Title 40—Protection of Environment

(This book contains parts 266 to 299)

Part

CHAPTER I—Environmental Protection Agency (Continued) 266
## CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)


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SOURCE: 50 FR 666, Jan. 4, 1985, unless otherwise noted.

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 or combination with any other substance(s). 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 products so as to become inseparable by physical means and if such products meet the applicable treatment standards in subpart D of part 268 (or applicable prohibition levels in §268.32 of this chapter or RCRA section 3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain, and the recycler complies with §268.7(b)(6) of this chapter.

(c) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption.
in paragraph (b) of this section and remain subject to regulation.
(d) Fertilizers that contain recyclable materials are not subject to regulation provided that:
   (1) They are zinc fertilizers excluded from the definition of solid waste according to §261.4(a)(21) of this chapter; or
   (2) They meet the applicable treatment standards in subpart D of Part 268 of this chapter for each hazardous waste that they contain.
§ 266.21 Standards applicable to generators and transporters of materials used in a manner that constitutes 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, 265 and 267, 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.
(a) 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 124, 264, 265, 268, and 270 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.
(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.
§ 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; and
   (3) For precious metals exported to or imported from designated OECD member countries for recovery, subpart H of part 262 and §265.12(a)(2) of this chapter. For precious metals exported to or imported from non-OECD countries for recovery, subparts E and F of 40 CFR part 262.
(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):
   (1) Records showing the volume of these materials stored at the beginning of the calendar year;
   (2) The amount of these materials generated or received during the calendar year; and
§ 266.80

(3) 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, 267, 270, and 124 of this chapter.

(50 FR 666, Jan. 4, 1985, as amended at 61 FR 16315, Apr. 12, 1996; 71 FR 40277, July 14, 2006; 75 FR 13007, Mar. 18, 2010)

Subpart G—Spent Lead-Acid Batteries Being Reclaimed

§ 266.80 Applicability and requirements.

(a) Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the “Universal Waste” rule in 40 CFR part 273.

<table>
<thead>
<tr>
<th>If your batteries . . .</th>
<th>And if you . . .</th>
<th>Then you . . .</th>
<th>And you . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Will be reclaimed through regeneration (such as by electrolyte replacement).</td>
<td>are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 268, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA.</td>
<td>are exempt from 40 CFR parts 261 and §262.11 of this chapter.</td>
<td></td>
</tr>
<tr>
<td>(2) Will be reclaimed other than through regeneration. generate, collect, and/or transport these batteries.</td>
<td>are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA.</td>
<td>are subject to 40 CFR parts 261 and §262.11, and applicable provisions under part 268.</td>
<td></td>
</tr>
<tr>
<td>(3) Will be reclaimed other than through regeneration. store these batteries but you aren’t the reclaimer.</td>
<td>are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA.</td>
<td>are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.</td>
<td></td>
</tr>
<tr>
<td>(4) Will be reclaimed other than through regeneration. store these batteries before you reclaim them.</td>
<td>must comply with 40 CFR 266.80(b) and as appropriate other regulatory provisions described in 266.80(b).</td>
<td>are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.</td>
<td></td>
</tr>
<tr>
<td>(5) Will be reclaimed other than through regeneration. don’t store these batteries before you reclaim them.</td>
<td>are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA.</td>
<td>are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.</td>
<td></td>
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</table>
(6) Will be reclaimed through regeneration or any other means.

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<tr>
<th>If your batteries . . .</th>
<th>And if you . . .</th>
<th>Then you . . .</th>
<th>And you . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>export these batteries for reclamation in a foreign country.</td>
<td>are exempt from 40 CFR parts 263, 264, 265, 266, 268, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA. You are also exempt from part 262, except for 262.11, and except for the applicable requirements in either: (1) 40 CFR part 262 subpart H; or (2) 262.53 “Notification of Intent to Export, 262.56(a)(1) through (4)(6) and (b) “Annual Reports,” and 262.57 “Recordkeeping”.</td>
<td>are subject to 40 CFR part 261 and §262.11, and either must comply with 40 CFR part 262, subpart H if shipping to one of the OECD countries specified in 40 CFR 262.58(a)(1)), or must: (a) Comply with the requirements applicable to a primary exporter in 40 CFR 262.53, 262.56(a) (1) through (4), (5), and (b) and 262.57; and (b) Export these batteries only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in subpart E of part 262 of this chapter; and (c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export. must comply with applicable requirements in 40 CFR part 262, subpart H if shipping to one of the OECD countries specified in 40 CFR 262.58(a)(1)), or must comply with the following: (a) you may not accept a shipment if you know the shipment does not conform to the EPA Acknowledgment of Consent; (b) you must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment; and (c) you must ensure that the shipment is delivered to the facility designated by the person initiating the shipment.</td>
</tr>
</tbody>
</table>
§ 266.100  Applicability.

(a) The regulations of this subpart apply to hazardous waste burned or processed in a boiler or industrial furnace (as defined in §260.10 of this chapter) irrespective of the purpose of burning or processing, except as provided by paragraphs (b), (c), (d), (g), and (h) of this section. In this subpart, the term “burn” means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of §§266.104, 266.105, 266.106, and 266.107 apply to facilities operating under interim status or under a RCRA permit as specified in §§266.102 and 266.103.

(b) Integration of the MACT standards.

(1) Except as provided by paragraphs (b)(2), (b)(3), and (b)(4) of this section, the standards of this part do not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of part 63, subpart EEE, of this chapter by conducting a comprehensive performance test and submitting to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d) of this chapter documenting compliance with the requirements of part 63, subpart EEE, of this chapter. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of this part will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The following standards continue to apply:

(i) If you elect to comply with §270.235(a)(1)(i) of this chapter to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, §266.102(e)(1) requiring operations in accordance with the operating requirements specified in the permit at all times that hazardous waste is in the unit, and §266.102(e)(2)(iii) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;

(ii) The closure requirements of §§266.102(e)(11) and 266.103(1);

(iii) The standards for direct transfer of §§266.111;

(iv) The standards for regulation of residues of §266.112; and

(v) The applicable requirements of subparts A through H, BB and CC of parts 264 and 265 of this chapter.
(3) If you own or operate a boiler or hydrochloric acid production furnace that is an area source under § 63.2 of this chapter and you elect not to comply with the emission standards under §§ 63.1216, 63.1217, and 63.1218 of this chapter for particulate matter, semivolatile and low volatile metals, and total chlorine, you also remain subject to:

(i) Section 266.105—Standards to control particulate matter;

(ii) Section 266.106—Standards to control metals emissions, except for mercury; and

(iii) Section 266.107—Standards to control hydrogen chloride and chlorine gas.

(4) The particulate matter standard of § 266.105 remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under §§ 63.1216(e) and 63.1217(e) of this chapter.

c. The following hazardous wastes and facilities are not subject to regulation 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 part 279 of this chapter;

(2) Gas recovered from hazardous or solid waste landfills when such gas is burned for energy recovery;

(3) Hazardous wastes that are exempt from regulation under §§ 261.4 and 261.6(a)(3) (iii) and (iv) of this chapter, and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under § 261.5 of this chapter; and

(4) Coke ovens, if the only hazardous waste burned is EPA Hazardous Waste No. K087, decanter tank tar sludge from coking operations.

d. Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste) that process hazardous waste solely for metal recovery are conditionally exempt from regulation under this subpart, except for §§ 266.101 and 266.112.

(1) To be exempt from §§ 266.102 through 266.111, an owner or operator of a metal recovery furnace or mercury recovery furnace must comply with the following requirements, except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, must comply with the requirements of paragraph (d)(3) of this section, and owners or operators of lead recovery furnaces that are subject to regulation under the Secondary Lead Smelting NESHAP must comply with the requirements of paragraph (h) of this section.

(i) Provide a one-time written notice to the Director indicating the following:

(A) The owner or operator claims exemption under this paragraph;

(B) The hazardous waste is burned solely for metal recovery consistent with the provisions of paragraph (d)(2) of this section;

(C) The hazardous waste contains recoverable levels of metals; and

(D) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of this paragraph;

(ii) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of this paragraph by using appropriate methods; and

(iii) Maintain at the facility for at least three years records to document compliance with the provisions of this paragraph including limits on levels of toxic organic constituents and Btu value of the waste, and levels of recoverable metals in the hazardous waste compared to normal nonhazardous waste feedstocks.

(2) A hazardous waste meeting either of the following criteria is not processed solely for metal recovery:

(i) The hazardous waste has a total concentration of organic compounds listed in part 261, appendix VIII, of this chapter exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as-generated may be reduced to the 500
§ 266.100

ppm limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the records required by paragraph (d)(1)(ii) of this section; or

(ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the records required by paragraph (d)(1)(ii) of this section.

(3) To be exempt from §§ 266.102 through 266.111, an owner or operator of a lead or nickel-chromium or mercury recovery furnace (except for owners or operators of lead recovery furnaces subject to regulation under the Secondary Lead Smelting NESHAP) or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, must provide a one-time written notice to the Director identifying each hazardous waste burned and specifying whether the owner or operator claims an exemption for each waste under this paragraph or paragraph (d)(1) of this section. The owners or operator must comply with the requirements of paragraph (d)(1) of this section for those wastes claimed to be exempt under that paragraph and must comply with the requirements below for those wastes claimed to be exempt under this paragraph (d)(3).

(i) The hazardous wastes listed in appendices XI, XII, and XIII, part 266, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of paragraph (d)(1) of this section, provided that:

(A) A waste listed in appendix XI of this part must contain recoverable levels of lead, a waste listed in appendix XII of this part must contain recoverable levels of nickel or chromium, a waste listed in appendix XIII of this part must contain recoverable levels of mercury and contain less than 500 ppm of 40 CFR part 261, appendix VIII organic constituents, and baghouse bags used to capture metallic dusts emitted by steel manufacturing must contain recoverable levels of metal; and

(B) The waste does not exhibit the Toxicity Characteristic of § 261.24 of this chapter for an organic constituent; and

(C) The waste is not a hazardous waste listed in subpart D of part 261 of this chapter because it is listed for an organic constituent as identified in appendix VII of part 261 of this chapter; and

(D) The owner or operator certifies in the one-time notice that hazardous waste is burned under the provisions of paragraph (d)(3) of this section and that sampling and analysis will be conducted or other information will be obtained as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to paragraph (d)(1)(ii) of this section and records to document compliance with paragraph (d)(3) of this section shall be kept for at least three years.

(ii) The Director may decide on a case-by-case basis that the toxic organic constituents in a material listed in appendix XI, XII, or XIII of this part that contains a total concentration of more than 500 ppm toxic organic compounds listed in appendix VIII, part 261 of this chapter, may pose a hazard to human health and the environment when burned in a metal recovery furnace exempt from the requirements of this subpart. In that situation, after adequate notice and opportunity for comment, the metal recovery furnace will become subject to the requirements of this subpart when burning that material. In making the hazard determination, the Director will consider the following factors:

(A) The concentration and toxicity of organic constituents in the material; and

(B) The level of destruction of toxic organic constituents provided by the furnace; and

(C) Whether the acceptable ambient levels established in appendices IV or V of this part may be exceeded for any toxic organic compound that may be
emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.

(e) The standards for direct transfer operations under §266.111 apply only to facilities subject to the permit standards of §266.102 or the interim status standards of §266.103.

(f) The management standards for residues under §266.112 apply to any boiler or industrial furnace burning hazardous waste.

