOUS WASTE MANAGEMENT

Management Facility Permits

- 340-105-001 Purpose, scope and applicability.
- 340-105-003 Considerations under Federal law.
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- 340-105-051 Continuation of expiring permits.
- 340-105-061 Emergency permits.
- 340-105-100 Letter of authorization for small-quantity management facilities.
- 340-105-110 Permit fees.
- 340-105-115 Interim status.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose, scope and applicability.

340-105-001 (1) The purpose of this Division is to establish basic permitting requirements, such as application requirements, standard permit conditions, monitoring and reporting requirements, and management requirements for existing facilities which have not been issued a RCRA permit.

(2) Persons must also consult 40 CFR Parts 260-266, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) The provisions of section (3) of this rule replace the contents of 40 CFR 270.1(a), 270.1(b) and 270.1(c) prior to paragraph (c)(1).

(4)(a) Technical regulations. The hazardous waste permit program has separate additional regulations that contain technical requirements. These separate regulations are used by the Department to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR Part 264 and Division 104 of this Chapter.

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

(b) Applicability. The state hazardous waste program requires a permit for the "treatment," "storage" or "disposal" of any "hazardous waste" as identified or listed in Division 101 of this Chapter. The terms "storage," "disposal" and "hazardous waste" are defined in rule 340-100-010. The term "treatment" is defined in 40 CFR 260.10. Owners and

operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and, for any unit which closes after the effective date of these rules, during any post-closure care period required under 40 CFR 264.117 and during any compliance period specified under 40 CFR 264.96, including any extension of the compliance period under 40 CFR 264.96(c).

Considerations under Federal law.

340-105-003 The provisions of 40 CFR 270.3 are deleted.

State program reporting.

340-105-005 The provisions of 40 CFR 270.5 are deleted.

General application requirements and requirements applicable to existing management facilities.

340-105-010 (1) The requirements of sections (2), (3), (4) and (5) of this rule replace the provisions of 40 CFR 270.10(e) to 270.10(i) regarding application requirements.

(2) Existing management facilities. (a) Owners and operators of existing hazardous waste management facilities that do not have a permit must submit a Part A permit application to the Department within thirty days after the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit.

(b) The Department may at any time require the owner or operator of an

existing management facility to submit Part B of their permit application. The owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing management facility may voluntarily submit Part B of the application at any time.

(c) An owner or operator that has not submitted an acceptable Part A permit application, or an acceptable Part B permit application when required to do so, or does not operate in compliance with the regulations of 40 CFR Part 265, as required by this rule, shall be subject to Department enforcement action including termination of the facility's operation.

(d) If an owner or operator of an existing management facility has filed a Part A permit application but has not yet filed a Part B permit application, the owner or operator shall file an amended Part A application:

(A) No later than 15 days after the effective date of the adoption of rules listing or designating wastes as hazardous if the facility is treating, storing or disposing of any of those newly listed or designated wastes; or

(B) Prior to any of the following actions at the facility:

(i) Treatment, storage or disposal of a new hazardous waste not previously identified in Part A of the permit application;

(ii) Increases in the design capacity of processes used at a facility. The owner or operator must submit a justification explaining the need for the increase based on the lack of available treatment, storage or disposal capacity at other hazardous waste management facilities, and receive Department approval before making such increase.

(iii) Changes in the processes for the treatment, storage or disposal

of hazardous waste. The owner or operator must submit a justification explaining that the change is needed because:

(I) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(II) It is necessary to comply with the requirements of Divisions 100 to 108.

The owner or operator must receive Department approval before making such change.

(iv) Changes in the ownership or operational control of a facility. The new owner or operator must submit a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of Subpart H of 40 CFR Part 265 (financial requirements), until the Department has released him in writing. The Department shall not release the old owner or operator until the new owner or operator has demonstrated to the Department that he is complying with that Subpart. All other duties required by these rules are transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(e) In no event shall changes which amount to reconstruction of the facility be made to an existing hazardous waste management facility which has not been issued an effective RCRA permit. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable, entirely new hazardous waste management facility.

(3) New management facilities. (a) No person shall begin physical construction of a new management facility without having submitted Part A and Part B of the permit application and having received a finally

effective hazardous waste permit.

(b) An application for a permit for a new management facility (including both Part A and Part B) may be filed with the Department any time after promulgation of those standards in Division 104 applicable to such facility. All applications must be submitted at least 180 days before physical construction is expected to commence.

(4) Reapplication. Any management facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(5) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under 40 CFR 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

(6) The requirements of section (6) are applicable to existing management facilities.

(a) An owner or operator of an existing management facility that has not been issued a management facility permit shall comply with the regulations of 40 CFR Part 265 until final administrative disposition of a permit is made.

(b) After September 1, 1985, and until final administrative disposition of a permit under these rules is made, an owner or operator of a management facility that has received a State-issued non-RCRA permit shall comply with the regulations of 40 CFR Part 265 in those instances where a regulation exists and with the conditions of the permit in those instances where a regulation does not exist.

(7) After final administrative disposition of a permit is made, a management facility shall not treat, store or dispose of hazardous waste without a permit issued in accordance with Divisions 100 to 106.

Confidentiality of information.

340-105-012 (1) The provisions of this rule replace the provisions of 40 CFR 270.12.

(2) In accordance with ORS 192.500 and 459.460, any information submitted to the Department pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information," or the equivalent, on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in ORS 192.500 and 459.460.

(Comment: Any information stamped confidential must be accompanied by an explanation as to why it should be so considered under the criteria of ORS 192.500 and 459.460. The Department believes that very little, if any, information in an application will meet the criteria.)

(3) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) Any information submitted to the Department shall be available to the Environmental Protection Agency upon request. If the information has been submitted under a claim of confidentiality, the Department shall make that claim of confidentiality to the Environmental Protection Agency for the requested information. The federal agency shall treat the information

that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

Contents of Part A of the permit application.

340-105-013 In addition to the requirements of 40 CFR 270.13, Part A of the permit application shall include a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals.

Contents of Part B.

340-105-014 In addition to the information required by 40 CFR 270.14, Part B of the permit application shall include other information pertinent to the facility as may be requested by the Department.

Specific Part B information requirements for land treatment facilities.

340-105-020 The requirements of 40 CFR 270.20(d) and (e) are applicable to animal feed crops.

(Comment: The Department does not allow food-chain crops to be grown in or on the treatment zone of a hazardous waste land treatment unit.)

Specific Part B information requirements for landfills.

340-105-021 In addition to the information required by 40 CFR 270.21, the following additional information shall be submitted in a Part B application:

(1) A detailed report with supporting information justifying the need for the landfill as proposed; and

(2) An explanation of how the requirements of rule 340-104-314 will be complied with after January 1, 1985.

Conditions applicable to all permits.

340-105-030 (1) The phrase ". . . the appropriate Act . . ." in the second sentence of 40 CFR 270.30(a) is deleted and replaced with the phrase ". . . ORS Chapter 459 and OAR Chapter 340 . . ."

(2) The provisions of 40 CFR 270.30(1)(2)(ii)(B) are deleted.

(3)(a) The provisions of 40 CFR 270.30(1)(3) are deleted and replaced with subsection (3)(b) of this rule.

(b) Transfers. The permit is personal to the permittee and is non-transferable. A new owner or operator shall comply with the requirements of 340-105-010(2)(d)(B)(iv).

(4)(a) The provisions of 40 CFR 270.30(1)(6)(i) preceding 270.30(1)(6)(i)(A) are deleted and replaced with subsection (4)(b) of this rule.

(b) Immediate reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment as soon as he becomes aware of the circumstances, including:

(5)(a) The provision of 40 CFR 270.30(1)(9) is deleted and replaced with subsection (5)(b) of this rule.

(b) Periodic report. A periodic report must be submitted covering facility activities on an appropriate schedule (see rule 340-104-075).

Permit transfers.

340-105-040 (1) The provisions of 40 CFR 270.40 are deleted.

(2) A permit is personal to the permittee and is non-transferrable.

(3) A new owner or operator of a facility shall comply with the requirements of 340-105-010(2)(d)(B)(iv).

Major modifications or revocation and reissuance of permits.

340-105-041 (1) The sentence "If cause does not exist under this section or 40 CFR 270.41, the Director shall not modify or revoke and reissue the permit" in the first paragraph of 40 CFR 270.41 is deleted.

(2)(a) The provision of 40 CFR 270.41(a) preceding paragraph (a)(1) is deleted and replaced with subsection (2)(b) of this rule.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(3)(a) The provisions of 40 CFR 270.41(a)(3) are deleted and replaced with subsection (3)(b) of this rule.

(b) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

(4) The provision of 40 CFR 270.41(b)(2) is deleted.

Minor modifications of permits.

340-105-042 The provisions of 40 CFR 270.42(d) are deleted.

Continuation of expiring permits.

340-105-051 (1) The provisions of 40 CFR 270.51 are deleted and replaced with sections (2) and (3) of this rule.

(2) The conditions of an expired permit continue in force until the effective date of a new permit if:

(a) The permittee has submitted a timely application under 40 CFR 270.14 and the applicable sections in 40 CFR 270.15 to 270.29 and such application is a complete (under 40 CFR 270.10(c)) application for a new permit; and

(b) The Department through no fault of the permittee, does not issue a new permit with an effective date under 40 CFR 124.15 on or before the expiration date of the previous permit (for example, when issuance is impractical due to time or resource constraints).

(3) Effect. Permits continued under this rule remain fully effective and enforceable.

Emergency permits.

340-105-061 (1) The provisions of 40 CFR 270.61(b)(4) are deleted and replaced with section (2) of this rule.

(2) May be suspended or renewal refused by the Department at any time without prior hearing if it finds a serious danger to the public health, safety or the environment and sets forth specific reasons for such findings;

Letter of authorization for small-quantity management facilities.

340-105-100 (1) Except as indicated in section (3) of this rule, owners or operators of off-site facilities that treat or store more than 200 pounds of hazardous waste per calendar month must obtain a letter of authorization from the Department if such waste is obtained only from small-quantity generators.

(2) The letter of authorization:

(a) Shall be written;

(b) Shall not exceed 5 years in duration;

(c) Shall clearly specify the hazardous wastes to be received, the treatment process, and the disposal of all hazardous products generated by that process;

(d) May require the operator to obtain Department approval prior to receipt of each specific waste;

(e) May require the operator to demonstrate that, due to the type and quantity of waste, its operation and other relevant factors, the facility is not likely to endanger public health or the environment;

(f) May be suspended or revoked at any time if it is determined that such action is appropriate to protect public health or the environment; and

(g) May include any applicable requirements of Division 104.

(3) The Department may require the owner or operator to obtain a hazardous waste permit if it determines that operation of the facility may endanger public health or the environment.

Permit fees.

340-105-110 (1) Beginning July 1, 1984, each person required to have a hazardous waste storage, treatment or disposal permit (management facility permit) shall be subject to a three-part fee consisting of a filing fee, an application processing fee and an annual compliance determination fee as listed in Table 1 of this Division. The amount equal to the filing fee, application processing fee and the first year's annual compliance determination fee shall be submitted as a required part of any application for a new permit. The amount equal to the filing fee and application processing fee shall be submitted as a required part of any application for renewal or modification of an existing permit.

(2) As used in this rule, the following definitions shall apply:

(a) The term management facility includes, but is not limited to:

(A) Hazardous waste storage facility;

(B) Hazardous waste treatment facility; and

(C) Hazardous waste disposal facility.

(b) The term hazardous wastes includes any residue or hazardous wastes as defined in Division 101 or 40 CFR Part 261 handled under the authority of a management facility permit.

(c) The term license and permit shall mean the same thing and will be referred to in this rule as permit.

(3) The annual compliance determination fee shall be paid for each year a management facility is in operation and, in the case of a disposal facility, for each year that post-closure care is required. The fee period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1. Any annual compliance determination fee submitted as part of an application for a new permit shall apply to the fiscal year the

permitted management facility is put into operation. For the first year's operation, the full fee shall apply if the management facility is placed into operation on or before April 1. Any new management facility placed into operation after April 1 shall not owe a compliance determination fee until July 1 of the following year. The Director may alter the due date for the annual compliance determination fee upon receipt of a justifiable request from a permittee.

(4) For the purpose of determining appropriate fees, each management facility shall be assigned to a category in Table 1 of this Division based upon the amount of hazardous waste received and upon the complexity of each management facility. Each management facility which falls into more than one category shall pay whichever fee is higher. The Department shall assign a storage and treatment facility to a category on the basis of design capacity of the facility. The Department shall assign a new disposal facility to a category on the basis of estimated annual cubic feet of hazardous waste to be received and an existing disposal facility on the basis of average annual cubic feet of hazardous waste received during the previous three calendar years.

(5) Where more than one management facility exists on a single site, in addition to the compliance determination fee required by rules 340-105-110(3) and (4), a flat fee of \$250 shall be assessed for each additional management facility.

(6) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes and do not require re-filing or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.

(7) Upon the Department accepting an application for filing, the filing fee shall be nonrefundable.