(g) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces) that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under this subpart, except for §266.112. To be exempt from §§266.101 through 266.111, an owner or operator must:

(1) Provide a one-time written notice to the Director indicating the following:

(i) The owner or operator claims exemption under this paragraph;

(ii) The hazardous waste is burned for legitimate recovery of precious metal; and

(iii) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of this paragraph; and

(2) Sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

(3) Maintain at the facility for at least three years records to document that all hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.

(h) Starting June 23, 1997, owners or operators of lead recovery furnaces that process hazardous waste for recovery of lead that are subject to regulation under the Secondary Lead Smelting NESHAP, are conditionally exempt from regulation under this subpart, except for §266.101. To be exempt, an owner or operator must provide a one-time notice to the Director identifying each hazardous waste burned and specifying that the owner or operator claims an exemption under this paragraph. The notice also must state that the waste burned has a total concentration of non-metal compounds listed in part 261, appendix VIII, of this chapter of less than 500 ppm by weight, as fired and as provided in paragraph (d)(2)(i) of this section, or is listed in appendix XI to this part 266.

[56 FR 7208, Feb. 21, 1991]

Editorial Note: For Federal Register citations affecting §266.100, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.
§ 266.102 Permit standards for burners.

(a) Applicability—(1) General. Owners and operators of boilers and industrial furnaces burning hazardous waste and not operating under interim status must comply with the requirements of this section and §§ 270.22 and 270.66 of this chapter, unless exempt under the small quantity burner exemption of § 266.108.

(2) Applicability of part 264 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following provisions of part 264 of this chapter, except as provided otherwise by this subpart:

(i) In subpart A (General), 264.4;
(ii) In subpart B (General facility standards), §§ 264.11–264.18;
(iii) In subpart C (Preparedness and prevention), §§ 264.31–264.37;
(iv) In subpart D (Contingency plan and emergency procedures), §§ 264.51–264.56;
(v) In subpart E (Manifest system, recordkeeping, and reporting), the applicable provisions of §§ 264.71–264.77;
(vi) In subpart F (Releases from Solid Waste Management Units), §§ 264.90 and 264.101;
(vii) In subpart G (Closure and post-closure), §§ 264.111–264.115;
(viii) In subpart H (Financial requirements), §§ 264.141, 264.142, 264.143, and 264.147–264.151, except that States and the Federal government are exempt from the requirements of subpart H; and
(ix) Subpart BB (Air emission standards for equipment leaks), except §§ 264.1050(a).

(b) Hazardous waste analysis. (1) The owner or operator must provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in appendix VIII of part 261 of this chapter that may reasonably be expected to be in the waste. Such constituents must be identified and quantified if present, at levels detectable by using appropriate analytical procedures. The appendix VIII, part 261 constituents excluded from this analysis must be identified and the basis for their exclusion explained. This analysis will be used to provide all information required by this subpart and §§ 270.22 and 270.66 of this chapter and to enable the permit writer to prescribe such permit conditions as necessary to protect human health and the environment. Such analysis must be included as a portion of the part B permit application, or, for facilities operating under the interim status standards of this subpart, as a portion of the trial burn plan that may be submitted before the part B application under provisions of § 270.66(g) of this chapter as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards must provide the information required by §§ 270.22 or 270.66(c) of this chapter in the part B application to the greatest extent possible.

(2) Throughout normal operation, the owner or operator must conduct sampling and analysis as necessary to ensure that the hazardous waste, other fuels, and industrial furnace feedstocks fired into the boiler or industrial furnace are within the physical and chemical composition limits specified in the permit.

(c) Emissions standards. Owners and operators must comply with emissions standards provided by §§ 266.104 through 266.107.

(d) Permits. (1) The owner or operator may burn only hazardous wastes specified in the facility permit and only under the operating conditions specified under paragraph (e) of this section, except in approved trial burns under the conditions specified in §270.66 of this chapter.

(2) Hazardous wastes not specified in the permit may not be burned until operating conditions have been specified under a new permit or 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 § 270.22 of this chapter.
(3) Boilers and industrial furnaces operating under the interim status standards of §266.103 are permitted under procedures provided by §270.66(g) of this chapter.

(4) A permit for a new boiler or industrial furnace (those boilers and industrial furnaces not operating under the interim status standards) must establish appropriate conditions for each of the applicable requirements of this section, including but not limited to allowable hazardous waste firing rates and operating conditions necessary to meet the requirements of paragraph (e) of this section, in order to comply with the following standards:

(i) For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements must be those most likely to ensure compliance with the emission standards §§266.104 through 266.107, based on the Director's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial period of operation shall include those specified by the applicable provisions of §266.104, §266.105, §266.106, or §266.107. The Director may extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(ii) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the emissions standards of §§266.104 through 266.107 and must be in accordance with the approved trial burn plan;

(iii) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn results, the operating requirements must be those most likely to ensure compliance with the emission standards §§266.104 through 266.107 based on the Director's engineering judgment.

(iv) For the remaining duration of the permit, the operating requirements must be those demonstrated in a trial burn or by alternative data specified in §270.22 of this chapter, as sufficient to ensure compliance with the emissions standards of §§266.104 through 266.107.

(e) Operating requirements—(1) General. A boiler or industrial furnace burning hazardous waste must be operated in accordance with the operating requirements specified in the permit at all times where there is hazardous waste in the unit.

(2) Requirements to ensure compliance with the organic emissions standards—(1) DRE standard. Operating conditions will be specified either on a case-by-case basis for each hazardous waste burned as those demonstrated (in a trial burn or by alternative data as specified in §270.22) to be sufficient to comply with the destruction and removal efficiency (DRE) performance standard of §266.104(a) or as those special operating requirements provided by §266.104(a)(4) for the waiver of the DRE trial burn. When the DRE trial burn is not waived under §266.104(a)(4), each set of operating requirements will specify the composition of the hazardous waste (including acceptable variations in the physical and chemical properties of the hazardous waste which will not affect compliance with the DRE performance standard) to which the operating requirements apply. For each such hazardous waste, the permit will specify acceptable operating limits including, but not limited to, the following conditions as appropriate:

(A) Feed rate of hazardous waste and other fuels measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Appropriate controls of the hazardous waste firing system;
(D) Allowable variation in boiler and industrial furnace system design or operating procedures;

(E) Minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured and specified as prescribed in paragraph (e)(6) of this section;

(F) An appropriate indicator of combustion gas velocity, measured and specified as prescribed in paragraph (e)(6) of this section, unless documentation is provided under §266.104 of this chapter demonstrating adequate combustion gas residence time; and

(G) Such other operating requirements as are necessary to ensure that the DRE performance standard of §266.104(a) is met.

(ii) Carbon monoxide and hydrocarbon standards. The permit must incorporate a carbon monoxide (CO) limit and, as appropriate, a hydrocarbon (HC) limit as provided by paragraphs (b), (c), (d), (e) and (f) of §266.104. The permit limits will be specified as follows:

(A) When complying with the CO standard of §266.104(b)(1), the permit limit is 100 ppmv;

(B) When complying with the alternative CO standard under §266.104(c), the permit limit for CO is based on the trial burn and is established as the average over all valid runs of the highest hourly rolling average CO level of each run, and the permit limit for HC is 20 ppmv (as defined in §266.104(c)(1)), except as provided in §266.104(f).

(C) When complying with the alternative HC limit for industrial furnaces under §266.104(f), the permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by that paragraph.

(iii) Start-up and shut-down. During start-up and shut-down of the boiler or industrial furnace, hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine, and except low risk waste exempt from the trial burn requirements under §§266.104(a)(5), 266.105, 266.106, and 266.107) must not be fed into the device unless the device is operating within the conditions of operation specified in the permit.

(3) Requirements to ensure conformance with the particulate standard. (i) Except as provided in paragraphs (e)(3) (ii) and (iii) of this section, the permit shall specify the following operating requirements to ensure conformance with the particulate standard specified in §266.105:

(A) Total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(D) Allowable variation in boiler and industrial furnace system design or operating procedures;

(E) Such other operating requirements as are necessary to ensure that the particulate standard in §266.105(a) is met.

(ii) Permit conditions to ensure conformance with the particulate matter standard shall not be provided for facilities exempt from the particulate matter standard under §266.105(b);

(iii) For cement kilns and lightweight aggregate kilns, permit conditions to ensure compliance with the particulate standard shall not limit the ash content of hazardous waste or other feed materials.

(4) Requirements to ensure conformance with the metals emissions standard. (i) For conformance with the Tier I (or adjusted Tier I) metals feed rate screening limits of paragraphs (b) or (e) of §266.106, the permit shall specify the following operating requirements:

(A) Total feed rate of each metal in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified under provisions of paragraph (e)(6) of this section;

(B) Total feed rate of hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) A sampling and metals analysis program for the hazardous waste, other
fuels, and industrial furnace feedstocks:

(ii) For conformance with the Tier II metals emission rate screening limits under §266.106(c) and the Tier III metals controls under §266.106(d), the permit shall specify the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;
(B) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in paragraph (e)(6)(i) of this section;
(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraphs (e)(6) of this section:
  (1) Total feedstreams;
  (2) Total hazardous waste feed; and
  (3) Total pumpable hazardous waste feed;
(D) Total feed rate of chlorine and chloride in total feedstreams measured and specified as prescribed in paragraph (e)(6) of this section;
(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (e)(6) of this section;
(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (e)(6) of this section;
(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (e)(6) of this section;
(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;
(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and
(J) Such other operating requirements as are necessary to ensure that the metals standards under §§266.106(c) or 266.106(d) are met.

(iii) For conformance with an alternative implementation approach approved by the Director under §266.106(f), the permit will specify the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;
(B) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in paragraph (e)(6)(i) of this section;
(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraph (e)(6) of this section:
  (1) Total hazardous waste feed; and
  (2) Total pumpable hazardous waste feed;
(D) Total feed rate of chlorine and chloride in total feedstreams measured and specified as prescribed in paragraph (e)(6) of this section;
(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (e)(6) of this section;
(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (e)(6) of this section;
(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (e)(6) of this section;
(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;
(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and
(J) Such other operating requirements as are necessary to ensure that the metals standards under §§266.106(c) or 266.106(d) are met.

(5) Requirements to ensure conformance with the hydrogen chloride and chlorine gas standards. (i) For conformance with the Tier I total chloride and chlorine feed rate screening limits of §266.107(b)(1), the permit will specify the following operating requirements:

(A) Feed rate of total chloride and chlorine in hazardous waste, other fuels, and industrial furnace feedstocks
measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Feed rate of total hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) A sampling and analysis program for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks;

(ii) For conformance with the Tier II HCl and Cl₂ emission rate screening limits under §266.107(b)(2) and the Tier III HCl and Cl₂ controls under §266.107(c), the permit will specify the following operating requirements:

(A) Maximum emission rate for HCl and for Cl₂ specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Total feed rate of chlorine and chloride in total feedstreams, measured and specified as prescribed in paragraph (e)(6) of this section;

(D) Maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (e)(6) of this section;

(E) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(F) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(G) Such other operating requirements as are necessary to ensure that the HCl and Cl₂ standards under §266.107(b)(2) or (c) are met.

6 Measuring parameters and establishing limits based on trial burn data—(i) General requirements. As specified in paragraphs (e)(2) through (e)(5) of this section, each operating parameter shall be measured, and permit limits on the parameter shall be established, according to either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the permit limit specified as the time-weighted average during all valid runs of the trial burn; or

(B) Hourly rolling average. (1) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(ii) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(2) The permit limit for the parameter shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average value for each run.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (i.e., arsenic, beryllium, cadmium and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (e)(6)(i) of this section or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an average period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

1 A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

2 The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of the preceding clock hour; and

(C) The permit limit for the feed rate of each metal shall be established
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based on trial burn data as the average over all valid test runs of the highest hourly rolling average feed rate for each run.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (e)(6) (i) and (ii) of this section.