(8) The application processing fee, except for disposal permits, may be refunded in whole or in part when submitted with an application if either of the following conditions exist:

(a) The Department determines that no permit will be required.

(b) The applicant withdraws the application before the Department has approved or denied the application.

(9) The annual compliance determination fee may be refunded in whole or in part when submitted with a new permit application if either of the following conditions exist:

(a) The Department denies the application.

(b) The permittee does not proceed to construct and operate the permitted facility.

(10) All fees shall be made payable to the Department of Environmental Quality.

Table 1: Fee Schedule

(1) Filing Fee. A filing fee of \$50 shall accompany each application for issuance, renewal or modification of a hazardous waste management facility permit. This fee is nonrefundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between \$25 and \$5,000 shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) A new facility (including substantial expansion of an existing facility):

(A) Storage facility	\$ 150
(B) Treatment facility - Recycling	150
(C) Treatment facility - other than incineration	250
(D) Treatment facility - incineration	500
(E) Disposal facility	5,000
(F) Disposal facility - post closure	2,500

(b) Permit Renewal:

(A) Storage facility	50
(B) Treatment facility - recycling	50
(C) Treatment facility - other than incineration	75
(D) Treatment facility - incineration	175
(E) Disposal facility	5,000
(F) Disposal facility - post closure	800

(c) Permit Modification - Changes to Performance/Technical Standards:

(A) Storage facility	50
(B) Treatment facility - recycling	50
(C) Treatment facility - other than incineration	75
(D) Treatment facility - incineration	175
(E) Disposal facility	1,750
(F) Disposal facility - post closure	800

(d) Permit Modification - All Other Changes not Covered by (2)(c):

All categories 25

(e) Permit Modifications - Department Initiated . no fee

(3) Annual Compliance Determination Fee. (In any case where a facility fits into more than one category, the permittee shall pay only the highest fee):

(a) Storage facility:

- (A) 5-55 gallon drums or 250 gallons
total or 2,000 pounds 250
- (B) 5 to 250 - 55 gallon drums or 250
to 10,000 gallons total or 2,000
to 80,000 pounds 1,000
- (C) >250 - 55 gallon drums or >10,000
gallons total or >80,000 pounds 2,500

(b) Treatment Facility:

- (A) <25 gallons/hour or 50,000 gallon/day
or 6,000 pounds/day 250
- (B) 25-200 gallons/hour or 50,000 to
500,000 gallons/day or 6,000 to
60,000 pounds/day 1,000
- (C) >200 gallons/hour or >500,000
gallons/day or >60,000 pounds/day . . . 2,500

(c) Disposal Facility:

- (A) <750,000 cubic feet/year or
 <37,500 tons/year \$ 50,000
- (B) 750,000 to 2,500,000 cubic feet/year
 or 37,500 to 125,000 tons/year 100,000
- (C) >2,500,000 cubic feet/year or
 >125,000 tons/year 150,000

(d) Disposal Facility - Post Closure:

All categories 5,000

Interim status.

340-105-115 The provisions of 40 CFR 270.70 to 270.73, pertaining to interim status, are not included in the State's hazardous waste management program.

(Comment: State requirements applicable to existing hazardous waste management facilities are identified in rule 340-105-010 and include provisions analogous to those of 40 CFR 270.71 and 270.72.)

DIVISION 106
HAZARDOUS WASTE MANAGEMENT

Permitting Procedures

- 340-106-001 Purpose and scope.
- 340-106-002 Requirements not applicable.
- 340-106-003 Recommendations by State agencies on waste disposal facility applications.
- 340-106-004 Application review.
- 340-106-005 Modification, revocation and reissuance, or termination of permits.
- 340-106-006 Draft permits.
- 340-106-012 Public hearings on disposal facility draft permits.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440; and 183.

Purpose and scope.

340-106-001 (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.

(Comment: 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, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(Comment: 40 CFR Part 124 includes requirements applicable to several programs, including UIC, NPDES, 404, etc. Only the provisions of 40 CFR Part 124 Subpart A which are applicable to hazardous waste or "RCRA" permits are incorporated by reference in rule 340-100-002, as modified by Division 106.)

Requirements not applicable.

340-106-002 The provisions of 40 CFR 124.1, 124.4, 124.9, 124.11(e), 124.13, 124.14(c), 124.15(b), 124.16, 124.17(b), 124.18, 124.19, 124.20 and 124.21 are deleted and not part of Division 106.

Recommendations by State agencies on waste disposal facility applications.

340-106-003 (1) In addition to the requirements of 40 CFR 124.3 applicable to RCRA permits, the provisions of section (2) of this rule shall be followed.

(2) The Commission shall cause copies of disposal site applications to be sent to affected state agencies, including the Health Division, the Public Utility Commissioner, the State Fish and Wildlife Commission and the Water Resources Director. Each agency shall respond by making a recommendation as to whether the permit should be granted. If the Health Division recommends against granting the permit, the permit must be denied. Recommendation from other agencies shall be considered as evidence in determining whether to issue the permit.

Application review.

340-106-004 The requirements of 40 CFR 124.3 are amended as specified by sections (1), (2) and (3) of this rule.

(1) Each application from either an existing or new hazardous waste management facility for a permit will be reviewed for completeness by the Department within 60 days of its receipt.

(2) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken.

(3)(a) Upon request from a permit applicant, and following receipt of a complete Part B permit application, the Department shall prepare and mail to the applicant a project decision schedule.

(b)The schedule will specify target dates by which the Department

intends to:

- (A) Prepare a draft permit;
- (B) Issue public notice;
- (C) Complete the public comment period; and
- (D) Issue a final permit.

Modification, revocation and reissuance, or termination of permits.

340-106-005 (1) The provisions of 40 CFR 124.5(b) are deleted and replaced with subsections (1)(a), (b) and (c) of this rule.

(a) If the permitting body decides the request is not justified, it shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment or hearings.

(b) Denials by the Department may be appealed to the Commission by a letter briefly setting forth the relevant facts. The Commission may direct the Department to begin modification, revocation and reissuance, or termination proceedings under 40 CFR 124.5(c). The appeal shall be considered denied if the Commission takes no action on the letter within 60 days after receiving it. This appeal is a prerequisite to seeking judicial review of Department action in denying a request for modification, revocation and reissuance, or termination.

(c) Denials by the Commission are subject to judicial review under ORS 183.480.

(2) The provisions of 40 CFR 124.5(e), (f) and (g) are deleted.

Draft permits.

340-106-006 The requirements of 40 CFR 124.6(e) are modified by deleting the sentence "For RCRA, UIC or PSD permits, . . . under 124.74."

Public hearings on disposal facility draft permits.

340-106-012 In addition to the provisions of 40 CFR 124.12, the requirements of sections (1) and (2) of this rule are applicable to hazardous waste disposal facilities.

(1) The Commission shall conduct a public hearing in the county or counties where a proposed hazardous waste disposal site is located and may conduct hearings at such other places as the Department considers suitable. At the hearing, the applicant may present the application and the public may appear or be represented in support of or in opposition to the application.

(2)(a) Prior to holding hearings on a hazardous waste disposal site license application, the Commission shall cause notice to be given in the county or counties where the proposed site is located in a manner reasonably calculated to notify interested and affected persons of the license application.

(b) The notice shall contain information regarding the approximate location of the site and the type and amount of materials intended for disposal at such site, and shall fix a time and place for a public hearing. In addition, the notice shall contain a statement that any person interested in or affected by the proposed site shall have opportunity to testify at the hearing.

DIVISION 108
HAZARDOUS WASTE MANAGEMENT

Spills and Other Incidents

Subdivision A: General

- 340-108-001 Purpose and applicability.
- 340-108-002 Definitions.

Subdivision B: Liability

- 340-108-010 Liability.

Subdivision C: Required Action

- 340-108-020 Emergency action, reporting.
- 340-108-021 Cleanup report.

Authority: ORS Chapter 468, including 468.020; 459, including 459.440;
and 183.

Subdivision A: General

Purpose and applicability.

340-108-001 (1) The purpose of this Division is to specify the emergency procedures required to respond to a spill or other incident involving a hazardous waste or hazardous substance.

(2) The regulations of this Division apply to all persons whose actions cause or allow to be caused a hazardous waste or hazardous substance spill or other incident; except that

(3) Spills and other incidents occurring on the site of a generator who accumulates hazardous waste or in a hazardous waste treatment, storage or disposal facility shall be managed in accordance with the contingency plan [prepared in accordance with Subdivision D of Division 104] and emergency procedures requirements of Subpart D of 40 CFR 265.

(4) Oil spilled in an area that may allow it to reach any waters of the state shall also be managed in accordance with ORS Chapter 468 and OAR Chapter 340, Division 47.

Definitions.

340-108-002 As used in this Division unless otherwise specified:

"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.

"Hazardous substance" means any substance intended for use which

may also be identified as hazardous pursuant to Division 101.

"Hazardous waste" means a hazardous waste as defined in rule 340-[101-003]100-010.

"Oil" means oil, including gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.

"Other incident" includes but is not limited to the actual or imminent possibility of a dangerous uncontrolled reaction, the release of leachate, noxious gases or odors, fires, explosion or other disposal which may endanger public health or the environment.

"Modified Spill Prevention Control and Countermeasure (SPCC) Plan" means the plan to prevent the spill of oil from a non-transportation-related facility that has been modified to include those hazardous substances and hazardous wastes handled at the facility.

"Spill" means unauthorized disposal.

"Waters of the state" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Subdivision B: Liability

Liability.

340-108-010 (1) Any person having the care, custody or control of a hazardous waste or a hazardous substance, who causes or permits the disposal of that waste or substance in violation of law or otherwise than as reasonably intended for normal use or handling of such waste or substance, including but not limited to spills or other incidents, shall be liable for the damages to person or property, public or private, caused by the disposal.

(2) It shall be the obligation of such person to collect, remove or treat the waste or substance immediately, subject to the requirements of Divisions 100 to 108 and such direction as the Department may give.

(Comment: [Rule 340-105-001(2)(c)] 40 CFR 264.1(g) states that a permit is not required for treatment or containment activities taken during immediate response to a spill or other incident.)

(3) If such person fails to collect, remove or treat the waste or substance when under an obligation to do so, the Department will take action as is necessary to collect, remove or treat the waste or substance.

(4) The Department will keep a record of all necessary expenses incurred in carrying out any cleanup projects or activities, including reasonable charges for services performed and equipment and materials utilized.

(5) Any person who fails to collect, remove or treat the waste or substance immediately, when under an obligation to do so, shall be responsible for the necessary expenses incurred by the State in carrying out a cleanup project or activity authorized by the Department.

(6) If the amount of state-incurred expenses are not paid to the Department within 15 days after receipt of notice that expenses are due and owing, the Attorney General, at the request of the Department, shall bring an action in the name of the State of Oregon in any court of competent jurisdiction to recover the amount specified in the final order of the Department.

Subdivision C: Required Action

Emergency action, reporting.

340-108-020 In the event of a spill or other incident, the person having the care, custody, or control of the hazardous waste or hazardous substance shall take the following actions, as appropriate:

(1) Immediately implement the site modified SPCC plan or other applicable contingency plan.

(Comment: Generators [storing] accumulating hazardous waste for less than 90 days are required to have a contingency plan prepared in accordance with [rule 340-102-034] 40 CFR 262.34.)

(2) If a contingency plan is not otherwise required [or available] by Divisions 100 to 110, immediately take the following actions in the order listed:

(a) Activate alarms or otherwise warn persons in the immediate area;

(b) Undertake every reasonable method to contain the hazardous substance or hazardous waste;

(c)(A) Report the spill or other incident to the Oregon Emergency Management Division (telephone 800-452-0311) if the amount of hazardous waste or hazardous substance exceeds the following reportable quantity (in the event a substance or waste falls into more than one category, the lower quantity shall be reported):

<u>Substance or Waste Type</u>	<u>Reportable Quantity (pounds)</u>
Ignitable, [rule 340-101-021] <u>40 CFR 261.21</u>	200
Corrosive, [rule 340-101-022] <u>40 CFR 261.22</u>	200
Reactive, [rule 340-101-023] <u>40 CFR 261.23</u>	200
EP Toxic, [rule 340-101-024] <u>40 CFR 261.24</u>	10

Listed, [rule 340-101-031 and -032]	10
<u>40 CFR 261.31 and .32</u>	
Listed, [rule 340-101-033(1)(a) and (2)(a)]	2
<u>40 CFR 261.33(e)</u>	
Listed, [rule 340-101-033(1)(b), (2)(b) and (3)(a)]	10
<u>40 CFR 261.33(f)</u>	
Listed, rule 340-101-033	10
[Pesticide, rule 340-101-034	10]
PCB, rule 340-110-001(2)	10

(Comment: "Ignitable" includes the DOT classifications "Flammable," "Oxidizer," and some "Combustible.")

(B) Transporters must report spills of any quantity that occur during transportation. Transporters must also report spills or other incidents to the National Response Center (800-424-8802) as required by 49 CFR 171.15, and, if a water transporter, as required by 33 CFR 153.203;

(C) The spill or other incident need not be reported if:

(i) It occurs on private property and is known to the owner of the property (or his representative);

(ii) It occurs on an impervious surface where it is fully contained;

and

(iii) It is completely cleaned up without further incident.

(Comment: For reporting purposes, quantity calculation involving hazardous waste shall be made independent of the concentrations of the hazardous components. For example, the table in this rule requires reporting a 10 pound spill of acrolein (a rule 340-101-033[(3)(a)] waste). This shall be interpreted as requiring reporting a 10 pound spill of a waste containing acrolein whether the concentration of acrolein is 3, 30 or 100%.)

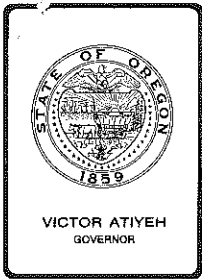
(d) Undertake, in the most practicable manner, the collection, removal or treatment of the hazardous substance or hazardous waste in accordance with the requirements of Divisions 100 to 110 and in a manner that will

minimize damage to the environment. The Department may, in any case, evaluate the action taken and may require additional action to complete the cleanup and disposal.

Cleanup Report

340-108-021 The Department may require the person responsible for a spill or other incident to submit a written report within 15 days of the spill or other incident describing all aspects of the spill and steps taken to prevent a recurrence.

(Comment: Transporters are also required by the Public Utility Commissioner to file a Hazardous Materials Incident Report (DOT Form F5800.0) within 15 days after a spill. A copy of this report may be sent to the Department in lieu of the report required by this rule.)



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. N, July 19, 1985, EQC Meeting

Variance Request from EPA to Operate Helicopters in Excess of Noise Emission Standards of OAR 340-13-020 to Obtain Water Samples from 32 Wilderness Area Lakes

Background

The Federal Environmental Protection Agency (EPA) is conducting a national surface water survey (NSWS) to evaluate and gain baseline data on the sensitivity to acid deposition (acid rain) in lakes and streams. The survey began in the fall of 1984 when over 2,000 lakes were sampled in eastern United States. EPA wishes to survey lakes in western United States in the fall of 1985.

The western survey contemplates sampling 888 lakes of which 425 are located in federally designated Wilderness Areas and 73 are located within national park areas not designated as Wilderness Areas. The Oregon portion of the survey would affect 64 lakes, of which 32 are located within 9 different Wilderness Areas.

The federal Wilderness Act of 1964 prohibits the use of any motorized equipment and the landing of aircraft within the areas except under very special circumstances that may be authorized by the U.S. Forest Service. Oregon standards for Wilderness Areas (OAR 340-13) establish air, water, and noise emission standards for any activity, except emergency and recreational, within a federal Wilderness Area. See Attachment 1.

EPA's preferred method to conduct the lakes survey is to use helicopters to fly into all of the 64 Oregon lakes contained in the survey. The helicopter would land on the surface of the lake, remain for approximately 20 minutes with the engine running, and depart. EPA claims the sampling operation would not exceed air or water emission standards of the rule but the noise standard would be violated. Thus, EPA has requested a variance from the noise emission standards contained in OAR 340-13-020. As the U.S. Forest Service has denied EPA's request to access all Wilderness Area lakes by helicopter, EPA has agreed to modify its proposal. They now plan to use a

combination of helicopters and ground crews to conduct the survey. However, as they have contingency plans to address potential delays during the sampling window, EPA is requesting a variance to access all 32 Oregon Wilderness Area lakes by helicopter. Attachments 2 and 3 contain EPA's request under the original plan and the revised plan that address concerns raised by the Forest Service. Attachment 4 is the agreement reached between EPA and the Forest Service.

The Commission is authorized to grant variances from noise emission standards pursuant to ORS 467.060 as referenced below:

ORS 467.060 Issuance, revocation or modification of specific variances; grounds.

1. The Environmental Quality Commission by order may grant specific variances from the particular requirements of any rule or standard to such specific persons or class of persons or such specific noise emission source, upon such conditions as it may consider necessary to protect the public health, safety and welfare. The specific variance may be limited in duration. The Commission shall grant a specific variance only if it finds that strict compliance with the rule or standard is inappropriate because:
 - a) Conditions exist that are beyond the control of the persons applying for the variance;
 - b) Special circumstances render strict compliance unreasonable, unduly burdensome or impractical due to special physical conditions or cause;
 - c) Strict compliance would result in substantial curtailment or closing down of a business, plant, or operation; or
 - d) No other alternative facility or method of operating is yet available.
2. The Commission, by rule, may delegate to the Department of Environmental Quality, on such conditions as the Commission may find appropriate, the power to grant variances and to make the finding required by subsection (1) of this section to justify any such variance.
3. In determining whether or not a variance shall be granted, the Commission or the Department shall consider the equities involved and the advantages and disadvantages to residents and to the person conducting the activity for which the variance is sought.

4. A variance may be revoked or modified by the Commission. The Commission may revoke or modify a variance if it finds:
 - a) Violation of one or more conditions of the variance;
 - b) Material misrepresentation of fact in the variance application or other representations of the variance holder;
 - c) Material change in any of the circumstances relied upon by the Commission or Department in granting the variance; or
 - d) A material change or absence of any of the circumstances set forth in paragraphs (a) to (d) of subsection (1) of this section.

5. The procedure for denial, modification, or revocation of a variance shall be the procedure for a contested case as provided in ORS 183.310 to 183.550.

Alternatives

EPA has prepared an Environmental Assessment (EA) document on the proposed lake sampling program for the western United States. The EA evaluates four alternatives. Alternative 1 would access all western lakes with helicopters. In order to use this alternative, EPA sought approval from the U.S. Forest Service to waive the prohibition from the use of motorized equipment in Wilderness Areas. In addition, in Oregon, EPA must obtain a variance from the Wilderness Area noise emission standards as helicopter sampling would violate this standard. Attachment 5 lists the 32 Oregon Wilderness Area lakes in this proposed survey.

EPA estimates the cost of the western U.S. lakes study under Alternative 1 would be 3.9 million dollars.

Alternative 2 would access Wilderness Area lakes by horse or on foot while helicopters would be used to sample non-Wilderness Area lakes. EPA estimates Alternative 2 to cost 7.0 million dollars.

Alternative 3 would use ground access to those Wilderness Area lakes from which samples could be ground transported to a helicopter located outside the Area, within a seven hour period. Helicopters would be used to access lakes in Wilderness Areas where distance or difficulties of access would prevent samples from being transported to a helicopter landing site within seven hours. In Oregon, EPA estimates that 8 Wilderness Area lakes would be sampled using helicopters under this alternative. Attachment 6 provides details on accessibility of these 8 lakes. Alternative 3 is estimated to cost 5.2 million dollars.

Alternative 4 is the "no action" option and no lakes would be sampled within Wilderness Area boundaries.

Since the preparation and public comment on the Environmental Assessment, the U.S. Forest Service has ruled against Alternative 1 described above. An agreement (Attachment 4) has been reached between EPA and the Forest Service to complete the study in Wilderness Areas with very limited use of helicopters. This agreement, similar to Alternative 3 described above, would use Forest Service ground crews to sample Wilderness Area lakes.

Approximately 10 ground crews of 4 members per crew, would access the Oregon Wilderness Area lakes. All samples will be delivered to a laboratory within the same day. The laboratories will operate 24 hours per day to process the samples in a timely manner.

Under the Forest Service agreement, EPA believes a comparability study is needed to determine whether ground accessed data and helicopter accessed data is comparable and thus acceptable to be included in the results of the study. EPA plans to include three lakes in the comparability study that would be sampled by both air and ground access. Attachment 7 lists those lakes in the comparability study. However, if data results show a lack of comparability, the Forest Service agrees that helicopter access is approved for resampling of all lakes in the future.

The EPA - Forest Service agreement would also allow helicopter access to a yet undetermined number of lakes that are "in the flight pattern to the lakes in the comparability study." These lakes would otherwise be overflown and thus, for convenience, they agree that helicopter access and sampling is justified.

EPA is also concerned that some additional lakes will need to be sampled by helicopter if fall weather conditions are severe enough to make ground access sampling unsafe. The present schedule would sample Cascades lakes from October 11th to October 17th and eastern Oregon lakes from September 21st to October 2nd. EPA has no estimate on how many lakes, nor which specific lakes, could require helicopter access due to severe weather conditions. However, these lakes would only be approved on a lake-by-lake request to the Regional Forester. In addition, if ground sampling falls behind schedule for other reasons, the Regional Forester could approve the use of helicopters to some additional lakes. Therefore, EPA has requested a variance to exceed the noise standards at all 32 Wilderness Area lakes under this scenario.

Evaluation

EPA's sampling protocol (procedures) to measure the chemical composition of the lakes is based on the need to conduct a laboratory analysis of the sample within 12 hours after sampling. As the desired analysis of the sample must be conducted at a laboratory, the alternatives considered are designed to meet this time criteria. If the 12 hour hold time is modified, EPA claims the resulting data will not meet quality assurance criteria and results would not be satisfactory in terms of precision, accuracy, freedom from contamination, and comparability. Under the current agreement between

EPA and the Forest Service, it now appears that samples will either meet the 12 hour hold criteria or be within an acceptable variance from this criterion.

Twenty-one chemical variables, as well as color and turbidity were selected to be measured to evaluate the present status of and future effects on sensitive lakes. Three chemical variables, pH, dissolved inorganic carbon and extractable aluminum appear to be the most important of this study and are sensitive to the 12 hour hold time criteria.

If it is determined that sample hold times must exceed the existing 12 hour criteria, EPA claims that new sampling protocol must be developed. This redesign of the analysis methods could result in a postponement of the survey until at least 1986.

A critical factor in the design and implementation of this survey is the need to sample lakes when they are unstratified. This occurs in the late fall "turnover." Thus, samples may only be taken from this "turnover" time before the lake freezes. Normally, this is about a five week window beginning in September until mid-October. As EPA plans to sample 888 lakes in the West (425 Wilderness Area lakes), the amount of time available to conduct this study is relatively short.

The Department agrees that the data gained from this study is desirable and at a minimum would provide baseline information on sensitivity to acid deposition in Oregon lakes. Although EPA and the U.S. Forest Service have the principal responsibility under the Clean Air Act to protect Wilderness Areas, the Department and general public are concerned about protecting sensitive lakes from acid deposition. As very little water quality data now exists for these remote areas of Oregon, the EPA study provides an excellent opportunity to obtain data that is not now available.

Many lakes in Oregon appear to be very sensitive to acid deposition. The survey is designed to sample lakes within three alkalinity classifications. Lakes were randomly selected with a resulting sample set of approximately one-half located in Wilderness Areas. The larger proportion of Wilderness Area lakes are in the lowest alkalinity class which means that these lakes are the most sensitive to acid deposition. Thus, EPA believes the survey must include the Wilderness Area lakes rather than substitute sample lakes outside these designated areas. Attachment 8 shows the number of lakes in each alkalinity class.

Noise impacts due to operations of helicopters in Wilderness Areas will greatly exceed the established standards of OAR 340-13-020. This rule limits noise emissions to 50 dBA at 50 feet from the source. The Commission may authorize the Department to issue a permit to sources that exceed 50 dBA but do not exceed 75 dBA at the 50 foot distance.

EPA anticipates the survey will likely be conducted with a Bell 206L "Long Ranger" helicopter. This helicopter has one turbine engine of 370 horsepower and has a capacity of 3,999 pounds. It appears that this helicopter produces noise emission levels similar, and often quieter, than others with approximately the same capacity. However, this helicopter is recognized as one that produces an annoying "blade slap" sound. This sound can be somewhat reduced by a skilled pilot or EPA suggests it "might" require the contractor to use a 4-bladed main rotor helicopter that would reduce the "blade slap" sound.

EPA claims the Bell 206L helicopter will produce sound levels of approximately 90 dBA at 500 feet during landing. This translates to 110 dBA at 50 feet and thus would exceed the 50 dBA standard by 60 dBA (subjectively 64 times louder) and exceed the 76 dBA maximum permit limit by 35 dBA.

During the water sampling period of approximately 20 minutes, the helicopter would remain running at either a reduced idle or full idle depending upon engine cooling demands. At reduced idle, sound levels of 76 to 86 dBA at 50 feet can be expected and 86 to 94 dBA at 50 feet under full engine idle.

EPA projects that helicopters will fly into and out of Wilderness areas at altitudes between 2,000 and 3,000 feet above ground level. These procedures are not typical for most helicopter operations, however, if this criteria can be met without exceeding operating altitudes of the helicopter, noise impacts could be reduced.