(iv) Conduct of trial burn testing. (A) If compliance with all applicable emissions standards of §§266.104 through 266.107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the emissions standards of §§266.104 through 266.107 or establishing limits on operating parameters under this section, the facility must operate under trial burn conditions for a sufficient period to reach steady-state operations. The Director may determine, however, that industrial furnaces that recycle collected particulate matter back into the furnace and that comply with an alternative implementation approach for metals under §266.106(f) need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals emissions.

(C) Trial burn data on the level of an operating parameter for which a limit must be established in the permit must be obtained during emissions sampling for the pollutant(s) (i.e., metals, PM, HCl/Cl₂, organic compounds) for which the parameter must be established as specified by paragraph (e) of this section.

(7) General requirements—(i) Fugitive emissions. Fugitive emissions must be controlled by:

(A) Keeping the combustion zone totally sealed against fugitive emissions; or

(B) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(C) 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.

(ii) Automatic waste feed cutoff. A boiler or industrial furnace must be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established under this section. The Director may limit the number of cutoffs per an operating period on a case-by-case basis. In addition:

(A) The permit limit for (the indicator of) minimum combustion chamber temperature must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber.

(B) Exhaust gases must be ducted to the air pollution control system operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and

(C) Operating parameters for which permit limits are established must continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the permit limits. For parameters that may be monitored on an instantaneous basis, the Director will establish a minimum period of time after a waste feed cutoff during which the parameter must not exceed the permit limit before the hazardous waste feed may be restarted.

(iii) Changes. A boiler or industrial furnace must cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits as specified in the permit.

(B) Monitoring and Inspections. (i) The owner or operator must monitor and
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record the following, at a minimum, while burning hazardous waste:

(A) If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and total chloride and chlorine;

(B) If specified by the permit, carbon monoxide (CO), hydrocarbons (HC), and oxygen on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with operating requirements specified in paragraph (e)(2)(ii) of this section. CO, HC, and oxygen monitors must be installed, operated, and maintained in accordance with methods specified in appendix IX of this part.

(C) Upon the request of the Director, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feedstocks as appropriate), residues, and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the applicable standards of §§266.104, 266.105, 266.106, and 266.107.

(ii) All monitors shall record data in units corresponding to the permit limit unless otherwise specified in the permit.

(iii) The boiler or industrial furnace and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(iv) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the applicant demonstrates to the Director that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. At a minimum, operational testing must be conducted at least once every 30 days.

(v) These monitoring and inspection data must be recorded and the records must be placed in the operating record required by §264.73 of this chapter.

(9) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator must comply with §266.111.

(10) Recordkeeping. The owner or operator must maintain in the operating record of the facility all information and data required by this section for five years.

(11) 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 boiler or industrial furnace.

(iii) If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the facility must comply with the applicable regulations dealing with permit modifications in §270.42 or changes in interim status in §270.72 of this chapter.

(2) Exemptions. The requirements of this section do not apply to hazardous waste and facilities exempt under §§266.100(b), or 266.108.

(3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes may not be burned in a boiler or industrial furnace operating under interim status: F020, F021, F022, F023, F026, and F027.

(4) Applicability of part 265 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of part 265 of this chapter, except as provided otherwise by this section:

(i) In subpart A (General), §265.4;
(ii) In subpart B (General facility standards), §§265.11–265.17;
(iii) In subpart C (Preparedness and prevention), §§265.31–265.37;
(iv) In subpart D (Contingency plan and emergency procedures), §§265.51–265.56;
(v) In subpart E (Manifest system, recordkeeping, and reporting), §§265.71–265.77, except that §§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;

(vi) In subpart G (Closure and post-closure), §§265.111–265.115;
(vii) In subpart H (Financial requirements), §§265.141, 265.142, 265.143, and 265.147–265.150, except that States and the Federal government are exempt from the requirements of subpart H; and

(viii) Subpart BB (Air emission standards for equipment leaks), except §265.1050(a).

(5) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see paragraph (a)(5)(i) of this section) at any location other than the hot end where products are normally discharged or where fuels are normally fired:

(i) Controls. (A) The hazardous waste shall be fed at a location where combustion gas temperatures are at least 1800 °F;

(B) The owner or operator must determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;

(C) For cement kiln systems, the hazardous waste shall be fed into the kiln;

and

(D) The hydrocarbon controls of §266.104(c) or paragraph (c)(5) of this section apply upon certification of compliance under paragraph (c) of this section irrespective of the CO level achieved during the compliance test.

(ii) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than solely as an ingredient if it meets either of these criteria:

(A) The hazardous waste has a total concentration of nonmetal compounds listed in part 261, appendix VIII, of this chapter exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the facility record; or

(B) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended must be retained in the facility record.

(6) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under paragraph
(c) of this section, owners and operators shall not feed hazardous waste that has a heating value less than 5,000 Btu/lb, as-generated, (except that the heating value of a waste as-generated may be increased to above the 5,000 Btu/lb limit by *bona fide* treatment; however, blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records must be kept to document that impermissible blending has not occurred) in a boiler or industrial furnace, except that:

(i) Hazardous waste may be burned solely as an ingredient; or

(ii) Hazardous waste may be burned for purposes of compliance testing (or testing prior to compliance testing) for a total period of time not to exceed 720 hours; or

(iii) Such waste may be burned if the Director has documentation to show that, prior to August 21, 1991:

(A) The boiler or industrial furnace is operating under the interim status standards for incinerators provided by subpart O of part 265 of this chapter, or the interim status standards for thermal treatment units provided by subpart P of part 265 of this chapter; and

(B) The boiler or industrial furnace met the interim status eligibility requirements under §270.70 of this chapter for subpart O or subpart P of part 265 of this chapter; and

(C) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or

(iv) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under §261.2(e) of this chapter prior to February 21, 1991 and documentation is kept on file supporting this claim.

(b) *Certification of precompliance*.—(1) General. The owner or operator must provide complete and accurate information specified in paragraph (b)(2) of this section to the Director on or before August 21, 1991, and must establish limits for the operating parameters specified in paragraph (b)(3) of this section. Such information is termed a "certification of precompliance" and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits specified in paragraph (b)(3) of this section, the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, and HCl and Cl₂ are not likely to exceed the limits provided by §§266.105, 266.106, and 266.107. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under paragraph (b)(3) of this section until the owner or operator submits a revised certification of precompliance under paragraph (b)(8) of this section or a certification of compliance under paragraph (c) of this section, or until a permit is issued.

(2) Information required. The following information must be submitted with the certification of precompliance to support the determination that the limits established for the operating parameters identified in paragraph (b)(3) of this section are not likely to result in an exceedance of the allowable emission rates for particulate matter, metals, and HCl and Cl₂:

(i) General facility information:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Description of boilers and industrial furnaces burning hazardous waste, including type and capacity of device;

(D) A scaled plot plan showing the entire facility and location of the boilers and industrial furnaces burning hazardous waste; and

(E) A description of the air pollution control system on each device burning hazardous waste, including the temperature of the flue gas at the inlet to the particulate matter control system.

(ii) Except for facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by §§266.106 (b) or (e) and 266.107 (b)(1) or (e), respectively, the estimated uncontrolled (at the inlet to the air pollution control system) emissions of particulate matter, each metal controlled by §266.106, and hydrogen chloride and chlorine, and the following information to support such determinations:
(A) The feed rate (lb/hr) of ash, chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream (hazardous waste, other fuels, industrial furnace feedstocks);

(B) The estimated partitioning factor to the combustion gas for the materials identified in paragraph (b)(2)(ii)(A) of this section and the basis for the estimate and an estimate of the partitioning to HCl and Cl₂ of total chloride and chlorine in feed materials. To estimate the partitioning factor, the owner or operator must use either best engineering judgment or the procedures specified in appendix IX of this part.

(C) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emission standards under paragraph (c)(3)(ii)(A), the estimated enrichment factor for each metal. To estimate the enrichment factor, the owner or operator must use either best engineering judgment or the procedures specified in "Alternative Methodology for Implementing Metals Controls" in appendix IX of this part.

(D) If best engineering judgment is used to estimate partitioning factors or enrichment factors under paragraphs (b)(2)(ii)(B) or (b)(2)(ii)(C) respectively, the basis for the judgment. When best engineering judgment is used to develop or evaluate data or information and make determinations under this section, the determinations must be made by a qualified, registered professional engineer and a certification of his/her determinations in accordance with §270.11(d) of this chapter must be provided in the certification of precompliance.

(iii) For facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by §§266.106 (b) or (e) and 266.107 (b)(1) or (e), the feed rate (lb/hr) of total chloride and chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feed stream (hazardous waste, other fuels, industrial furnace feedstocks).

(iv) For facilities complying with the Tier II or Tier III emission limits for metals or HCl and Cl₂ (under §§266.106 (c) or (d) or 266.107(b)(2) or (c)), the estimated controlled (outlet of the air pollution control system) emissions rates of particulate matter, each metal controlled by §266.106, and HCl and Cl₂, and the following information to support such determinations:

(A) The estimated air pollution control system (APCS) removal efficiency for particulate matter, HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium.

(B) To estimate APCS removal efficiency, the owner or operator must use either best engineering judgment or the procedures prescribed in appendix IX of this part.

(C) If best engineering judgment is used to estimate APCS removal efficiency, the basis for the judgment. Use of best engineering judgment must be in conformance with provisions of paragraph (b)(2)(ii)(D) of this section.

(v) Determination of allowable emissions rates for HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium, and the following information to support such determinations:

(A) For all facilities:

1. Physical stack height:
2. Good engineering practice stack height as defined by 40 CFR 51.100(i);
3. Maximum flue gas flow rate;
4. Maximum flue gas temperature;
5. Attach a US Geological Service topographic map (or equivalent) showing the facility location and surrounding land within 5 km of the facility;
6. Identify terrain type: complex or noncomplex; and
7. Identify land use: urban or rural.

(B) For owners and operators using Tier III site specific dispersion modeling to determine allowable levels under §266.106(d) or §266.107(c), or adjusted Tier I feed rate screening limits under §§266.106(e) or 266.107(e):

1. Dispersion model and version used;
2. Source of meteorological data;
3. The dilution factor in micrograms per cubic meter per gram per second of
emissions for the maximum annual average off-site (unless on-site is required) ground level concentration (MEI location); and

(4) Indicate the MEI location on the map required under paragraph (b)(2)(v)(A)(5);

(vi) For facilities complying with the Tier II or III emissions rate controls for metals or HCl and Cl₂, a comparison of the estimated controlled emissions rates determined under paragraph (b)(2)(iv) with the allowable emission rates determined under paragraph (b)(2)(v);

(vii) For facilities complying with the Tier I (or adjusted Tier I) feed rate screening limits for metals or total chloride and chlorine, a comparison of actual feed rates of each metal and total chlorine and chloride determined under paragraph (b)(2)(iii) of this section to the Tier I allowable feed rates; and

(viii) For industrial furnaces that feed hazardous waste for any purpose other than solely as an ingredient (as defined by paragraph (a)(5)(ii) of this section) at any location other than the product discharge end of the device, documentation of compliance with the requirements of paragraphs (a)(5)(i) (A), (B), and (C) of this section.

(ix) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under paragraph (c)(3)(ii)(A) of this section:

(A) The applicable particulate matter standard in lb/hr; and

(B) The precompliance limit on the concentration of each metal in collected PM.

(3) Limits on operating conditions. The owner and operator shall establish limits on the following parameters consistent with the determinations made under paragraph (b)(2) of this section and certify (under provisions of paragraph (b)(8) of this section) to the Director that the facility will operate within the limits during interim status when there is hazardous waste in the unit until revised certification of precompliance under paragraph (b)(8) of this section or certification of compliance under paragraph (c) of this section:

(i) Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under §266.106 (b) or (e)) pumpable hazardous waste;

(ii) Feed rate of each metal in the following feed streams:

(A) Total feed streams, except that industrial furnaces that comply with the alternative metals implementation approach under paragraph (b)(4) of this section must specify limits on the concentration of each metal in collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106 (b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under §266.106 (b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams;

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; and

(v) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under §266.107 (b)(1) or (e) and for all metals under §266.106 (b) or (e), and the uncontrolled particulate emissions do not exceed the standard under §266.105.

(4) Operating requirements for furnaces that recycle PM. Owners and operators of furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions controls under paragraph (c)(3)(ii)(A) of this section must comply with the special operating requirements provided in “Alternative Methodology for Implementing Metals Controls” in appendix IX of this part.

(5) Measurement of feed rates and production rate—(i) General requirements. Limits on each of the parameters specified in paragraph (b)(3) of this section (except for limits on metals concentrations in collected particulate matter (PM) for industrial furnaces that recycle collected PM) shall be established
and continuously monitored under either of the following methods:

(A) **Instantaneous limits.** A limit for a parameter may be established and continuously monitored and recorded on an instantaneous basis (i.e., the value that occurs at any time) not to be exceeded at any time; or

(B) **Hourly rolling average limits.** A limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(1) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(2) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(ii) **Rolling average limits for carcinogenic metals and lead.** Feed rate limits for the carcinogenic metals (arsenic, beryllium, cadmium, and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (b)(5)(i)(B) or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(1) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(2) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour.

(iii) **Feed rate limits for metals, total chloride and chlorine, and ash.** Feed rate limits for metals, total chloride and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (b)(5) (i) and (ii) of this section.

(6) **Public notice requirements at precompliance.** On or before August 21, 1991 the owner or operator must submit a notice with the following information for publication in a major local newspaper of general circulation and send a copy of the notice to the appropriate units of State and local government. The owner and operator must provide to the Director with the certification of precompliance evidence of submitting the notice for publication. The notice, which shall be entitled “Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of 40 CFR 266.103(b)”, must include:

(i) Name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;

(ii) Date that the certification of precompliance is submitted to the Director;

(iii) Brief description of the regulatory process required to comply with the interim status requirements of this section including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl₂;

(iv) Types and quantities of hazardous waste burned including, but not limited to, source, whether solids or liquids, as well as an appropriate description of the waste;

(v) Type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;

(vi) Types and quantities of other fuels and industrial furnace feedstocks fed to each unit;

(vii) Brief description of the basis for this certification of precompliance as specified in paragraph (b)(2) of this section;
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(viii) Locations where the record for the facility can be viewed and copied by interested parties. These records and locations shall at a minimum include:

(A) The administrative record kept by the Agency office where the supporting documentation was submitted or another location designated by the Director; and

(B) The BIF correspondence file kept at the facility site where the device is located. The correspondence file must include all correspondence between the facility and the Director, State and local regulatory officials, including copies of all certifications and notifications, such as the precompliance certification, precompliance public notice, notice of compliance testing, compliance test report, compliance certification, time extension requests and approvals or denials, enforcement notifications of violations, and copies of EPA and State site visit reports submitted to the owner or operator.

(ix) Notification of the establishment of a facility mailing list whereby interested parties shall notify the Agency that they wish to be placed on the mailing list to receive future information and notices about this facility; and

(x) Location (mailing address) of the applicable EPA Regional Office, Hazardous Waste Division, where further information can be obtained on EPA regulation of hazardous waste burning.

(7) Monitoring other operating parameters. When the monitoring systems for the operating parameters listed in paragraphs (c)(1) (v through xiii) of this section are installed and operating in conformance with vendor specifications or (for CO, HC, and oxygen) specifications provided by appendix IX of this part, as appropriate, the parameters shall be continuously monitored and records shall be maintained in the operating record.

(8) Revised certification of precompliance. The owner or operator may revise at any time the information and operating conditions documented under paragraphs (b)(2) and (b)(3) of this section in the certification of precompliance by submitting a revised certification of precompliance under procedures provided by those paragraphs.

(i) The public notice requirements of paragraph (b)(6) of this section do not apply to recertifications.

(ii) The owner and operator must operate the facility within the limits established for the operating parameters under paragraph (b)(3) of this section until a revised certification is submitted under this paragraph or a certification of compliance is submitted under paragraph (c) of this section.

(9) Certification of precompliance statement. The owner or operator must include the following signed statement with the certification of precompliance submitted to the Director:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of §266.103(b) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, 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.

I also acknowledge that the operating limits established in this certification pursuant to §266.103(b) (3) and (4) are enforceable limits at which the facility can legally operate during interim status until: (1) A revised certification of precompliance is submitted, (2) a certification of compliance is submitted, or (3) an operating permit is issued."

(c) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of §§266.104 (b) through (e), 266.105, 266.106, 266.107, and paragraph (a)(5)(i)(D) of this section, under the procedures prescribed by this paragraph, except under extensions of time provided by paragraph (c)(7). Based on the compliance test, the owner or operator shall submit to the Director on or before August
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21, 1992 a complete and accurate “certification of compliance” (under paragraph (c)(4) of this section) with those emission standards establishing limits on the operating parameters specified in paragraph (c)(1).

(1) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test (under procedures prescribed in paragraph (c)(4)(iv) of this section) or as otherwise specified and include these limits with the certification of compliance. The boiler or industrial furnace must be operated in accordance with these operating limits and the applicable emissions standards of §§266.104(b) through (e), 266.105, 266.106, 266.107, and 266.103(a)(5)(i)(D) at all times when there is hazardous waste in the unit:

(i) Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under §266.106(b) or (e)), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feedstreams:

(A) Total feedstreams, except that:

(1) Facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their operating limits at the metals feed rate screening limits determined under §266.106(b)(1) or (e); and

(2) Industrial furnaces that must comply with the alternative metals implementation approach under paragraph (c)(3)(ii) of this section must specify limits on the concentration of each metal in the collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e)); and

(C) Total pumpable hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e));

(iii) Total feed rate of chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under §266.107(b)(1) or (e);

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(v) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas. When complying with the CO controls of §266.104(b), the CO limit is 100 ppmv, and when complying with the HC controls of §266.104(c), the HC limit is 20 ppmv. When complying with the CO controls of §266.104(c), the CO limit is established based on the compliance test;

(vi) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under §266.107(b)(1) or (e) and for all metals under §266.106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under §266.105;

(vii) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b)(1) or (e));

(viii) Maximum flue gas temperature entering a particulate matter control device (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b) or (e));

(ix) For systems using wet scrubbers, including wet ionizing scrubbers (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b)(1) or (e));

(A) Minimum liquid to flue gas ratio;

(B) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and

(C) Minimum pH level of the scrubber water;

(x) For systems using venturi scrubbers, the minimum differential gas
pressure across the venturi (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b)(1) or (e));

(i) For systems using dry scrubbers (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b)(1) or (e));

(A) Minimum caustic feed rate; and
(B) Maximum flue gas flow rate;

(ii) For systems using wet ionizing scrubbers or electrostatic precipitators (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b)(1) or (e));

(A) Minimum electrical power in kilovolt amperes (kVA) to the precipitator plates; and
(B) Maximum flue gas flow rate;

(iii) For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under §266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under §266.107(b)(1) or (e));

(A) Minimum caustic feed rate; and
(B) Maximum flue gas flow rate;

(iv) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by paragraph (c)(3) of this section, the owner or operator shall notify the Director and submit the following information:

(i) General facility information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;

(D) Planned date of the compliance test;

(ii) Specific information on each device to be tested including:

(A) Description of boiler or industrial furnace;

(B) A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;

(C) A description of the air pollution control system;

(D) Identification of the continuous emission monitors that are installed, including:

(1) Carbon monoxide monitor;

(2) Oxygen monitor;

(3) Hydrocarbon monitor, specifying the minimum temperature of the system and, if the temperature is less than 150 °C, an explanation of why a heated system is not used (see paragraph (c)(5) of this section) and a brief description of the sample gas conditioning system;

(E) Indication of whether the stack is shared with another device that will be in operation during the compliance test;

(F) Other information useful to an understanding of the system design or operation.

(iii) Information on the testing planned, including a complete copy of the test protocol and Quality Assurance/Quality Control (QA/QC) plan, and a summary description for each test providing the following information at a minimum:

(A) Purpose of the test (e.g., demonstrate compliance with emissions of particulate matter); and

(B) Planned operating conditions, including levels for each pertinent parameter specified in paragraph (c)(1) of this section.

(2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by paragraph (c)(3) of this section, the owner or operator shall notify the Director and submit the following information:

(i) General facility information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;

(D) Planned date of the compliance test;

(ii) Specific information on each device to be tested including:

(A) Description of boiler or industrial furnace;

(B) A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;
a similar unit if he finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of § 266.103(c).

(ii) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system must comply with one of the following procedures for testing to determine compliance with the metals standards of § 266.106(c) or (d):

(A) The special testing requirements prescribed in "Alternative Method for Implementing Metals Controls" in appendix IX of this part; or

(B) Stack emissions testing for a minimum of 6 hours each day while hazardous waste is burned during interim status. The testing must be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the air pollution control system is operated under normal conditions. During interim status, hazardous waste analysis for metals content must be sufficient for the owner or operator to determine if changes in metals content may affect the ability of the facility to meet the metals emissions standards established under § 266.106(c) or (d). Under this option, operating limits (under paragraph (c)(1) of this section) must be established during compliance testing under paragraph (c)(3) of this section only on the following parameters:

(1) Feed rate of total hazardous waste;

(2) Total feed rate of chlorine and chloride in total feed streams;

(3) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(4) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas;

(5) Maximum production rate of the device in appropriate units when producing normal product; or

(C) Conduct compliance testing to determine if the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test must be fed at the feed rates that will be fed during the compliance test.

(iii) Conduct of compliance testing. (A) If compliance with all applicable emissions standards of §§ 266.104 through 266.107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of §§ 266.104 through 266.107 or establishing limits on operating parameters under this section, the facility must operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected particulate matter back into the furnace and that comply with paragraphs (c)(3)(ii)(A) or (B) of this section, however, need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.

(C) Compliance test data on the level of an operating parameter for which a limit must be established in the certification of compliance must be obtained during emissions sampling for the pollutant(s) (i.e., metals, PM, HCl/Cl₂, organic compounds) for which the parameter must be established as specified by paragraph (c)(1) of this section.