Ambient sound levels in Wilderness Areas will likely range as low as 10 to 20 dBA. It is possible for the human ear to detect intruding sounds at, and often below, the level of the background ambient sound. The Department believes the Bell 206L produces approximately 60 dBA at 2,000 to 3,000 feet above ground during level flight. Depending upon terrain and a number of other factors, the approaching and departing helicopter will be detected by anyone on the ground as far away as approximately five miles. Intrusions of helicopter noise into the background sound will be significant even when the observer is only near the overhead flight path. If helicopter noise levels approach 60 dBA (direct fly over), normal conversation will be disrupted. If the observer is located near a lake being sampled, levels of 90 dBA during approach can be expected and continuous levels of 56 to 74 dBA during the twenty minute sampling period can be expected at an observer 500 feet from the helicopter. These levels would also impact conversation as well as causing significant intrusions into the extremely quiet ambient sound levels of these areas. Although impacts would occur over a relatively short period of time, some individuals may find the impacts stressful as many visitors expect to find an absence of the pressures and distractions of the everyday environment in these areas.

A major issue that many interest groups have addressed is the precedence that could be established by allowing motorized activity in Wilderness Areas. EPA believes this survey is very unique and thus would severely limit the ability of others to use the survey as precedence for justifying other Wilderness Area entries with motorized equipment. A number of comments EPA has received in response to its Environmental Assessment document disagree with EPA on the precedence issue and therefore, have recommended against the use of helicopters in Wilderness Areas to conduct the survey.

EPA selected Alternative 1 (helicopters only) as the preferred option; however, the denial of this option by the U.S. Forest Service has resulted in a preferred option that combines ground and helicopter access to Wilderness Areas. This option would likely sample 3 lakes by helicopter and those additional lakes requested to be sampled because they are on the same flight path to one of those selected for the comparability study. However, all 32 lakes could be sampled by helicopter under this request depending on weather conditions during the fall sampling period or other unforeseen factors affecting the schedule. EPA believes the Commission should grant a variance from the Oregon Wilderness Area noise standards because "special circumstances render strict compliance unreasonable, unduly burdensome, or impractical due to special physical conditions or cause;" [OAR 467.030(1)(b)].

The Department concurs with EPA's request because the benefit of the vital baseline data from these Wilderness Area lakes outweighs the transitory noise impacts generated by the helicopter operations. In order to further mitigate noise impacts in these areas staff believes several conditions should be incorporated into any approval of a request to allow helicopter operations in Wilderness Areas.

Staff does not believe helicopters should be used to access additional lakes during the comparability study because of the convenience that some lakes may be on the flight path to or from the three lakes identified in the comparability study. In addition, staff is concerned that helicopters are to be used to resolve schedule delays. It is recommended that helicopter access of any lakes, in excess of the three identified in the comparability study, are only authorized after the Department has reviewed and approved each request on a case-by-case basis to determine the need for helicopter use.

Access and egress flight paths should be charted to avoid recognized hiking trails, campgrounds, and sensitive wildlife habitat areas. The Department should review and approve these flight paths.

Helicopters should operate at maximum altitudes to minimize noise impacts when operating in Wilderness Areas.

A number of large game hunters can be expected to be using Wilderness Areas during the time period of the survey. EPA should coordinate with the Oregon Department of Fish and Wildlife to avoid, as much as possible, times and areas of hunting activity.

The helicopter type selected for use in the Oregon Wilderness Areas should be reviewed and approved by the Department.

Summation

1. EPA has requested a variance from the noise pollution rules for Wilderness Areas to collect water samples from 32 lakes to evaluate sensitivity of acid deposition.
2. The survey would sample 888 lakes in the western United States during a period between early September and mid-October 1985. The relatively short sampling window is necessary as samples must be taken after lakes are unstratified and before freezing.
3. The Oregon survey would sample a total of 64 lakes of which 32 are located in 9 different federally designated Wilderness Areas that are subject to the Department's rules for Wilderness Areas.
4. EPA originally proposed to collect samples by accessing all lakes by helicopter by landing on the lake surface, sampling for a period of approximately 20 minutes with the engine operating, and departing.
5. Alternatives have been evaluated that would use combinations of horses, hikers, and helicopters to access Wilderness Area lakes. If any of the alternative access methods were approved, EPA claims it would need to address factors such as the difference between helicopter and boat sampling.
6. EPA has applied to the U.S. Forest Service to permit helicopter operations in Wilderness Areas due to the prohibition of motorized equipment and aircraft landing in these areas under the federal Wilderness Act of 1964.
7. The Forest Service denied EPA's request to sample all Wilderness Area lakes by helicopter but has approved a sampling plan that would allow access to 3 lakes by helicopter to conduct a ground versus air access comparability study and to additional lakes that are found to be on the flight paths to and from those in the study. The agreement would also allow helicopter access of the balance of the 32 lakes if weather conditions preclude safe ground access or other factors occur that could affect the schedule. This scenario is now EPA's requested survey plan.

8. The Department supports the need for baseline data on the sensitivity of acid deposition in Oregon lakes. As many of the most sensitive lakes in Oregon are located in Wilderness Areas, it is necessary that they be included in the survey.
9. The helicopter likely to be used in the survey would exceed the 50 dBA at 50 feet noise emission limit by approximately 60 dBA (110 dBA at 50 feet) during approach and landing on the lake.
10. During the sampling period of approximately 20 minutes, the helicopter would remain running and produce noise levels of 76 to 94 dBA at 50 feet depending on required idle speeds.
11. Due to the low background (ambient) sound levels encountered in Wilderness Areas, the operations of helicopters would be intrusive during all audible times which is likely to occur within a five mile radius of its flight path.
12. Noise impacts to persons in the area of sampled lakes will include interference with conversation and stress effects during the relatively short sample period.
13. Noise may also impact hunters and game during stalking as most animals would become frightened or startled by such noise. These impacts would be transitory and hunting could resume after a short time.
14. An issue of major concern to many conservation and natural resource groups is the precedence that could be established by allowing motorized equipment into Wilderness Areas. However, the decision to allow access into the Areas has been made by the U.S. Forest Service.
15. Special circumstances render strict compliance unreasonable, unduly burdensome, or impractical because:
 - a) Helicopter access is the most effective method, at this time, to ensure data quality and comparability are acceptable; and
 - b) Although noise impacts would be significant, they are balanced against the limited number of people likely to be using the areas during the late fall period and the short period of time impacts would occur.

Director's Recommendation

Based on the findings in the Summation, it is recommended that the Commission approve a variance for EPA's proposed National Surface Water Survey of Wilderness Area lakes in Oregon using helicopters in excess of the 50 dBA at 50 feet noise emission standard of OAR 340-13-020 during September and October 1985 under the following conditions:

1. The three lakes identified as part of the comparability study may be accessed by helicopter.
2. The Director of the Department may approve helicopter access to any lake in addition to the 3 identified in item 1 above, if the Forest Service has approved access to such lake.
3. EPA must receive prior Departmental approval for helicopter access and egress flight paths to each Wilderness Area lake that may be considered for helicopter access.
4. Each lake may be accessed no more than once with a helicopter.
5. The helicopter type shall be approved by the Department.
6. The helicopter shall operate at least 3,000 feet above ground level over Wilderness Areas except during landing and takeoff procedures, unless the pilot determines such procedures would cause unsafe flight conditions.
7. EPA shall coordinate with the Oregon Department of Fish and Wildlife to avoid, as much as possible, time and areas of hunting activities.



Fred Hansen

- Attachments
1. Oregon Standards for Wilderness areas OAR 340-13
 2. EPA letter dated May 9, 1985 requesting a variance from the noise standards of OAR 340-13-020
 3. EPA letter dated June 14, 1985 describing the tentative agreement with the Forest Service
 4. EPA/Forest Service agreement
 5. Table of Wilderness Area lakes to be surveyed
 6. Table on accessibility of lakes - Alternative 3
 7. Table of lakes to be included in the comparability study
 8. Table on alkalinity class of lakes

John Hector:p
AP74
229-5989
July 2, 1985

OREGON STANDARDS FOR WILDERNESS AREAS

(Oregon Administrative Rules; Subdivision 3, Wilderness Recreational and Scenic Area Rules; Adopted January 24, 1972)

Subdivision 3

WILDERNESS, RECREATIONAL AND SCENIC AREA RULES

Environmental Standards for Wilderness Areas

[ED. NOTE: Unless otherwise specified, sections 13-005 through 13-035 of this chapter of the Oregon Administrative Rules Compilation were adopted by the Department of Environmental Quality on January 24, 1972 and filed with the Secretary of State February 15, 1972 as DEQ 35.]

13-005 STATEMENT OF POLICY. Wilderness areas represent a natural resource of unique importance. Congress has protected such areas by enacting the Wilderness Act, P.L. 88-577, 16 U.S.C. Sec. 1131, et seq. Those wilderness areas located within the geographical limits of the State are a major part of the cultural heritage of the citizens of Oregon and are a key element in developing and maintaining tourism and recreation as a viable industry. Thus, the environment of wilderness areas is deserving of the highest level of protection and safeguarding by the State in order to preserve Oregon's unique primitive and natural land areas. The Wilderness Act allows certain activities in wilderness areas. Most of these have minimal present impact on the environment. However, mining and some other activities allowed by the Wilderness Act pose a serious threat of substantial harm to the unique environment of wilderness areas.

Therefore, it is declared to be the policy and purpose of the Department of Environmental Quality to maintain the environment of wilderness areas essentially in a pristine state and as free from air, water, and noise pollution as is practically possible and to permit its alteration only in a manner compatible with recreational use and the enjoyment of the scenic beauty and splendor of these lands by the citizens of Oregon and of the United States.

13-010 DEFINITIONS. As used in these rules, unless otherwise required by context:

(1) "Commission" means the Environmental Quality Commission.

(2) "Department" means the Department of Environmental Quality.

(3) "Opacity" means the degree to which emissions reduce the transmission of light or obscure the view of an object in the background.

(4) "Wilderness Area" means an area designated as wilderness by the Congress of the United States pursuant to Public Law 88-577, 16 U.S.C., Sec. 1131, et seq.

(5) "Person" means the federal government, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate or any other legal entity whatsoever.

13-015 EMISSION PERMIT REQUIREMENTS. After the effective date of these rules:

(1) No person shall commence or initiate any activity other than emergency or recreational in a wilderness area which causes the emission of air contaminants, water pollutants or noise in excess of the standards set forth in Section 13-020 subsection (1) of these rules without first applying for and receiving a permit from the Department.

(2) The permit shall be in addition to and not in lieu of other permit requirements of federal, state or local governments.

(3) Application for the permit shall be made on form supplied by the Department. The application shall be made no less than 90 days prior to the proposed date of commencing the activity.

(4) An application for a permit may be considered at a public hearing before the Commission or its authorized representative. At least 20 days' notice of the hearing shall be provided to the applicant and to any other interested person who has requested notice.

(5) The Commission shall consider the testimony, data and views presented at the public hearing and either approve or disapprove a permit for the proposed activity according to its evaluation of whether the air, water and noise emissions from the activity are consistent with the policy and environmental standards as set forth in Section 13-005 and 13-020 of these rules.

(6) Any permit issued for an activity within a wilderness shall be properly conditioned to achieve the policy objectives and environmental standards of Sections 13-005 and 13-020 of these rules and may be modified by the Department after a hearing before the Commission or its authorized representative.

13-020 ENVIRONMENTAL STANDARDS. (1) Except as provided in subsection (2) of this section, no person engaged in an activity other than emergency or recreational within a wilderness area shall:

(a) Cause, suffer, allow, or permit any emission of air contaminants greater than 5% opacity.

(b) Discharge any waste into waters or conduct any activity which causes or is likely to cause:

(A) Any measurable increase in color, turbidity, temperature or bacterial contamination;

(B) Any measurable decrease in dissolved oxygen;

(C) Any change in hydrogen ion concentration (pH);

or

(D) Any toxic effect on natural biota.

(c) Cause, suffer, allow or permit the emission of noise from any source or sources which noise causes the maximum ambient sound pressure level to exceed 50 dbA at any point at least 50 feet from any source.

(2) Subject to the permit requirements in Section 13-015, the Department may permit the emission of air contaminants greater than 5% opacity, but not to exceed 10% opacity and noise from any source or sources causing the maximum ambient sound pressure level to exceed 50

dbA at any point at least 50 feet from any source, but not to exceed 75 dbA at such distance.

13-025 PENALTIES. In addition to and not in lieu of any other judicial redress, a person violating these rules shall be subject to criminal prosecution as provided by Oregon Law.

13-030 NATIONAL EMERGENCY. The Governor of Oregon may suspend these rules for the duration of any national emergency.

13-035 NEW WILDERNESS AREAS. These rules shall not apply to any wilderness area established after January 1, 1972 by the United States until a public hearing on the possible application of these or other rules thereto shall have first been held by the Commission.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

MAY 09 1985



REPLY TO
ATTN OF: M/S 601

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

MAY 10 1985

OFFICE OF THE DIRECTOR

Fred Hansen, Director
Oregon Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. ^{Fred} Hansen:

As you know, the National Surface Water Survey is now being planned for this fall. Thirty two of the lakes selected for the survey are in wilderness areas in Oregon. The purpose of this letter is to request a variance from the Oregon Administrative Rules governing noise levels in wilderness areas so that we may use helicopters to sample these lakes.

Mike Gearheard and members of my staff have met with your staff to discuss the information that would be required in order for you to evaluate our application for a variance. Based on that meeting, my staff has prepared a twelve page analysis that justifies our request for a variance. We believe this analysis provides sufficient information for you to evaluate our request.

During the meeting the issue of scheduling was discussed. We would like to have the EQC consider our application during their June meeting since we need to commit contract dollars for this survey by July. As your staff indicated, our submittal should allow sufficient time for you to evaluate the proposal before the June meeting.

This application is based on the assumption that the U.S. Forest Service and the Park Service will grant us permission to use helicopters in wilderness areas. To date, we have received no official word from the Forest Service. We expect a decision by May 10th.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "L. Edwin Coate".

L. Edwin Coate
Deputy Regional Administrator

Enclosure

JUSTIFICATION FOR VARIANCE REQUEST

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is proposing to sample 498 lakes in federally designated wilderness areas and national parks during the western part of the National Surface Water Survey (NSWS). Thirty two of these lakes are in federally designated wilderness areas in Oregon. The NSWS is a key component of a Congressionally mandated national effort to evaluate lake and stream sensitivity to acidic deposition (acid rain) and to assess the environmental, social, and economic effects on these aquatic resources.

Sampling protocols established for the national survey call for the use of helicopters to gain access to lakes. Under the protocol, each lake will be visited by helicopter one time only; the entire sampling visit to last roughly 20 minutes at the lake.

Sections 13-005 through 13-035 of Division 340 of the Oregon Administrative Rules govern pollution from activities in wilderness areas. These rules contain restrictions on allowable noise levels. Under the rules, no activity may be permitted that allows noise levels to exceed 75 dbA at a distance of greater than 50 feet. It is expected that the noise levels from the use of helicopters will result in noise levels that exceed 90 dbA at this distance. Therefore, a variance from these rules will be necessary for EPA to use helicopters to conduct the sampling in Oregon wilderness areas. It is expected that the survey will comply with the other provisions of this regulation covering air and water pollution.

Section 467.060 of the Oregon Revised Statutes specifies the conditions under which a variance from the regulations can be granted. This section allows the Environmental Quality Commission to grant a variance if "special circumstances render strict compliance unreasonable, unduly burdensome, or impractical due to special physical conditions or cause;".

EPA is requesting a one-time variance for helicopter access to wilderness areas to carry out the survey on the grounds that such sampling meets the "unique circumstances" test of ORS 467.060 (b).

PURPOSE AND NEED

The purpose of the NSWS is to obtain high quality data for evaluating the nature and extent of acidic deposition throughout the United States. The NSWS will contribute information towards the development of a long-term monitoring program and future national strategy to control acidic deposition. The NSWS has been designed to provide a statistically consistent set of data which can be used to assess the number and distribution of lakes throughout the United States that are sensitive to acidic deposition. In order for this data to effectively be used in national and regional control strategies, it is vital that the highest quality controls be employed both in the collection and analysis of samples.

As a result of the survey's random design, approximately 498 of the 888 lakes to be sampled in the western portion of the NSWS fall within national parks or wilderness areas. The wilderness area lakes must be included in the western survey to preserve its statistical validity. The preferred means of access is using helicopters to sample all lakes.

The conclusions of EPA scientists are based on the findings that (1) the environmental impacts of using helicopters would be transitory and would not be significant, and (2) their use is the only alternative which will clearly result in the acquisition of data necessary to meet the national need for evaluating the nature and extent of acidic deposition. Strict compliance with OAR 340-13-005 through -13-035 would be unreasonable as it would mean that the data collected for wilderness would not be adequate to meet the survey's purpose.

A number of individuals and groups have raised concerns about the precedence that could be established by allowing this motorized activity in wilderness areas. The following unique features of the survey should severely limit the ability of others to use the survey as precedence for justifying additional entries into the wilderness system:

- * The need for helicopters is based on data quality and comparability, not on efficiency, convenience or economy.
- * The survey will establish important baseline data for sensitive receptors (lakes) for areas classified as Class 1 under the Clean Air Act.
- * The information obtained from this survey will be used in a 1987 report to Congress mandated by the Acidic Precipitation Act of 1980.
- * The sampling survey is consistent with the spirit of the wilderness rules because its purpose is to protect the lakes from possible acid deposition.

To see that noise impacts from the use of helicopters is minimized, EPA staff will work closely with local Forest Service and DEQ staff to identify lake-specific concerns. Specific mitigation measures will be developed in consultation with the land managers. These would include, but not be limited to, informing the public about NSW activities in wilderness areas; using pilots experienced in flying in high altitude, mountainous terrain; choosing helicopters that have lower noise levels; adopting the "Fly Neighborly" program to reduce noise impacts; adjusting flight schedules to avoid times of the week (e.g., weekends) or day when high visitor use is anticipated; planning and scheduling flights to avoid sensitive wildlife habitat or activities; and avoiding areas during scheduled special hunts.

BACKGROUND

A great deal of attention has been paid lately to the problem of acidic deposition or "acid rain". Acid rain is known to occur when oxides of nitrogen and sulfur are emitted into the atmosphere. The major man-made sources of these emissions is combustion of fossil fuels in electric power plants, automobiles, and industrial boilers. When these pollutants are emitted into the atmosphere, they can react with other chemicals and water to form acids which then fall to the ground as acidic deposition. This deposition can be in the form of rain, fog, snow or dry fallout.

Acid deposition can cause serious environmental problems. One of the main problems occurs when acidic rain or snow enters lakes and streams. A number of researchers have shown that acidic deposition causes damage to lakes and streams and to the biota that are in them.

Lakes and streams vary in their sensitivity to acidic deposition. This sensitivity is usually referred to as buffering capacity. Lakes with more buffering capacity are able to assimilate more acid rain without becoming damaged. In our long-range effort to minimize potential damage from acidification, it is important to identify which lakes and areas of the country are especially sensitive to acidic deposition.

The NSWS, as part of the National Acidic Precipitation Assessment Program, is designed to clearly quantify the sensitivity of aquatic systems in this country to acidic deposition.

Prior to this study we did not have a scientifically valid data base with consistent methodologies that would allow the comparison of data from region to region. The NSWS is designed to create a data set that can be used to describe, by extrapolation, the overall status of lakes within a region, and thereby establish a baseline from which we can determine trends.

The basic objective of the survey is to measure the chemistry of lakes and streams throughout the United States by taking one sample, at the same relative time of the year, in exactly the same manner, for a statistically representative population of lakes. The eastern portion of the survey, involving nearly 2000 lakes, was completed last year.

Although most acidic deposition research has focused on the eastern U.S., there is a growing concern about acidic deposition and its effects on the sensitive areas of the west. We are finding that there is a paucity of data for western lake systems compared to the eastern data base. Yet the limited data strongly suggests that we may have a large population of highly sensitive watersheds with little or no buffering capacity.

ENVIRONMENTAL ANALYSIS OF SAMPLING ALTERNATIVES

Of the 65 lakes selected in Oregon, 32 are located in federally designated wilderness areas. For the entire western portion of the survey 498 of the 888 lakes selected are in wilderness areas in nine different states. Lakes in wilderness areas represent a key part of the regional assessments. This is because these areas contain many of the most sensitive lakes. Over 80% of the lakes expected to be the most sensitive to acid deposition are in wilderness areas.

To gain access to these wilderness areas, we have been requested by the U.S. Forest Service and the National Park Service to do an Environmental Assessment of the impact of using helicopters and/or ground access to sample the lakes. Based on that EA, EPA has concluded that helicopter access represents the best alternative for sampling these lakes and is also consistent with the Wilderness Act. The analysis in the EA also provides justification for a variance from the State of Oregon rules. To date, no regulations in other states have been identified that prohibit the use of helicopters in wilderness areas.

Highlights of the survey that are discussed in the EA include:

- The importance of the survey for the national acid rain program and for critical regulatory needs under the Clean Air Act's "prevention of significant deterioration" (PSD) program.
- Lakes must be sampled when they are unstratified, after fall turnover and before freezing; therefore the sampling must not start until September and must be completed by mid-October. Within this five week window we must sample all 498 wilderness lakes.
- Because of the random sampling techniques, non-wilderness lakes cannot be substituted for wilderness lakes.
- Three important chemical parameters must be analyzed within 12 hours after sampling. These parameters are pH, dissolved inorganic carbon, and an extraction to measure monomeric aluminum, which is considered an important feature of toxicity to fish.

The EA focuses on four alternatives for sampling the wilderness area lakes. These include: 1) sampling all with helicopters, 2) sampling all using ground access, 3) sampling all within a half days hike of the wilderness boundary by ground and sampling the remaining ones by helicopter, and 4) not sampling the wilderness area lakes.

Alternative 1 would involve using sampling protocols developed for the NSWS and already used successfully in completing the survey in the upper Midwest, the Northeast, and the Southeast. Helicopters would fly to each lake, land on the lake to obtain a water sample (a process taking approximately 20 min.), and then proceed to the next lake or return to a field base laboratory. All samples would be analyzed and processed at field labs for shipment to an analytical laboratory for further analyses by methods identical to those used in the East.

Alternative 2 would involve horse or foot access to all lakes to be sampled. With horse access, sampling crews of four people (two samplers, a wrangler/guide, and at least one rider to transport the samples) and eight animals (four riding horses and four pack animals) would be used. If access by foot were to be used, a crew of at least four people would be needed for packing the sampling and camping equipment. Additional people would be needed for transporting the samples out of the wilderness area. Samples would be collected using an inflatable boat. All chemical variables measured for Alternative 1 would also be measured under this alternative, but NSWS sampling protocols would be modified in that samples would be filtered and processed for transport at the site of collection to reduce time constraints. A pilot study to determine comparability of data gathered by ground vs by helicopter would be completed for this alternative. Samples would be transported to the field base laboratory.

Alternative 3 would involve horse or foot access to lakes in wilderness areas from which samples could be transported to a helicopter landing site within seven hours. Samples would be collected from an inflatable boat as in Alternative 2, but would then be transported immediately to a landing site so that they would arrive at the field base laboratory in time to be processed within a 12 hour time limit (i.e., samples would have to be transported to a helicopter landing site within 7 h; a transport time in the helicopter of 1 h is assumed; processing time in the field base laboratory would take 4 h). All chemical variables would be measured as in Alternative 1. Helicopters would be used for gaining access to all lakes where distance or difficulty of access by other means would prevent samples from being transported to a helicopter landing site within the required 7 hour. Helicopters might also be used as a last resort for some closer lakes if weather prevented ground access.

Alternative 4 is the no action alternative. No lakes would be sampled within wilderness area boundaries. Helicopters could be used to sample randomly selected lakes outside wilderness areas, as was done in the eastern and midwestern portions of the NSWS, but results would not be applicable to wilderness areas because a significant portion of the West and areas of greatest susceptibility would not be sampled.

Impacts on Program Objectives

EPA believes the best alternative from an environmental management and scientific perspective is to use the same methodology that was successful in the eastern portion of the survey, which is Alternative 1. This alternative should have minimal impacts on the wilderness environment. Of the remaining alternatives, each has major drawbacks that jeopardize the fundamental objectives of the survey. Specifically, Alternative 2 will require the redesign of collection and analysis methods, effectively postponing the survey for this year. In addition, inaccessibility of certain lakes could invalidate the entire statistical design of the survey. Alternative 3 will introduce additional error into the data base because of the combination of methods involved. Alternative 4 will result in the elimination of wilderness areas from the survey and thereby severely impact the comprehensiveness of the survey's regional estimates of sensitivity and acidity.

Impacts on Methods

The need for helicopter access results primarily from sample handling deadlines for three of the important chemical variables to be measured - pH, dissolved inorganic carbon (DIC), and extractable aluminum. The following discussion summarizes the significance of these three variables, the reasons why we need to analyze them quickly, and the problems with using alternative methods for obtaining data of adequate quality.

Numerous researchers have determined that low (acidic) pH values may be toxic to a variety of aquatic species and may also affect growth, distribution, etc. pH has also been related to a number of other factors such as the chemical form and availability of nutrients and trace elements. In our survey, pH will be used not only as an indicator of the existing acidic status of lakes, but also as a quality-assurance check on a number of other measured variables. For example, through a complex set of chemical equations, pH is related to alkalinity and dissolved inorganic carbon; aberrant individual values will be used by our investigators to identify analytical errors.

Dissolved inorganic carbon (DIC) consists of carbon dioxide, bicarbonate, and carbonate, the relative proportions of which are a function of pH. These chemical species contribute to alkalinity, which is a measure of the ability of water to absorb acid without changing pH, and is a key feature of the assessments we will make. DIC data collected in our survey will be used to quantify the contribution of inorganic carbon to alkalinity and acidity, and to calculate total anion concentration and verify pH measurements, both of which are important quality-assurance measures.

In recent years, scientists have paid increasing attention to high levels of aluminum as a probable explanation for observed toxic effects (such as loss of fish populations) in acidified waters. The extractable aluminum determination in the survey is a measure of monomeric aluminum species such as Al^{3+} and the various aluminum hydroxides. Monomeric aluminum appears to be the species of concern from the standpoint of toxicity to fish, rather than total aluminum, which also includes extremely stable organic and hydroxy organic complexes.