(4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator must certify to the Director compliance with the emissions standards of §§ 266.104 (b), (c), and (e), 266.105, 266.106, 266.107, and paragraph (a)(5)(i)(D) of this section. The certification of compliance must include the following information:

(A) General facility and testing information including:

(A) EPA facility ID number;
(B) Facility name, contact person, telephone number, and address;
(C) Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;
(D) Date(s) of each compliance test;
(E) Description of boiler or industrial furnace tested;
(F) Person responsible for quality assurance/quality control (QA/QC), title, and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under §266.103(c)(2)(iii) have been followed, or a description of any changes and an explanation of why changes were necessary.
(G) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under paragraph (c)(2) of this section, and an explanation of why the changes were necessary;
(H) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under paragraph (c)(2) of this section, and an explanation of why the changes were necessary;
(I) The complete report on results of emissions testing.
(ii) Specific information on each test including:
(A) Purpose(s) of test (e.g., demonstrate conformance with the emissions limits for particulate matter, metals, HCl, Cl₂, and CO);
(B) Summary of test results for each run and for the test including the following information:
(1) Date of run;
(2) Duration of run;
(3) Time-weighted average and highest hourly rolling average CO level for each run and for the test;
(4) Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test;
(5) If dioxin and furan testing is required under §266.104(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalence factor;
(6) Time-weighted average particulate matter emissions for each run and for the test;
(7) Time-weighted average HCl and Cl₂ emissions for each run and for the test;
(8) Time-weighted average emissions for the metals subject to regulation under §266.106 for each run and for the test; and
(9) QA/QC results.
(iii) Comparison of the actual emissions during each test with the emissions limits prescribed by §§266.104(b), (c), and (e), 266.105, 266.106, and 266.107 and established for the facility in the certification of precompliance under paragraph (b) of this section.
(iv) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in paragraph (c)(1) of this section using either of the following procedures:
(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the operating limit specified as the time-weighted average during all runs of the compliance test; or
(B) Hourly rolling average basis. (1) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:
(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.
(ii) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.
(2) The operating limit for the parameter shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.
(C) Rolling average limits for carcinogenic metals and lead. Feed rate limits
for the carcinogenic metals (i.e., arsenic, beryllium, cadmium and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (c)(4)(iv)(B) of this section or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(1) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;
(2) The continuous monitor shall meet the following specifications:
   (i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.
   (ii) The rolling average for the selected averaging period is defined as arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour; and
   (3) The operating limit for the feed rate of each metal shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.
(D) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chloride and chlorine, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (c)(4)(iv) (A) through (C) of this section.
(v) Certification of compliance statement. The following statement shall accompany the certification of compliance:
   “I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of §266.103(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, 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.
   I also acknowledge that the operating conditions established in this certification pursuant to §266.103(c)(4)(iv) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted.”
(5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the hydrocarbon (HC) controls provided by §266.104(c) or paragraph (a)(5)(i)(D) of this section, a conditioned gas monitoring system may be used in conformance with specifications provided in appendix IX of this part provided that the owner or operator submits a certification of compliance without using extensions of time provided by paragraph (c)(7) of this section.
(6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system must:
   (1) When complying with the requirements of paragraph (c)(3)(i)(A) of this section, comply with the operating requirements prescribed in “Alternative Method to Implement the Metals Controls” in appendix IX of this part; and
   (ii) When complying with the requirements of paragraph (c)(3)(i)(B) of this section, comply with the operating requirements prescribed by that paragraph.
(7) Extensions of time. (i) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of §§266.104, 266.105, 266.106, and 266.107 by August 21, 1992, he/she must either:
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(A) Stop burning hazardous waste and begin closure activities under paragraph (l) of this section for the hazardous waste portion of the facility; or

(B) Limit hazardous waste burning only for purposes of compliance testing (and pretesting to prepare for compliance testing) a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Director by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or

(C) Obtain a case-by-case extension of time under paragraph (c)(7)(ii) of this section.

(ii) The owner or operator may request a case-by-case extension of time to extend any time limit provided by paragraph (c) of this section if compliance with the time limit is not practicable for reasons beyond the control of the owner or operator.

(A) In granting an extension, the Director may apply conditions as the facts warrant to ensure timely compliance with the requirements of this section and that the facility operates in a manner that does not pose a hazard to human health and the environment;

(B) When an owner or operator requests an extension of time to enable the facility to comply with the alternative hydrocarbon provisions of §266.104(f) and obtain a RCRA operating permit because the facility cannot meet the HC limit of §266.104(c) of this chapter:

(i) The Director shall, in considering whether to grant the extension:

(1) Determine whether the owner and operator have submitted in a timely manner a complete part B permit application that includes information required under §270.22(b) of this chapter; and

(2) Consider whether the owner and operator have made a good faith effort to certify compliance with all other emission controls, including the controls on dioxins and furans of §266.104(e) and the controls on PM, metals, and HCl/Cl₂.

(C) A determination that when operating under the revised operating conditions, the applicable emissions standards of §§266.104, 266.105, 266.106, and 266.107 are not likely to be exceeded. To document this determination, the owner or operator shall submit the applicable information required under paragraph (b)(2) of this section; and

(D) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of §§266.104, 266.105, 266.106, and 266.107 when operating under revised operating conditions. The protocol shall include a schedule of pretesting and compliance testing. If the
owner and operator revises the scheduled date for the compliance test, he/she shall notify the Director in writing at least 30 days prior to the revised date of the compliance test;

(iii) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Director to determine compliance with the applicable emissions standards of §§266.104, 266.105, 266.106, and 266.107; and

(iv) Submit a revised certification of compliance under paragraph (c)(4) of this section.

(d) Periodic Recertifications. The owner or operator must conduct compliance testing and submit to the Director a recertification of compliance under provisions of paragraph (c) of this section within five years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he/she must comply with the requirements of paragraph (c)(8) of this section.

(e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by paragraphs (b), (c), and (d) of this section, hazardous waste burning must terminate on the date that the deadline is missed, closure activities must begin under paragraph (l) of this section, and hazardous waste burning may not resume except under an operating permit issued under §270.66 of this chapter. For purposes of compliance with the closure provisions of paragraph (l) of this section and §§265.112(d)(2) and 265.113 of this chapter the boiler or industrial furnace has received “the known final volume of hazardous waste” on the date that the deadline is missed.

(f) Start-up and shut-down. Hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine) must not be fed into the device during start-up and shut-down of the boiler or industrial furnace, unless the device is operating within the conditions of operation specified in the certification of compliance.

(g) Automatic waste feed cutoff. During the compliance test required by paragraph (c)(3) of this section, and upon certification of compliance under paragraph (c) of this section, a boiler or industrial furnace must be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in paragraphs (c)(1)(i) and (v through xiii) of this section deviate from those established in the certification of compliance. In addition:

(i) If compliance with the combustion chamber temperature limit is based on an hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or

(ii) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and

(2) Operating parameters limited by the certification of compliance must continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.

(h) Fugitive emissions. Fugitive emissions must be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control that the owner or operator can demonstrate provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such
§ 266.104 Standards to control organic emissions.

(a) DRE standard—(1) General. Except as provided in paragraph (a)(3) of this section, a boiler or industrial furnace burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE must be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated (under paragraph (a)(2) of this section) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

\[
DRE = \left( 1 - \frac{W_{\text{out}}}{W_{\text{in}}} \right) \times 100
\]

where:

- \( W_{\text{in}} \) = Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

- \( W_{\text{out}} \) = Mass of one principal organic hazardous constituent (POHC) removed from the boiler or industrial furnace.

(b) Monitoring and Inspections. (1) The owner or operator must monitor and record the following, at a minimum, while burning hazardous waste:

(i) Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

(ii) Mass of one principal organic hazardous constituent (POHC) removed from the boiler or industrial furnace.

(2) The boiler or industrial furnace and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(3) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration shall be included in the operating record. At a minimum, operational testing must be conducted at least once every 30 days.

(4) These monitoring and inspection data must be recorded and the records must be placed in the operating log.

(k) Recordkeeping. The owner or operator must keep in the operating record of the facility all information and data required by this section for five years.

(1) 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 boiler or industrial furnace and must comply with §§ 265.111–265.115 of this chapter.

W_{am} = Mass emission rate of the same POHC present in stack gas prior to release to the atmosphere.

(2) Designation of POHCs. Principal organic hazardous constituents (POHCs) are those compounds for which compliance with the DRE requirements of this section shall be demonstrated in a trial burn in accordance with procedures prescribed in §270.66 of this chapter. One or more POHCs shall be designated by the Director for each waste feed to be burned. POHCs shall be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with part B of the permit application. POHCs are most likely to be selected from among those compounds listed in part 261, appendix VIII of this chapter that are also present in the normal waste feed. However, if the applicant demonstrates to the Regional Administrator’s satisfaction that a compound not listed in appendix VIII or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of this section, that compound may be designated as a POHC. Such POHCs need not be toxic or organic compounds.

(3) Dioxin-listed waste. A boiler or industrial furnace burning hazardous waste containing (or derived from) EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated (under paragraph (a)(2) of this section) in its permit. This performance must be demonstrated on POHCs that are more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in paragraph (a)(1) of this section. In addition, the owner or operator of the boiler or industrial furnace must notify the Director of intent to burn EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by §266.110 are considered to be in compliance with the DRE standard of paragraph (a)(1) of this section and are exempt from the DRE trial burn.

(5) Low risk waste. Owners and operators of boilers or industrial furnaces that burn hazardous waste in compliance with the requirements of §266.109(a) are considered to be in compliance with the DRE standard of paragraph (a)(1) of this section and are exempt from the DRE trial burn.

(b) Carbon monoxide standard. (1) Except as provided in paragraph (c) of this section, the stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to 7 percent oxygen, dry gas basis.

(2) CO and oxygen shall be continuously monitored in conformance with “Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinertators, Boilers, and Industrial Furnaces Burning Hazardous Waste” in appendix IX of this part.

(3) Compliance with the 100 ppmv CO limit must be demonstrated during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test must not exceed 100 ppmv.

(c) Alternative carbon monoxide standard. (1) The stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of hydrocarbons (HC) do not exceed 20 ppmv, except as provided by paragraph (f) of this section for certain industrial furnaces.

(2) HC limits must be established under this section on an hourly rolling average basis (i.e., over any 60 minute period), reported as propane, and continuously corrected to 7 percent oxygen, dry gas basis.

(3) HC shall be continuously monitored in conformance with “Performance Specifications for Continuous Emission Monitoring of Hydrocarbons...
for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste” in appendix IX of this part. CO and oxygen shall be continuously monitored in conformance with paragraph (b)(2) of this section.

(4) The alternative CO standard is established based on CO data during the trial burn (for a new facility) and the compliance test (for an interim status facility). The alternative CO standard is the average over all valid runs of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to 7 percent oxygen, dry gas basis.

(d) Special requirements for furnaces. Owners and operators of industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see §266.103(a)(5)(ii)) at any location other than the end where products are normally discharged and where fuels are normally fired must comply with the hydrocarbon limits provided by paragraphs (c) or (f) of this section irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of paragraph (b) of this section.

(e) Controls for dioxins and furans. Owners and operators of boilers and industrial furnaces that are equipped with a dry particulate matter control device that operates within the temperature range of 450–750 °F, and industrial furnaces operating under an alternative hydrocarbon limit established under paragraph (f) of this section must conduct a site-specific risk assessment as follows to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding 1 in 100,000:

(1) During the trial burn (for new facilities or an interim status facility applying for a permit) or compliance test (for interim status facilities), determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) using Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra-octa CDDs/CDFs congeners using “Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners” in appendix IX of this part. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero (see the procedure) by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;

(3) Conduct dispersion modeling using methods recommended in appendix W of part 51 of this chapter ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the “Hazardous Waste Combustion Air Quality Screening Procedure”, provided in appendix IX of this part, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (incorporated by reference in §260.11) to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under paragraph (e)(2) of this section. The maximum annual average concentration must be used when a person resides on-site; and

(4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose for 2,3,7,8-TCDD provided in appendix V of this part (2.2×10⁻⁷) shall not exceed 1.0.