For all three parameters discussed above, it is essential to analyze (or, in the case of aluminum, extract) the samples as soon as possible because of possible sample degradation. DIC and pH can change with time as a result of chemical/biological processes within the sample and as a result of exchange of CO_2 with the atmosphere. This degradation is minimized by keeping the samples isolated from the atmosphere and refrigerated. Aluminum speciation (the various forms of the element) can change with time as polynuclear species are formed from monomeric species present at the time of collection. Such changes can cause an underestimate of the true concentration of monomeric aluminum. Aluminum concentrations may also change as a result of changes in DIC, pH, and temperature, and as a result of adsorbance onto container surfaces. Thus, it is desirable to extract the sample as soon as possible and to store the relatively stable extracted sample in methyl isobutyl ketone, or MIBK, on ice until it can be analyzed. The NSW sampling protocol calls for measurements of pH in the field; of pH and DIC within 12 hours of collection in the field laboratory, where the aluminum extraction is performed; and of pH, DIC, and aluminum within seven days in contract analytical laboratories.

The EA under Alternative 2 (access to lakes via horseback) considers modifications to these sampling and analysis protocols that would be employed to allow more time between sampling and sample processing. Each of these modifications introduces problems in terms of the quality of data that we will get.

For pH, samples could be measured at the field laboratory more than 12 hours after sampling, although this would exceed the recommended "holding time" for pH determinations and raise serious questions about data quality. Field laboratory determination of pH could be omitted entirely, placing greater reliance on rough field pH measurement and raising questions about whether the precision and accuracy of the field measurements are adequate. The field measurement would also not be accompanied by a simultaneous DIC determination, an important quality-assurance measure as discussed earlier.

For DIC, the instrumentation (a carbon analyzer that is bulky and requires a stable source of electricity) is not portable, and thus no measurements are possible until the sample is brought to the field laboratory. Although the sample is sealed in the syringe to minimizing contact with the atmosphere and kept on ice, sample degradation could still be a problem because of biological or chemical processes.

For extractable aluminum, one alternative that could lessen the need for helicopter access would be filtering and extracting the sample at the lakeshore rather than at the field laboratory. This would involve carrying to the field some additional reagents, in particular, hydroxyquinoline and MIBK, both of which are hazardous chemicals, and portable filtering equipment. This field extraction technique would have the advantage of allowing the sample to be extracted almost immediately after collection, thus minimizing polymerization within the sample. However, this approach would also have some severe drawbacks: precise manipulations will be difficult under less-than-ideal weather and site conditions, an increased risk of sample contamination, reagents will be ruined if allowed to freeze, filtration pressure will be more difficult to regulate than in the laboratory, and filtration time might be lengthy for some samples.

In summary, each modification to the methods proposed for the NSWS involves a higher degree of risk in terms of data quality, and it is unlikely that the data collected would be satisfactory in terms of precision, accuracy, freedom from contamination, and comparability. In addition, Alternative 2 would require a redesign of the analysis methods, resulting in a postponement of the survey until at least 1986.

Even if satisfactory field methods could be developed, there are quality assurance (QA) problems associated with Alternative 2 that could jeopardize the survey objectives. Since non-wilderness areas would be surveyed by helicopter, a calibration of the different sampling and analysis methods would be necessary before regional estimates can be made. It is inevitable that there will be some amount of error involved when incorporating both methods. This error will affect the certainty of the regional estimates of sensitivity and acidity.

Although Alternative 3 will not require a revision of analysis methods, there could still be problems with data quality if this alternative is used. Since different sampling methods will be used, precise calibration of the methods' protocols must be done. It is expected in any comparison that two different methods will not be in perfect agreement. As with Alternative 2, there may be random or systematic bias between methods. This bias will also affect the certainty of the regional estimates.

These estimates will take the form of frequency curves. These curves are designed to predict what percent of lakes in a region are below a critical value for a certain parameter (i.e. pH 5). The NSWS data objectives focus on those values at the low end of the curve, (e.g. pH 5.0 or acid neutralizing capacity (ANC) 50 microequivalents/liter). Most wilderness lakes are expected to fall in this category. In this range even close correlations between methods can lead to significant increases in the error associated with an estimate. The higher the error, the more uncertain the estimate is.

This can be seen by considering those 2% of all lakes with either the lowest pH or ANC. The number of lakes in this category will be very important from the perspective of estimating present or potential damage from acidic deposition. If the correlation between Alternative 2 sampling methods is 0.95 (a high level of correlation), the error associated with the estimated number of lakes could be as high as 17%. If the correlation between methods decreases to 0.50, the error could rise to 205%. It is impossible to predict beforehand how close the two sampling methods will correlate. It is likely that the correlations will be between 0.95 and 0.5.

The survey objectives call for less than a 12% level of error associated with each estimate. The results of the Eastern lake survey indicate that the protocols will generate data within that error limit. Using the combined method approach in either Alternative 2 or 3 could increase the error to the point where the ability of the survey to generate regional estimates would be seriously impacted.

In short, both Alternative 2 and Alternative 3 introduce a much higher level of uncertainty in the data. It is questionable as to whether the data generated under either of these alternatives will be of comparable quality to that of Alternative 1. High data quality, as mentionable earlier, is of paramount importance to the success of this survey.

Survey Design

The key feature of the survey design is that it is a random stratified sample. Each region to be sampled has been divided into three classes of alkalinity. Roughly 50 lakes from each alkalinity class must be sampled to meet the survey design objective: an accuracy of $\pm 12\%$ in our regional assessments. This level of precision is important in developing credible and enforceable policies for controlling acidic deposition.

The concept of randomness is crucial for the survey. Random sampling allows us to test a small percent of the lakes in these sensitive regions and still come up with regional assessments that are reasonably accurate. However, we cannot pick and choose which lakes to sample when we use this technique. Also, entire areas cannot be eliminated from the regions to be sampled, because this will bias the results and invalidate any regional assessments. This also means that lakes selected outside the wilderness cannot be used to represent conditions inside.

Furthermore, the data on wilderness areas is vitally important to the assessments. These areas contain many of the most sensitive lakes in the west. If we were to arbitrarily exclude these regions, EPA and the State would be losing the most valuable data in terms of lake sensitivity.

The survey is synoptic in that we will be taking one sample from each of these lakes. EPA's science advisory team has determined that the best time to take a single sample from each of these lakes will be after the lakes overturn in the fall and before the lake freezes. For much of the west, this time period will be less than five weeks. All of the 888 lakes selected, including the wilderness lakes, must be sampled within this time period. The most technically feasible and economical way to do this is by helicopter.

If serious problems are encountered in ground access, the most likely response would be to eliminate a number of lakes from the sample population. The effect of that will depend on how the lakes are eliminated. For each of the regions sampled, we need to sample a minimum of 50 lakes per alkalinity class. Reducing the total number of samples reduces our ability to make accurate regional assessments from the population of lakes sampled.

Another, and more serious problem, arises from any systematic elimination of lakes. For example, under Alternative 2 we are likely to eliminate lakes that are in the innermost parts of the wilderness areas and lakes that have the roughest surroundings, simply because it will not be possible to get to those lakes. This type of systematic elimination completely invalidates the survey design and makes it impossible to reach any statistically valid extrapolation to a regional level.

Alternative 4 would delete about half of the lakes in Oregon from the survey and could result in a large error in our estimate of the sensitive and impacted lakes. This is because most of the lakes in the lowest alkalinity class are in wilderness areas. Because of this problem, this alternative could result in cancellation of the survey region covering the Cascades in Oregon and possibly Washington as well.

Environmental Impacts

Alternative 1

Noise. All recreational uses of wilderness areas will be affected by the noise of the helicopters used in the proposed action. Helicopters are comparable in sound level to heavy trucks and city buses. Helicopter sounds are different in character, however, from other modes of transportation. Takeoff, landing, and flyover each have a different combination and intensity of sound. A typical wilderness might have ambient noise levels in the range of 10 to 30 dBA. The loudest noise from the proposed helicopter use would be approximately 90 dBA at landing on the lake surface at about 500 ft. from an observer on shore. A typical wilderness visitor at a lakeshore would first hear the sounds of a helicopter approaching from a level flyover altitude of 2000 ft. Exact data are unavailable on the intensity of this sound, but it would likely be in the vicinity of 40 dBA. As the helicopter lands, the sound intensity to an observer located 500 ft. from the deepest point of the lake would increase to approximately 80-90 dBA. While on the water during the sampling (15-20 min), helicopter sound intensities would range from 56-66 dBA if a reduced engine-idle speed could be maintained or 66-74 dBA if full engine idle speed were necessary. Takeoff sound intensities would decrease with ascent from 83 dBA to the intensities of the level flyover (40 dBA and less) as the helicopter flew from the area.

The only likely adverse impact on wildlife associated with the use of helicopters would be the effects of noise. Most known noise effects, however, have to do with long-term exposure to relatively high levels and the consequent permanent effects on health, physiology, or behavior. In the present case, the only probable effect of one or, at most, several overflights by helicopters would be a startle or fright response. Except in the relatively unlikely event of an accident suffered by a frightened animal, such impacts would be minor and transitory.

To see that noise impacts from the use of helicopters is minimized, EPA staff would work closely with local Forest Service and DEQ staff to identify lake-specific concerns. Specific mitigation measures would be developed in consultation with the land managers. These would include, but not be limited to, informing the public about NSWS activities in wilderness areas, using pilots experienced in flying in high altitude, mountainous terrain, choosing helicopters that have lower noise levels, adopting the "Fly Neighborly"

program to reduce noise impacts, adjusting flight schedules to avoid times of the week (e.g., weekends) or day when high visitor use is anticipated, planning and scheduling flights to avoid sensitive wildlife habitat or activities, and avoiding areas during scheduled special hunts.

Water bodies. The major potential source of environmental impact to water bodies would be a spill or leak of fuel from the helicopters into the lakes being sampled. Leaks of hydraulic fluid and spills of other materials (e.g., pH standard solutions, freeze-gel packs) could also occur. For all but the smallest water bodies to be tested, no significant toxic effects would be expected, but a temporary visible sheen might result from any hydrocarbon spill or leak. EPA has evaluated the possibility of providing spill clean-up equipment on board. However, the additional weight of this equipment on the helicopter could pose a safety problem because of weight restrictions, or could necessitate using larger helicopters, and is not considered justifiable in these circumstances.

Alternative 2

Wilderness use. This alternative would increase trail and campsite use during a time of year when wilderness visitors might reasonably expect more solitude and tranquility. The size of each survey crew would generally be compatible with the size of other parties visiting wilderness areas. Wilderness visitors could be negatively impacted by the survey crew camping near them at lakes, but presumably no more so than by other ordinary visitors. Using horses would contribute in a minor way to the damage to trails and camping sites by trampling and feeding on surrounding vegetation, expanding the trail width, increasing the trail's depth and erosion potential, and increasing soil compaction in tethering areas.

Because reduced levels of visitation by general users occur during the fall period when the survey would take place (although special uses such as hunting may peak during this period), conflicts of the EPA survey crews with other wilderness visitors for backcountry permits would be unlikely. In those wilderness areas where hunting season would be under way, a potential for conflict exists.

Human safety. This alternative involves having many more people sampling high altitude lakes during the fall when weather conditions are very uncertain. Sampling teams could be isolated by early fall blizzards and be subjected to severe weather conditions. Using inflatable boats for sampling extremely cold, alpine lakes would be dangerous. In extremely cold lakes, the human body can tolerate less than ten minutes immersion before severe hypothermic conditions interfere with judgment and physical performance. An accident in the middle of a lake could, therefore, cause serious problems.

Accidents involving horses being ridden or led through rocky, mountainous terrain are not common, but are a possibility. Accidents involving backpackers could also occur. EPA would use personnel experienced in backcountry packing operations and would train less experienced members of the survey crew to minimize the likelihood of accidents.

Alternative 3 (Helicopter and ground access)

Impacts for this alternative would be intermediate between Alternatives 1 and 2, and would depend on the proportion of lakes sampled via helicopter vs ground.

Alternative 4 (No action)

Wilderness values. This alternative would produce no data from wilderness areas that could be used specifically for identifying potential or realized acidic deposition problems inside the areas. Data collected for potentially sensitive lakes that do not include wilderness areas are likely to be biased at a regional level by not including these areas. Control strategies based upon such a data base are, therefore, unlikely to place sufficient emphasis on wilderness areas.

CONCLUSIONS

Tables S-1 and S-2 present summary comparisons of the four alternatives considered in this EA. Table S-1 indicates that Alternative 1 should have greater environmental impacts on wilderness areas than Alternatives 2 and 4, but all of these potential impacts are of a minor and transitory nature. Table S-2 clearly shows that only Alternative 1 provides the type of high-quality data for the most representative set of lakes with the minimum set of logistic problems that will permit the survey objectives to be obtained. Based on this analysis, EPA believes that 1) the environmental impacts of using helicopters would be transitory and would not be significant and 2) their use is the only alternative which would generate the data necessary to meet the national need for evaluating the nature and extent of acidic deposition.

Alternative 1 involves a one-time request for mechanized access to carry out the survey. The following unique features of the survey should severely limit the ability of others to use the survey as a precedence for justifying additional noise generating activities in wilderness areas:

- * The need for helicopters is based on data quality and comparability, not on efficiency, convenience or economy.
- * The survey will establish important baseline data for sensitive receptors (lakes) for areas classified as Class 1 under the Clean Air Act.
- * The information obtained from this survey will be used in a 1987 report to Congress mandated by the Acidic Precipitation Act of 1980.
- * The sampling survey is consistent with the spirit of the wilderness rules because its purpose is to protect the lakes from possible acid deposition.

EPA believes that the objectives of this survey correspond with the intent of OAR 340-13-005, which cites the value of wilderness areas as resources and seeks to minimize the effects of air, noise and water pollution on them. Accurate baseline data is important to ensure proper management of these sensitive areas and to help guide State, regional, and national efforts to minimize the impact of acid deposition. We believe that the use of helicopters to obtain this data represents a reasonable balance between the need to maintain a wilderness environment and the need to generate data that can be used to protect it.

Table S-1. Comparison of Environmental Consequences for the Alternatives

	Alternative 1 (helicopters)	Alternative 2 (horses)	Alternative 3 (horses and helicopters)	Alternative 4 (no action)
1. Wilderness Values				
o Wilderness Character				
- Long-term preservation	+	+	+	-
- Precedent setting	-	0	-	0
o Wilderness solitude	-	-	-	0
o Wilderness uses				
- Hunting and other recreation	-	-	-	0
- Scientific study	+	+	+	0
2. Biota (including E/T species)	-	-	-	0
3. Human safety (probability of serious injury or death)	-	-	-	0
4. Cumulative effects	0	0	0	0

"+" indicates a positive effect; "0" indicates no effect; "-" indicates a negative effect.

Table S-2. Summary Comparison of Consequences to the NSWS Primary Objectives for the Alternatives

Primary Objective	Alternative 1 (helicopter access)	Alternative 2 (horses/ foot access)	Alternative 3 horseback/foot and helicopter access)	Alternative 4 (no action)
1. Quantification of acidification status (pH) of lakes	+ ^a	- ^b	-?	-
2. Quantification of susceptibility to acidification (alkalinity) of lakes	+	- ^b	-?	-
3. Characterization of lake chemistry	+	- ^b	-?	-
4. Selection of regionally representative lakes for Phase II and Phase II	+	- ^b	-?	-

a

"+" indicates a positive effect, the expected satisfactory meeting of the NSWS primary objective;
 "-" indicates a negative effect, the expected failure to meet the NSWS primary objective;
 "?" indicates considerable uncertainty related to quality assurance, an uncertainty that can only be resolved by the comparability studies discussed in the draft EA.

ASX

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUN 14 1985



REPLY TO M/S 601
ATTN OF:

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
JUN 20 1985

Fred Hansen, Director
Oregon Department of Environmental Quality
PO Box 1760
Portland, Oregon 97207

OFFICE OF THE DIRECTOR

Dear Mr. Hansen:

In May EPA submitted to DEQ an application for permission to sample lakes in wilderness areas in Oregon as part of the western portion of the National Surface Water Survey. In our original application we requested a variance from the Oregon Administrative Rules governing noise levels in wilderness areas so that we could use helicopters to sample 32 lakes in Oregon. The purpose of this letter is to provide additional information so that the EQC can consider this application during their July meeting.

Since our original application EPA and the Forest Service have reached a tentative agreement on the manner in which wilderness lakes will be sampled. This approach involves a mixture of ground and air sampling in wilderness areas. The impact of this should be to lessen the number of lakes that we will be sampling by helicopter to less than 10. However, because of the uncertainties associated with ground sampling, we are still requesting permission to land for each of the 32 wilderness lakes in Oregon.

The following attachment describes in more detail the nature of the agreement between EPA and the Forest service and explains why we still need permission to sample using helicopters.

Thank you for your continued cooperation.

Sincerely,

L. Edwin Coate
Deputy Regional Administrator

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 20 1985

Enclosure

WATER QUALITY CONTROL

JUSTIFICATION FOR VARIANCE REQUEST
ADDITIONAL INFORMATION

In an effort to minimize the use of helicopters in the wilderness areas, EPA and the Forest Service have agreed to use a mixture of ground and helicopter sampling to conduct the western portion of the National Surface Water Survey. We have limited the lakes we will sample by helicopter to three types. One is lakes that have to be done as part of a comparability study between ground and air sampling. Another is those lakes that are completely inaccessible by ground access. We will know prior to the actual fieldwork which specific lakes fall into these two categories. A third category is lakes that it will be unsafe to get to because of weather conditions. A specific decision making process involving the USFS Regional Forester will be used to decide in the field which lakes should be included in this third category.

The agreement between EPA and the FS allows for a comparability study of ground and air sampling methods. The results of this study will allow decisions to be made as to whether the ground access data for wilderness areas should be used in constructing the regional estimates. If the data is not found to be comparable, a secondary objective of the study is that the air sampling data from wilderness areas will allow a limited assessment of these areas.

The comparability study will include 50 lakes. This sample size will allow an estimate to be made for all wilderness areas in the western U.S as a whole even if the data from ground and air sampling are not found to be comparable. In order for the comparability study to adequately make a comparison, lakes must again be selected at random. It is important for Oregon lakes to be adequately represented in the comparability study. Otherwise, it could be much more difficult to make any observations about Oregon wilderness areas based on the ground access data. Assuming that Oregon will be proportionally represented in the comparability study, it is expected that around five Oregon wilderness lakes will be included in the study.

Another type of lake that we would like to sample by helicopter are those lakes that are inaccessible by ground transport. Although the Forest Service expects to get to most of the wilderness lakes, there may be a few (probably less than six) that are not accessible. Under our agreement with the Forest Service, they have agreed to allow helicopter sampling for those inaccessible lakes.

A final category of lakes that we are requesting permission to fly to are those that will be considered to be unsafe to sample by ground access. This is a decision that would be made in the field and which would require the permission of the Regional Forester. Most likely this would include any individual lakes that have not been sampled by the time that weather makes ground sampling unsafe.

At present the Forest Service will use twelve ground crews to sample in the Cascades from October 11 to 17 and in eastern Oregon from September 21 to October 2. Considering this schedule, we expect to get to nearly all of the wilderness lakes that ground sampling is required for. Under our agreement with the Forest Service, however, the Forest Service field manager could request approval from the Regional Forester to use helicopters to sample individual lakes if it appears that planned sampling can not be completed otherwise.

At present, we expect that less than half of the 32 Oregon wilderness lakes will require helicopter sampling. We will have a list of the comparability study and inaccessible lakes by early July. Although we do not expect to require permission to sample the remaining wilderness lakes, it is conceivable that any individual wilderness lake could fall into the unsafe category and require air sampling. Therefore, we would like to have permission to sample for each of the wilderness lakes in Oregon.

The approach agreed upon by EPA and the Forest Service attempts to balance the need to maintain a wilderness environment and the need to obtain high quality to protect it. We are asking the the EQC endorse this approach and grant permission to sample wilderness lakes by helicopter in those instances where helicopter sampling is needed to meet the objectives of the study.

6/14/85
85-IE-019

**1985 Western Lake Survey
Terms of Agreement
between
The Environmental Protection Agency
and the
U.S. Department of Agriculture, Forest Service**

Because of the critical need for information on the status of western lakes, and the need to protect the wilderness resource as required by the Wilderness Act, the Environmental Protection Agency (EPA) and the U.S. Department of Agriculture Forest Service (FS) believe that it is in the public interest to proceed with the survey in 1985 using a mixed ground and helicopter sampling plan. Although this approach may carry with it an additional risk of problems in data quality, we have chosen to proceed rather than delay the survey for at least one additional year to fully test the comparability of ground and helicopter sampling methods.

1. The sampling design for the Western Lakes Survey (WLS) will remain unchanged. Our ability to predict acidification status of western lakes will require the pooling and combined analysis of data from lakes within and outside wilderness areas.
2. The EPA will establish the five field laboratories as provided for in the original plan.
3. As part of the WLS, a comparability study will be carried out to ensure that the results from the ground sampling in the wilderness and the helicopter sampling outside are comparable. FS and EPA will work together to identify lakes for the comparability study. The comparability study will be done by taking two samples by helicopter and one by ground on 50 stratified, randomly selected lakes.
4. EPA will sample by helicopter all nonwilderness lakes, the 50 wilderness lakes identified under Item 3 above which are needed for comparability testing and lakes identified by the FS as inaccessible during fall lake turnover. In addition, helicopters can be used to collect samples from lakes in the flight pattern to the lakes in the comparability study and those identified as inaccessible. FS field personnel, in consultation with EPA field personnel, will determine and approve all flight plans for helicopter use in wilderness and determine the additional lakes that may be sampled along the flight path.
5. FS personnel will sample the 50 lakes necessary for the comparability test plus the remaining lakes not samples by EPA with helicopters under Item 3 above
6. EPA will provide the FS with the appropriate protocols for sample collection and sample preparation including quality assurance requirements. EPA will also identify for the FS the sampling equipment and instruments, needed to carry out the sampling activity. EPA will provide funds to the FS to cover such purchases.

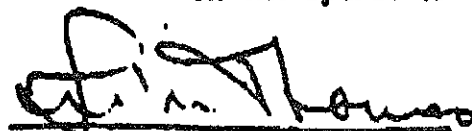
7. The FS is responsible for planning the logistics of their ground sampling operations. The FS will appoint an overall Logistics Coordinator who will work with Ed Coate of Region 10, Seattle, Washington, EPA's Field Manager for the WLS. In addition, during the sampling period the FS will provide a Duty Officer for each Survey Base Station. The Duty Officer will be responsible for assuring sample lakes are surveyed during the appropriate time period in the manner specified in the sample collection and transport protocols. The FS is responsible for providing rafts, horses, camping, and any supplemental transportation necessary to deliver samples to the field laboratories or mutually agreed to collection points. EPA will provide the necessary sample containers and chemicals for field preparation of samples. The Duty Officer can request through the Logistics Coordinator approval from the appropriate Regional Forester to use helicopters to sample individual lakes if it appears that planned sampling cannot be completed otherwise.

8. The FS will assign to the Survey personnel with as much prior experience or aptitude for environmental sampling as is possible. EPA will train FS personnel in the handling and use of equipment and in sample collection and transport procedures prior to inception of the survey.

9. The EPA and FS will agree beforehand to an objective test that will be applied to the results of the comparability study to determine acceptability. In the event the ground sampling data fail to meet the test of comparability, the quality assurance data and sampling records will be analyzed to identify possible causes. If there is found a lack of comparability owing to the differences between the ground and helicopter sampling, the FS agrees that helicopter access will be approved for resampling should a resurvey be necessary.

10. The EPA Field Manager has the overall responsibility for completion of the WLS. Any recommendation on his part of reassigning an EPA or a FS employee shall be promptly handled between the EPA Field Manager and the FS Logistics Coordinator.

11. EPA had budgeted a fixed amount of resources to complete the WLS by helicopters without a comparability study. Detailed cost estimates for the mixed ground- and helicopter-sampling program have yet to be developed. EPA and the FS commit themselves to completing the Survey with resources available. EPA will maximize the funding to be made available to the FS as a result of savings on helicopter and sampling crew costs made possible by the FS ground survey effort. The FS will maximize the use of their personnel and equipment that can be covered by FS accounts. The details of the cost sharing will be worked out in the spirit of these goals.