(f) Monitoring CO and HC in the bypass duct of a cement kiln. Cement kilns may comply with the carbon monoxide and hydrocarbon limits provided by paragraphs (b), (c), and (d) of this section by monitoring in the by-pass duct provided that:

(1) Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and

(2) The by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.

(g) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of this section must be
demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of this section or to establish alternative CO or HC limits under this section must be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under paragraph (e) of this section and comprehensive organic emissions testing under paragraph (f) is conducted.

(b) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under §266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and re-issuance of a permit under §270.41 of this chapter.


§266.105 Standards to control particulate matter.

(a) A boiler or industrial furnace burning hazardous waste may not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) after correction to a stack gas concentration of 7% oxygen, using procedures prescribed in 40 CFR part 60, appendix A, methods 1 through 5, and appendix IX of this part.

(b) An owner or operator meeting the requirements of §266.109(b) for the low risk waste exemption is exempt from the particulate matter standard.

(c) Oxygen correction. (1) Measured pollutant levels must be corrected for the amount of oxygen in the stack gas according to the formula:

\[ P_c = P_m \times 14/(E - Y) \]

Where:

\( P_c \) is the corrected concentration of the pollutant in the stack gas, \( P_m \) is the measured concentration of the pollutant in the stack gas, \( E \) is the oxygen concentration on a dry basis in the combustion air fed to the device, and \( Y \) is the measured oxygen concentration on a dry basis in the stack.

(2) For devices that feed normal combustion air, \( E \) will equal 21 percent. For devices that feed oxygen-enriched air for combustion (that is, air with an oxygen concentration exceeding 21 percent), the value of \( E \) will be the concentration of oxygen in the enriched air.

(3) Compliance with all emission standards provided by this subpart must be based on correcting to 7 percent oxygen using this procedure.

(d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under §266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and re-issuance of a permit under §270.41 of this chapter.


§266.106 Standards to control metals emissions.

(a) General. The owner or operator must comply with the metals standards provided by paragraphs (b), (c), (d), (e), or (f) of this section for each metal listed in paragraph (b) of this section that is present in the hazardous waste at detectable levels by using appropriate analytical procedures.

(b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in appendix I of this part as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in paragraph (b) of this section.

(1) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in appendix I of this part.
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(i) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either:

(A) An hourly rolling average as defined in §266.102(e)(6)(i)(B); or

(B) An instantaneous limit not to be exceeded at any time.

(ii) The feed rate screening limit for lead is based on one of the following:

(A) An hourly rolling average as defined in §266.102(e)(6)(i)(B);

(B) An averaging period of 2 to 24 hours as defined in §266.102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or

(C) An instantaneous limit not to be exceeded at any time.

(2) Carcinogenic metals. (i) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of this part. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

\[
\sum_{i=1}^{n} \frac{AFR(i)}{FRSL(i)} \leq 1.0
\]

where:

- \( n \) = number of carcinogenic metals
- \( AFR(i) \) = actual feed rate to the device for metal "i"
- \( FRSL(i) \) = feed rate screening limit provided by appendix I of this part for metal "i".

(ii) The feed rate screening limits for the carcinogenic metals are based on either:

(A) An hourly rolling average; or

(B) An averaging period of 2 to 24 hours as defined in §266.102(e)(6)(i) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(3) TESH. (i) The terrain-adjusted effective stack height is determined according to the following equation:

\[
TESH = Ha + H1 - Tr
\]

where:

- \( Ha \) = actual physical stack height
- \( H1 \) = plume rise as determined from appendix VI of this part as a function of stack flow rate and stack gas exhaust temperature.
- \( Tr \) = terrain rise within five kilometers of the stack.

(ii) The stack height (\( Ha \)) may not exceed good engineering practice as specified in 40 CFR 51.100(ii).

(iii) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (\( Ha \)) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.

(5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of this part shall be used.

(6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls of metals emissions under a RCRA operating permit or interim status controls must comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case stack is determined from the following equation as applied to each stack:

\[
K = HVT
\]

Where:

- \( K \) = a parameter accounting for relative influence of stack height and plume rise.
- \( H \) = physical stack height (meters);
- \( V \) = stack gas flow rate (m\(^3\)/second); and
- \( T \) = exhaust temperature (°C).
The stack with the lowest value of K is the worst-case stack.

(7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities must comply with either the Tier III standards provided in paragraph (d) of this section or with the adjusted Tier I feed rate screening limits provided by paragraph (e) of this section.

(i) The device is located in a narrow valley less than one kilometer wide;
(ii) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;
(iii) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;
(iv) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or
(v) The Director determines that standards based on site-specific dispersion modeling are required.

(8) Implementation. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate screening limits are not exceeded.

(c) Tier II emission rate screening limits. Emission rate screening limits are specified in appendix I as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in paragraph (b)(7) of this section.

(1) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in appendix I of this part.

(2) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in appendix I of this part. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

\[ \sum_{i=1}^{n} \frac{AER_{(i)}}{ERSL_{(i)}} \leq 1.0 \]

where:
- n=number of carcinogenic metals
- AER=actual emission rate for metal “i”
- ERSL=emission rate screening limit provided by appendix I of this part for metal “i”.

(3) Implementation. The emission rate limits must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by paragraphs (b)(1)(i) and (ii) and (b)(2)(ii) of this section. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under §§ 266.102 or 266.103 are not exceeded.

(4) Definitions and limitations. The definitions and limitations provided by paragraph (b) of this section for the following terms also apply to the Tier II emission rate screening limits provided by paragraph (c) of this section: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(5) Multiple stacks. (i) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls must comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(ii) For each metal, the total emissions of the metal from those stacks
shall not exceed the screening limit for the worst-case stack.

(d) Tier III and Adjusted Tier I site-specific risk assessment. The requirements of this paragraph apply to facilities complying with either the Tier III or Adjusted Tier I controls, except where specified otherwise.

(1) General. Conformance with the Tier III metals controls must be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls must be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendices IV and V of this part list the acceptable ambient levels for purposes of this rule. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and $10^{-5}$ risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in paragraph (d)(3) of this section.

(3) Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations must be considered if a person resides on site) to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation:

$$\sum_{i=1}^{n} \frac{\text{Predicted Ambient Concentration}_{(i)}}{\text{Risk-Specific Dose}_{(i)}} \leq 1.0$$

where: \(n\)=number of carcinogenic metals

(4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).

(5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls must conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not conduct emissions testing) and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.

(6) Implementation. Under Tier III, the metals controls must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by paragraphs (b)(1) (i) and (ii) and (b)(2)(ii) of this section. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under §§266.102 or 266.103 are not exceeded.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by appendix I of this part to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient level provided by appendices IV and V of this part using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are

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implemented as prescribed in paragraph (b)(2) of this section.

(f) Alternative implementation approaches. (1) The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by paragraphs (c) or (d) of this section alternative to monitoring the feed rate of metals in each feedstream.

(2) The emission limits provided by paragraph (d) of this section must be determined as follows:

(i) For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of this part to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with paragraph (h) of this section; and

(ii) For each carcinogenic metal by:

(A) Back-calculating from the RSD provided in appendix V of this part to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with paragraph (h) of this section; and

(B) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by paragraph (f)(2)(ii)(A) of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that paragraph does not exceed 1.0.

(g) Emission testing—(1) General. Emission testing for HCl and Cl\(_2\) shall be conducted using Method 0060. Determinations of Metals in Stack Emissions, EPA Publication SW–846, as incorporated by reference in §260.11 of this chapter.

(2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061. Determination of Hexavalent Chromium Emissions from Stationary Sources, EPA Publication SW–846, as incorporated by reference in §260.11 of this chapter.

(h) Dispersion Modeling. Dispersion modeling required under this section shall be conducted according to methods recommended in appendix W of part 51 of this chapter ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of this part, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (incorporated by reference in §260.11) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations must be considered when a person resides on-site.

(i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under §266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and re-issuance of a permit under §270.41 of this chapter.


§ 266.107 Standards to control hydrogen chloride (HCl) and chlorine gas (Cl\(_2\)) emissions.

(a) General. The owner or operator must comply with the hydrogen chloride (HCl) and chlorine (Cl\(_2\)) controls provided by paragraph (b), (c), or (e) of this section.

(b) Screening limits—(1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in appendix II of this part as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.
(2) Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl\textsubscript{2} are specified in appendix III of this part as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl\textsubscript{2} shall not exceed the levels specified.

(3) Definitions and limitations. The definitions and limitations provided by §266.106(b) for the following terms also apply to the screening limits provided by this paragraph: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(4) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl\textsubscript{2} emissions under a RCRA operating permit or interim status controls must comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(i) The worst-case stack is determined by procedures provided in §266.106(b)(6).

(ii) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.

(iii) Under Tier II, the total emissions of HCl and Cl\textsubscript{2} from all subject stacks shall not exceed the screening limit for the worst-case stack.

(c) Tier III site-specific risk assessments—(1) General. Conformance with the Tier III controls must be demonstrated by emissions testing to determine the emission rate for HCl and Cl\textsubscript{2}, air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendix IV of this part lists the reference air concentrations (RACs) for HCl (7 micrograms per cubic meter) and Cl\textsubscript{2} (0.4 micrograms per cubic meter).

(3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl\textsubscript{2} emissions under a RCRA operating permit or interim status controls must conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl\textsubscript{2}.

(d) Averaging periods. The HCl and Cl\textsubscript{2} controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chlorine and chloride is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chlorine and chloride is limited to the feed rates during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate limits are based on either:

(1) An hourly rolling average as defined in §266.102(e)(6); or

(2) An instantaneous basis not to be exceeded at any time.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by appendix II of this part to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for Cl\textsubscript{2} provided by appendix IV of this part using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(f) Emissions testing. Emissions testing for HCl and Cl\textsubscript{2} shall be conducted using the procedures described in Methods 0050 or 0051, EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(g) Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of §266.106(h).

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in
the permit (under § 266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and re-issuance of a permit under § 270.41 of this chapter.


§ 266.108 Small quantity on-site burner exemption.

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of this subpart provided that:

(1) The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in § 266.106(b)(3):

<table>
<thead>
<tr>
<th>Terrain-adjusted effective stack height of device (meters)</th>
<th>Allowable hazardous waste burning rate (gallons/month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 3.9</td>
<td>0</td>
</tr>
<tr>
<td>4.0 to 5.9</td>
<td>13</td>
</tr>
<tr>
<td>6.0 to 7.9</td>
<td>18</td>
</tr>
<tr>
<td>8.0 to 9.9</td>
<td>27</td>
</tr>
<tr>
<td>10.0 to 11.9</td>
<td>40</td>
</tr>
<tr>
<td>12.0 to 13.9</td>
<td>48</td>
</tr>
<tr>
<td>14.0 to 15.9</td>
<td>59</td>
</tr>
<tr>
<td>16.0 to 17.9</td>
<td>69</td>
</tr>
<tr>
<td>18.0 to 19.9</td>
<td>76</td>
</tr>
<tr>
<td>20.0 to 21.9</td>
<td>84</td>
</tr>
<tr>
<td>22.0 to 23.9</td>
<td>93</td>
</tr>
<tr>
<td>24.0 to 25.9</td>
<td>100</td>
</tr>
<tr>
<td>26.0 to 27.9</td>
<td>110</td>
</tr>
<tr>
<td>28.0 to 29.9</td>
<td>130</td>
</tr>
<tr>
<td>30.0 to 34.9</td>
<td>140</td>
</tr>
<tr>
<td>35.0 to 39.9</td>
<td>170</td>
</tr>
</tbody>
</table>

(2) The maximum hazardous waste firing rate does not exceed at any time 1 percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste.