 Lee M. Thomas
 Administrator
 Environmental Protection Agency

6/14/85  6/14/85
 R. Max Peterson
 Chief
 U.S. Department of Agriculture
 Forest Service

Alternative 1. Wilderness Lakes

<u>Wilderness Area</u>	<u>Lake</u>	<u>Elevation</u>	<u>Ground Access Difficulty</u>
Columbia	North Lake	3,990	Good - ?
Diamond Peak	Diamond View L.	5,800	Good
Eagle Cap	(No Name)	7,810	Moderate *
	John Henry Lake	7,150	Good
	Little Frazier L.	7,480	Moderate *
	Long Lake	7,090	Moderate *
	Pocket Lake	8,200	Hard *
	Razz Lake	8,130	Moderate *
	Swamp Lake	7,810	Good *
	Traverse Lake	8,730	Moderate
Mt. Hood	Burnt Lake	4,100	Good
Mt. Jefferson	Bear Lake	5,240	Tough *
	Martin Lake	5,400	Good
Mt. Washington	Kuitan Lake	4,200	Good
Sky Lakes	(No Name)	5,860	Good
	Grass Lake	6,020	Good
	Isherwood Lake	5,980	Good
	Lake Notasha	6,020	Good
	McKee Lake	5,780	Moderate
Three Sisters	(No Name)	5,380	Moderate
	(No Name)	4,090	Moderate
	Campers Lake	4,840	Good
	Champers Lake	7,160	Tough *
	Eileen Lake	5,800	Moderate
	Helen Lake	5,240	Good
	Krag Lake	5,460	Good
	Merrill Lake	5,100	Good
	Penn Lake	4,770	Moderate
	Raft Lake	4,970	Good
Waldo Lake	Harvey Lake	5,240	Good
	Moolack Lake	4,360	Good
	Winchester Lake	4,760	Good

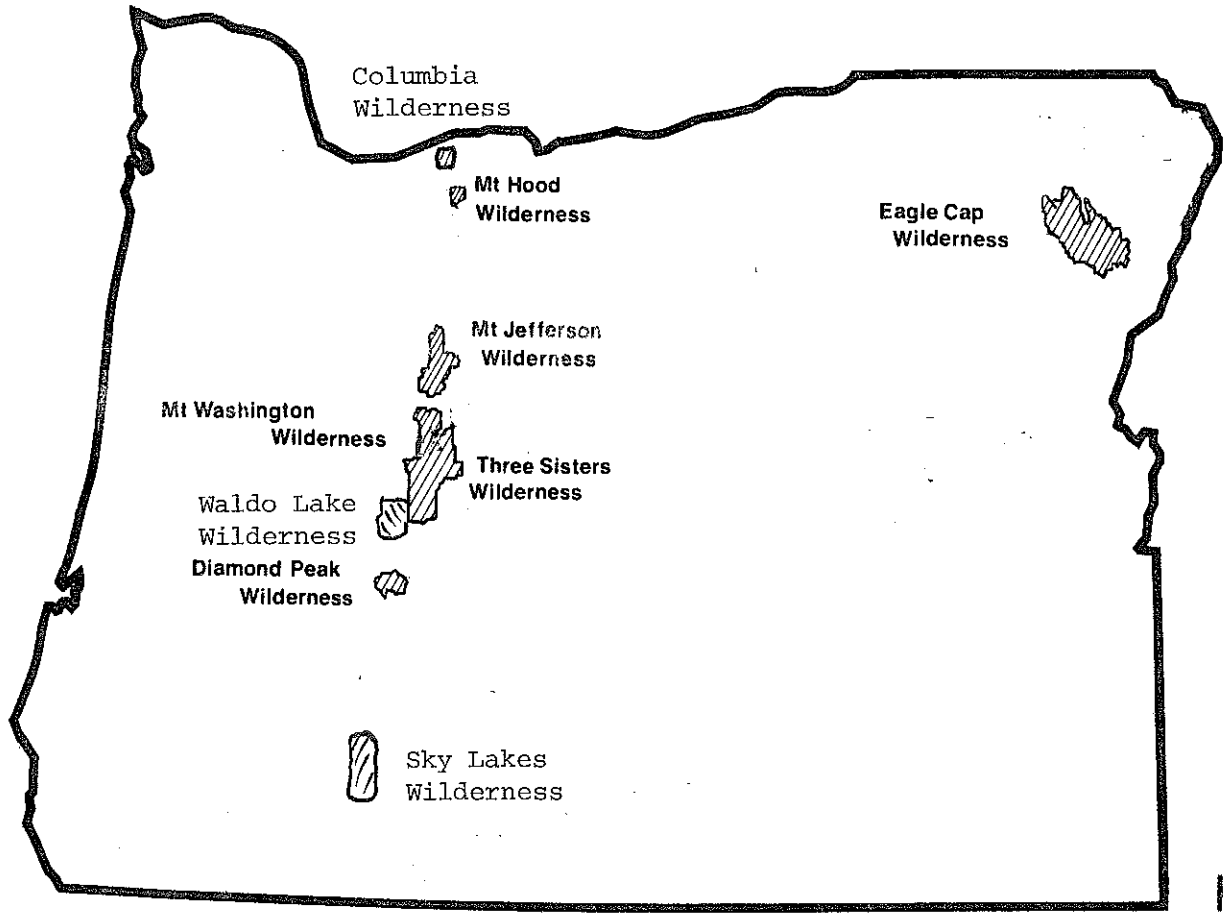
*Proposed helicopter access under Alternative 3.


Alternative 3. Wilderness Area Lakes Requiring Helicopter Access

<u>Wilderness Area</u>	<u>Lake</u>	<u>Elevation</u>	<u>Sample Out Time</u>	<u>Ground Access</u>
Three Sisters	Chambers	7,160'	5.5 hrs.	8 mi. trail; then 3 mi. cross-country
Mt. Jefferson	Bear	5,240'	4.0 hrs.	2.5 mi. trail; then 1-1/2 mi. steep trail and cross-country
Eagle Cap	(No Name)	7,810'	5.0 hrs.	6.5 mi. to Wood Lake by horse; then 2 mi. by foot
	Long	7,090'	5.0 hrs.	10 mi. by horse
	Razz	8,130'	4.0 hrs.	9.1 mi. by horse then 1 hr. by foot
	Little Frazier	7,480'	4.5 hrs.	W.Fork Wallow R. trail
	Pocket	8,200'	6.0 hrs.	Past Little Frazier Lake (remote)
	Swamp	7,810'	3.5 hrs.	9 mi. on Elkhorn Creek trail

Air Vs. Ground Comparability Study Lakes

<u>Wilderness Area</u>	<u>Lake</u>	<u>Elevation</u>
Mt. Hood	Burnt Lake	4,100
Sky Lakes	Grass Lake	6,020
Three Sisters	Krag Lake	5,460

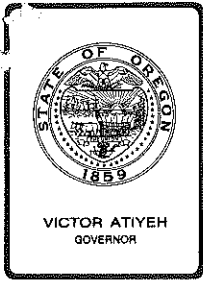


Key
 Lakes Study
Wilderness Area

Alkalinity Lake Summary

<u>Alkalinity Class</u>	<u>Wilderness</u>		<u>Non-Wilderness</u>	<u>Total</u>
	Accessible	Not Accessible*		
1	13	8	10	31
2	10	0	11	21
3	<u>1</u>	-	<u>11</u>	<u>12</u>
TOTAL	24	8	32	64

*Under Alternative 3 criteria.



Department of Fish and Wildlife

506 S.W. MILL STREET, P.O. BOX 3503, PORTLAND, OREGON 97208

July 9, 1985

Mr. Fred Hansen, Director
Department of Environmental Quality
522 S.W. 5th
Portland, Oregon 97204

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
JUL 09 1985

OFFICE OF THE DIRECTOR

Dear Fred:

This letter refers to proposed changes in Oregon Administrative Rule (OAR) 340-41-802 and OAR 340-41-842, which considers beneficial water uses for the Malheur and Owyhee rivers. Revised standards are to be considered for adoption by the Environmental Quality Commission on July 19, 1985.

In testimony presented to your Department in May 1984 we concurred with changes proposed by the Department of Environmental Quality staff. The water use tables are well thought out. The changes say in effect that warm water in the lower reaches of the Malheur and Owyhee River systems does not support trout, and reservoir habitat does not provide for successful trout spawning. These are biological realities that were addressed in a 1979 ODFW Staff Report: "Stream Surveys of the Lower Owyhee and Malheur Rivers", A report to the Malheur County Water Resources Committee. We particularly support recognition in this proposed beneficial use table of resident warm water fish and aquatic life.

We concur with changes in OAR's 340-41-802 and 340-41-842 as proposed by your staff.

Sincerely,

Monty L. Montgomery
Deputy Director

ijw
c DEQ, OAR's file
EMS file

SCHOOL OF
URBAN AND PUBLIC AFFAIRS
DEPARTMENT OF
PUBLIC ADMINISTRATION



PORTLAND
STATE
UNIVERSITY
P.O. BOX 751
PORTLAND, OREGON
97207
503/229-3920

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E C E I V E D
JUL 18 1985

July 18, 1985

OFFICE OF THE DIRECTOR

Mr. Fred Hansen, Director
Department of Environmental Quality
Portland, Oregon

Ref: Agenda Item J & L EQC - July 25

Dear Mr. Hansen:

Since I will be unable to attend the July 19th meeting of the EQC I would appreciate your reading into the record my remarks on Agenda Items J and L.

On Agenda Item J, I concur with former Director Young that it is too early to lower the use quality requirements on the Malheur-Oywee. The Department was premature in recommending reducing the standards. They should wait until the 208 plan has had an opportunity to be implemented and then measure the results. As the designer of the Malheur study and sponsor of the grant I can assure you that the purpose was not to lower standards but to design and implement Best Management Practices. I am glad that the Department has reversed itself on most of its recommendations to lower standards in this basin. I would suggest that the Commission table any reduction in use until the Best Management Practices are fully implemented.

It is my view that there is an important precedent being established: Should water quality compliance be achieved through lowering standards or through implementing the appropriate remedial program. In this case non point source Best Management Practices.

On Agenda Item J, I object to the twisted logic expressed in the Department's presentation on the 401 issue. As I stated in the January 25, 1985 hearings, I qualify as an expert witness on the establishment of the water quality standards under the 1965 and 1972 Federal Acts and in establishing the non point source program for the Department of Environmental Quality in 1975-78.

Under the 1965 Act, water quality standards were the main legislative thrust for clean up. Standards were defined as the use; plus, the physical, chemical and biological criteria necessary to obtain each use; plus, an implementation plan to achieve that use. In 1972 the Act shifted implementation and enforcement to discharge permits and the establishment of non point source Best Management Practices. The use and criteria part of the standards remained as the central ambient thrust of the Federal Water Quality program.

Mr. Fred Hansen
Page Two
July 18, 1985

The Department of Environmental Quality during my two years there, always used the term water quality standard to include the use and the physical, chemical or biological criteria necessary to achieve that use. I and all the DEQ staff used this concept and all of our public utterances were in this DEQ literature and reports during this period describe standards as these two components. The 1975 report to the congress by DEQ states that over withdrawal of water is the limiting physical criteria to the meeting of water quality standards.

The use tables have been a part of the standards regulations for several years and in my experience I have never heard anyone deny that they were not a part of the standards until the exposure of the failure by the Department to implement Section 401. It was only then that the Department personnel began to wordthink the standards concept around to justify administrative error and lack of performance on revising 401 applications.

It is my recommendation that the Commission reject this torturous word-thinking and return to the long established definition of standards used by the Department and the Commission. To do otherwise would continue to confuse the public.

On the issue of which Department has the authority to set and regulate uses it is quite clear that the relationship between the WRD and the DEQ is a mutual task.

The WRD and the Water Policy Review Board in the Basin Programs and in withdrawal actions regulate and establish uses for which water may be appropriated or used in the stream. Generally these are uses that apply to large segments or entire water bodies. DEQ works within the broad establishment of these general uses and defines them into more specific uses both as to type of fish for instance, or on to smaller segments for administrative purposes.

If the Water Policy Review Board withdraws water for a future use the DEQ and the EQC must continue to provide quality for that use if there continues to be users previously qualified for that use.

DEQ and EQC are also subject to the use policy for fishable and swimable waters as established under Section 101 of the Federal Water Quality Act. These are the indicator parameters that underlay the basic goals in the Federal legislation.

In commenting on 401 applications then it would appear to me that the test DEQ must use does the activity impact the use by changing the physical, chemical or biological criteria necessary to sustain or achieve that use. If so, then they should deny the applications.

Mr. Fred Hansen
Page Three
July 18, 1985

I appreciate your bringing this letter to the attention of the Commission at the appropriate part of the hearing record.

Sincerely,

John R. Churchill
Adjunct Professor
Department of Public Administration

JRC:bd

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

The Boundaries for the LaPine Sewer System

Date Prepared: July 3, 1985
Hearing Date: August 20, 1985
Comments Due: August 23, 1985

**WHO IS
AFFECTED:**

People who reside, own property or businesses, or operate businesses in the unincorporated core area of LaPine.

**WHAT IS
PROPOSED:**

The Department proposes an administrative rule (OAR 340-41-580(1)(a)) to more specifically define the LaPine core area boundary that will be sewered by January 1, 1987. A map of the proposed boundary and a copy of the proposed rule change are attached. The Department also hopes to post copies of the proposed rule and map at the LaPine Post Office, library, and other public buildings.

**WHAT ARE THE
HIGHLIGHTS:**

If the proposed rule is adopted, a specific boundary in the core area of LaPine will be established. Inside this boundary, the LaPine Special Sewer District shall construct a sewage collection system by January 1, 1987. All buildings and dwellings with plumbing fixtures inside this boundary would be required to connect to sewer within 90 days of written notification from the LaPine Special Sewer District.

**HOW TO
COMMENT:**

Public Hearing

August 20, 1985 - 7:00 p.m.
LaPine Fire Hall

Written comments should be sent to Dick Nichols, Department of Environmental Quality, 2150 NE Studio Rd., Bend, OR 97701 by August 23, 1985.

**WHAT IS THE
NEXT STEP:**

All comments will be considered and the proposed rule may or may not be changed. The Environmental Quality Commission will consider adoption of the rule at a regularly scheduled meeting in Bend on September 27, 1985.

GC2299.C



P.O. Box 1760
Portland, OR 97207

8/10/82

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-7813, and ask for the Department of Environmental Quality.

1-800-452-4011



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