(3) The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(4) The hazardous waste fuel does not contain (and is not derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with paragraph (a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under this section, the quantity limits provided by paragraph (a)(1) of this section are implemented according to the following equation:

\[
\sum_{i=1}^{n} \frac{\text{Actual Quantity Burned}_{i}}{\text{Allowable Quantity Burned}_{i}} \leq 1.0
\]

where:

- \( n \) means the number of stacks;
- \( \text{Actual Quantity Burned}_{i} \) means the waste quantity burned per month in device "i";
- \( \text{Allowable Quantity Burned}_{i} \) means the maximum allowable exempt quantity for stack "i" from the table in (a)(1) above.

Note: Hazardous wastes that are subject to the special requirements for small quantity generators under § 261.5 of this chapter may be burned in an off-site device under the exemption provided by § 266.108, but must be included in the quantity determination for the exemption.

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under this section must provide a one-time signed, written notice to EPA indicating the following:

(1) The combustion unit is operating as a small quantity burner of hazardous waste;

(2) The owner and operator are in compliance with the requirements of this section;

(3) The maximum quantity of hazardous waste that the facility may burn per month as provided by § 266.108(a)(1).

(e) Recordkeeping requirements. The owner or operator must maintain at
§ 266.109  Low risk waste exemption.

(a) Waiver of DRE standard. The DRE standard of §266.104(a) does not apply if the boiler or industrial furnace is operated in conformance with (a)(1) of this section and the owner or operator demonstrates by procedures prescribed in (a)(2) of this section that the burning will not result in unacceptable adverse health effects.

(i) The device shall be operated as follows:

(ii) The device shall be operated as follows:

(i) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(ii) Primary fuels and hazardous waste fuels shall have a minimum ad-fired heating value of 8,000 Btu/lb;

(iii) The hazardous waste is fired directly into the primary fuel flame zone of the combustion chamber; and

(iv) The device operates in conformance with the carbon monoxide controls provided by §266.104(b)(1). Devices subject to the exemption provided by this section are not eligible for the alternative carbon monoxide controls provided by §266.104(c).

(2) Procedures to demonstrate that the hazardous waste burning will not pose unacceptable adverse public health effects are as follows:

(i) Identify and quantify those nonmetal compounds listed in appendix VIII, part 261 of this chapter that could reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained;

(ii) Calculate reasonable, worst case emission rates for each constituent identified in paragraph (a)(2)(i) of this section by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that 0.1 percent of the mass weight of each constituent fed to the device is emitted;

(iii) For each constituent identified in paragraph (a)(2)(i) of this section, use emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

(A) Dispersion modeling shall be conducted using methods specified in §266.106(h).

(B) Owners and operators of facilities with more than one on-site stack from a boiler or industrial furnace that is exempt under this section must conduct dispersion modeling of emissions from all stacks exempt under this section to predict ambient levels prescribed by this paragraph.

(iv) Ground level concentrations of constituents predicted under paragraph (a)(2)(iii) of this section must not exceed the following levels:

(A) For the noncarcinogenic compounds listed in appendix IV of this part, the levels established in appendix IV;

(B) For the carcinogenic compounds listed in appendix V of this part, the sum for all constituents of the ratios of the actual ground level concentration to the level established in appendix V cannot exceed 1.0; and

(C) For constituents not listed in appendix IV or V, 0.1 micrograms per cubic meter.

(b) Waiver of particulate matter standard. The particulate matter standard of §266.105 does not apply if:

(1) The DRE standard is waived under paragraph (a) of this section; and

(2) Procedures to demonstrate that the hazardous waste burning will not pose unacceptable adverse health effects are as follows:

(i) Identify and quantify those nonmetal compounds listed in appendix VIII, part 261 of this chapter that could reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained;

(ii) Calculate reasonable, worst case emission rates for each constituent identified in paragraph (a)(2)(i) of this section by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that 0.1 percent of the mass weight of each constituent fed to the device is emitted;

(iii) For each constituent identified in paragraph (a)(2)(i) of this section, use emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

(A) Dispersion modeling shall be conducted using methods specified in §266.106(h).

(B) Owners and operators of facilities with more than one on-site stack from a boiler or industrial furnace that is exempt under this section must conduct dispersion modeling of emissions from all stacks exempt under this section to predict ambient levels prescribed by this paragraph.

(iv) Ground level concentrations of constituents predicted under paragraph (a)(2)(iii) of this section must not exceed the following levels:

(A) For the noncarcinogenic compounds listed in appendix IV of this part, the levels established in appendix IV;

(B) For the carcinogenic compounds listed in appendix V of this part, the sum for all constituents of the ratios of the actual ground level concentration to the level established in appendix V cannot exceed 1.0; and

(C) For constituents not listed in appendix IV or V, 0.1 micrograms per cubic meter.
(2) The owner or operator complies with the Tier I or adjusted Tier I metal feed rate screening limits provided by §266.106 (b) or (e).


§ 266.110 Waiver of DRE trial burn for boilers.

Boilers that operate under the special requirements of this section, and that do not burn hazardous waste containing (or derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027, are considered to be in conformance with the DRE standard of §266.104(a), and a trial burn to demonstrate DRE is waived. When burning hazardous waste:

(a) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(b) Boiler load shall not be less than 40 percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input;

(c) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a burner where hazardous waste is fired must have a heating value of at least 8,000 Btu/lb, as-fired;

(d) The device shall operate in conformance with the carbon monoxide standard provided by §266.104(b)(1). Boilers subject to the waiver of the DRE trial burn provided by this section are not eligible for the alternative carbon monoxide standard provided by §266.104(c);

(e) The boiler must be a watertube type boiler that does not feed fuel using a stoker or stoker type mechanism; and

(f) The hazardous waste shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

1. Viscosity. The viscosity of the hazardous waste fuel as-fired shall not exceed 300 SSU;

2. Particle size. When a high pressure air or steam atomizer, low pressure atomizer, or mechanical atomizer is used, 70% of the hazardous waste fuel must pass through a 200 mesh (74 micron) screen, and when a rotary cup atomizer is used, 70% of the hazardous waste must pass through a 100 mesh (150 micron) screen;

3. Mechanical atomization systems. Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

4. Rotary cup atomization systems. Fuel flow rate through a rotary cup atomization system must be maintained within the design range taking into account the viscosity and volatility of the fuel.


§ 266.111 Standards for direct transfer.

(a) Applicability. The regulations in this section apply to owners and operators of boilers and industrial furnaces subject to §§266.102 or 266.103 if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(b) Definitions. (1) When used in this section, the following terms have the meanings given below:

Direct transfer equipment means any device (including but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (i.e., transport vehicle) and a boiler or industrial furnace.

Container means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves.
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(e.g., tank trucks, tanker-trailers, and rail tank cars), and containers placed on or in a transport vehicle.

(2) This section references several requirements provided in subparts I and J of parts 264 and 265. For purposes of this section, the term “tank systems” in those referenced requirements means direct transfer equipment as defined in paragraph (b)(1) of this section.

(c) General operating requirements. (1) No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace.

(2) Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak.

(3) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not:

(i) Generate extreme heat or pressure, fire, explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the container or direct transfer equipment containing the waste;

(v) Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by §§266.104 through 266.107; or

(vi) Threaten human health or the environment.

(4) Hazardous waste shall not be placed in direct transfer equipment, if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

(5) The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum:

(i) Spill prevention controls (e.g., check valves, dry discount couplings); and

(ii) Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment.

(d) Areas where direct transfer vehicles (containers) are located. Applying the definition of container under this section, owners and operators must comply with the following requirements:

(1) The containment requirements of §264.175 of this chapter;

(2) The use and management requirements of subpart I, part 265 of this chapter, except for §§265.170 and 265.174, and except that in lieu of the special requirements of §265.176 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2–1 through 2–6 of the National Fire Protection Association’s (NFPA) “Flammable and Combustible Liquids Code,” (1977 or 1981), (incorporated by reference, see §260.11). The owner or operator must obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes; and

(3) The closure requirements of §264.178 of this chapter.

(e) Direct transfer equipment. Direct transfer equipment must meet the following requirements:

(1) Secondary containment. Owners and operators shall comply with the secondary containment requirements of §265.193 of this chapter, except for paragraphs 265.193 (a), (d), (e), and (i) as follows:

(i) For all new direct transfer equipment, prior to their being put into service; and

(ii) For existing direct transfer equipment within 2 years after August 21, 1991.

(2) Requirements prior to meeting secondary containment requirements. (i) For existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use. The owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified, registered professional engineer in accordance
with §270.11(d) of this chapter that attests to the equipment’s integrity by August 21, 1992.

(i) This assessment shall determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(A) Design standard(s), if available, according to which the direct transfer equipment was constructed;

(B) Hazardous characteristics of the waste(s) that have been or will be handled;

(C) Existing corrosion protection measures;

(D) Documented age of the equipment, if available, (otherwise, an estimate of the age); and

(E) Results of a leak test or other integrity examination such that the effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for.

(ii) If, as a result of the assessment specified above, the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of §§265.196 (a) and (b) of this chapter.

(3) Inspections and recordkeeping. (i) The owner or operator must inspect at least once each operating hour when hazardous waste is being transferred from the transport vehicle (container) to the boiler or industrial furnace:

(A) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

(B) The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste (e.g., wet spots, dead vegetation); and

(C) Data gathered from monitoring equipment and leak-detection equipment, (e.g., pressure and temperature gauges) to ensure that the direct transfer equipment is being operated according to its design.

(ii) The owner or operator must inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided by §265.195(b) of this chapter:

(iii) Records of inspections made under this paragraph shall be maintained in the operating record at the facility, and available for inspection for at least 3 years from the date of the inspection.

(4) Design and installation of new ancillary equipment. Owners and operators must comply with the requirements of §265.192 of this chapter.

(5) Response to leaks or spills. Owners and operators must comply with the requirements of §265.196 of this chapter.

(6) Closure. Owners and operators must comply with the requirements of §265.197 of this chapter, except for §265.197 (c)(2) through (c)(4).

§266.112 Regulation of residues.

A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under §261.4(b) (4), (7), or (8) unless the device and the owner or operator meet the following requirements:

(a) The device meets the following criteria:

(1) Boilers. Boilers must burn at least 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

(2) Ore or mineral furnaces. Industrial furnaces subject to §261.4(b)(7) must process at least 50% by weight normal, nonhazardous raw materials;

(3) Cement kilns. Cement kilns must process at least 50% by weight normal cement-production raw materials;

(b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:

(1) Comparison of waste-derived residue with normal residue. The waste-derived residue must not contain appendix VIII, part 261 constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure.
Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in appendix VIII of this part that may be generated as products of incomplete combustion. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses must be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of appendix IX of this part.

(i) Normal residue. Concentrations of toxic constituents of concern in normal residue shall be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed 24 hours. The upper tolerance limit (at 95% confidence with a 95% proportion of the sample distribution) of the concentration in the normal residue shall be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations must be revised or statistically-derived concentrations of toxic constituents in normal residue must be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in “Statistical Methodology for Bevill Residue Determinations” in appendix IX of this part.

(ii) Waste-derived residue. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under paragraph (b)(1)(i) of this section. If so, hazardous waste burning has significantly affected the residue and the residue shall not be excluded from the definition of a hazardous waste. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; or

(2) Comparison of waste-derived residue concentrations with health-based limits—

(i) Nonmetal constituents. The concentration of each nonmetal toxic constituent of concern (specified in paragraph (b)(1) of this section) in the waste-derived residue must not exceed the health-based level specified in appendix VII of this part, or the level of detection, whichever is higher. If a health-based limit for a constituent of concern is not listed in appendix VII of this part, then a limit of 0.002 micrograms per kilogram or the level of detection (which must be determined by using appropriate analytical procedures), whichever is higher, must be used. The levels specified in appendix VII of this part (and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of appendix VII of this chapter) are administratively stayed under the condition, for those constituents specified in paragraph (b)(1) of this section, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in §268.43 of this chapter for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best good-faith efforts as defined by applicable Agency guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order
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of magnitude above the level provided by §268.43 of this chapter for F039 nonwastewaters. In complying with the §268.43 of this chapter F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses must be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans.

NOTE TO THIS PARAGRAPH (b)(2)(i): The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in §268.43 of this chapter for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published in the FEDERAL REGISTER and the Code of Federal Regulations.

(ii) Metal constituents. The concentration of metals in an extract obtained using the Toxicity Characteristic Leaching Procedure of §261.24 of this chapter must not exceed the levels specified in appendix VII of this part; and

(iii) Sampling and analysis. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; and

(c) Records sufficient to document compliance with the provisions of this section shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following shall be recorded.

(1) Levels of constituents in appendix VIII, part 261, that are present in waste-derived residues;

(2) If the waste-derived residue is compared with normal residue under paragraph (b)(1) of this section:

(i) The levels of constituents in appendix VIII, part 261, that are present in normal residues; and

(ii) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.


Subparts I–L [Reserved]

Subpart M—Military Munitions

SOURCE: 62 FR 6654, Feb. 12, 1997, unless otherwise noted.

§ 266.200 Applicability.

(a) The regulations in this subpart identify when military munitions become a solid waste, and, if these wastes are also hazardous under this subpart or 40 CFR part 261, the management standards that apply to these wastes.

(b) Unless otherwise specified in this subpart, all applicable requirements in 40 CFR parts 260 through 270 apply to waste military munitions.

§ 266.201 Definitions.

In addition to the definitions in 40 CFR 260.10, the following definitions apply to this subpart:

Active range means a military range that is currently in service and is being regularly used for range activities.

Chemical agents and munitions are defined as in 50 U.S.C. section 1521(j)(1).

Director is as defined in 40 CFR 260.10.

Explosives or munitions emergency response specialist is as defined in 40 CFR 260.10.

Explosives or munitions emergency is as defined in 40 CFR 260.10.

Inactive range means a military range that is not currently being used, but
§ 266.202 Definition of solid waste.

(a) A military munition is not a solid waste when:

(1) Used for its intended purpose, including:
   (i) Use in training military personnel or explosives and munitions emergency response specialists (including training in proper destruction of unused propellant or other munitions); or
   (ii) Use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems; or
   (iii) Recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges. However, “use for intended purpose” does not include the on-range disposal or burial of unexploded ordnance and contaminants when the burial is not a result of product use.

(2) An unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless such activities involve use constituting disposal as defined in 40 CFR 261.2(c)(1), or burning for energy recovery as defined in 40 CFR 261.2(c)(2).

(b) An unused military munition is a solid waste when any of the following occurs:

(1) The munition is abandoned by being disposed of, burned, detonated (except during intended use as specified in paragraph (a) of this section), incinerated, or treated prior to disposal; or

(2) The munition is removed from storage in a military magazine or other storage area for the purpose of being disposed of, burned, or incinerated, or treated prior to disposal, or

(3) The munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition, and cannot reasonably be recycled or used for other purposes; or

(4) The munition has been declared a solid waste by an authorized military official.

(c) A used or fired military munition is a solid waste:

(1) When transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or

(2) If recovered, collected, and then disposed of by burial, or landfilling either on or off a range.

(d) For purposes of RCRA section 1004(27), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of
the range must maintain a record of the event for as long as any threat remains. The record must include the type of munition and its location (to the extent the location is known).

§ 266.203 Standards applicable to the transportation of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in transportation. (1) Waste military munitions that are being transported and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 40 CFR part 261, are listed or identified as a hazardous waste (and thus are subject to regulation under 40 CFR parts 260 through 270), unless all the following conditions are met:

(i) The waste military munitions are not chemical agents or chemical munitions;

(ii) The waste military munitions must be transported in accordance with the Department of Defense shipping controls applicable to the transportation of military munitions;

(iii) The waste military munitions must be transported from a military owned or operated installation to a military owned or operated treatment, storage, or disposal facility; and

(iv) The transporter of the waste must provide oral notice to the Director within 24 hours from the time the transporter becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of paragraph (a)(1) of this section that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within 5 days from the time the transporter becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of paragraph (a)(1) of this section.

(2) If any waste military munitions shipped under paragraph (a)(1) of this section are not received by the receiving facility within 45 days of the day the waste was shipped, the owner or operator of the receiving facility must report this non-receipt to the Director within 5 days.

(b) Reinstatement of exemption. If any waste military munition loses its exemption under paragraph (a)(1) of this section, an application may be filed with the Director for reinstatement of the exemption from hazardous waste transportation regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of paragraph (a)(1) of this section. If the Director finds that reinstatement of the exemption is appropriate based on factors such as the transporter’s provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Director may reinstate the exemption under paragraph (a)(1) of this section. If the Director does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Director may terminate a conditional exemption reinstated by default in the preceding sentence if the Director finds that reinstatement is inappropriate based on factors such as the transporter’s failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the exemption under paragraph (a)(1) of this section, the Director may specify additional conditions as are necessary to ensure and document proper transportation to protect human health and the environment.

(c) Amendments to DOD shipping controls. The Department of Defense shipping controls applicable to the transportation of military munitions referenced in paragraph (a)(1)(ii) of this section are Government Bill of Lading (GBL)
§ 266.204 Standards applicable to emergency responses.

Explosives and munitions emergencies involving military munitions or explosives are subject to 40 CFR 262.10(i), 263.10(e), 264.1(g)(8), 265.1(c)(11), and 270.1(c)(3), or alternatively to 40 CFR 270.61.

§ 266.205 Standards applicable to the storage of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in storage. (1) Waste military munitions in storage that exhibit a hazardous waste characteristic or are listed as hazardous waste under 40 CFR Part 261, are listed or identified as a hazardous waste (and thus are subject to regulation under 40 CFR Parts 260 through 279), unless all the following conditions are met:
   (i) The waste military munitions are not chemical agents or chemical munitions.
   (ii) The waste military munitions must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB).
   (iii) The waste military munitions must be stored in accordance with the DDESB storage standards applicable to waste military munitions.
   (iv) Within 90 days of August 12, 1997 or within 90 days of when a storage unit is first used to store waste military munitions, whichever is later, the owner or operator must notify the Director of the location of any waste storage unit used to store waste military munitions for which the conditional exemption in paragraph (a)(1) is claimed.
   (v) The owner or operator must provide oral notice to the Director within 24 hours from the time the owner or operator becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of paragraph (a)(1) that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within 5 days from the time the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of paragraph (a)(1) of this section.
   (vi) The owner or operator must inventory the waste military munitions at least annually, must inspect the waste military munitions at least quarterly for compliance with the conditions of paragraph (a)(1) of this section, and must maintain records of the findings of these inventories and inspections for at least three years.
   (vii) Access to the stored waste military munitions must be limited to appropriately trained and authorized personnel.
   (2) The conditional exemption in paragraph (a)(1) of this section applies only so long as all of the conditions in paragraph (a)(1) of this section are met.
   (b) Notice of termination of waste storage. The owner or operator must notify the Director when a storage unit identified in paragraph (a)(1)(iv) of this section will no longer be used to store waste military munitions.
   (c) Reinstatement of conditional exemption. If any waste military munition loses its conditional exemption under paragraph (a)(1) of this section, an application may be filed with the Director for reinstatement of the conditional exemption from hazardous waste storage regulation with respect
Environmental Protection Agency

§ 266.210 What definitions apply to this subpart?

This subpart uses the following special definitions:

Agreement State means a state that has entered into an agreement with the NRC under subsection 274b of the Atomic Energy Act of 1954, as amended (68 Stat. 919), to assume responsibility for regulating within its borders byproduct, source, or special nuclear material in quantities not sufficient to form a critical mass.

Certified delivery means certified mail with return receipt requested, or equivalent courier service, or other means, that provides the sender with a receipt confirming delivery.

Director refers to the definition in 40 CFR 270.2.

Eligible Naturally Occurring and/or Accelerator-produced Radioactive Material (NARM) is NARM that is eligible for the Transportation and Disposal Conditional Exemption. It is a NARM waste that contains RCRA hazardous waste, meets the waste acceptance criteria of,
§ 266.220 What does a storage and treatment conditional exemption do? The storage and treatment conditional exemption exempts your low-level mixed waste from the regulatory definition of hazardous waste in 40 CFR 261.3 if your waste meets the eligibility criteria in §266.225 and you meet the conditions in §266.230.

§ 266.225 What wastes are eligible for the storage and treatment conditional exemption? Low-level mixed waste (LLMW), defined in §266.210, is eligible for this conditional exemption if it is generated and managed by you under a single NRC or NRC Agreement State license. (Mixed waste generated at a facility with a different license number and shipped to your facility for storage or treatment requires a permit and is ineligible for this exemption. In addition, NARM waste is ineligible for this exemption.)

§ 266.230 What conditions must you meet for your LLMW to qualify for and maintain a storage and treatment exemption?

(a) For your LLMW to qualify for the exemption you must notify us in writing by certified delivery that you are claiming a conditional exemption for the LLMW stored on your facility. The dated notification must include your name, address, RCRA identification number, NRC or NRC Agreement State license number, the waste code(s) and storage unit(s) for which you are seeking an exemption, and a statement that you meet the conditions of this subpart. Your notification must be

(2) Are produced by an accelerator.

NARM is regulated by the States under State law, or by DOE (as authorized by the AEA) under DOE orders.

NRC means the U. S. Nuclear Regulatory Commission.

We or us within this subpart, means the Director as defined in 40 CFR 270.2.

You means a generator, treatier, or other handler of low-level mixed waste or eligible NARM.

STORAGE AND TREATMENT CONDITIONAL EXEMPTION AND ELIGIBILITY

§ 266.220 What does a storage and treatment conditional exemption do? The storage and treatment conditional exemption exempts your low-level mixed waste from the regulatory definition of hazardous waste in 40 CFR 261.3 if your waste meets the eligibility criteria in §266.225 and you meet the conditions in §266.230.

§ 266.225 What wastes are eligible for the storage and treatment conditional exemption? Low-level mixed waste (LLMW), defined in §266.210, is eligible for this conditional exemption if it is generated and managed by you under a single NRC or NRC Agreement State license. (Mixed waste generated at a facility with a different license number and shipped to your facility for storage or treatment requires a permit and is ineligible for this exemption. In addition, NARM waste is ineligible for this exemption.)

§ 266.230 What conditions must you meet for your LLMW to qualify for and maintain a storage and treatment exemption?

(a) For your LLMW to qualify for the exemption you must notify us in writing by certified delivery that you are claiming a conditional exemption for the LLMW stored on your facility. The dated notification must include your name, address, RCRA identification number, NRC or NRC Agreement State license number, the waste code(s) and storage unit(s) for which you are seeking an exemption, and a statement that you meet the conditions of this subpart. Your notification must be
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signed by your authorized representative who certifies that the information in the notification is true, accurate, and complete. You must notify us of your claim either within 90 days of the effective date of this rule in your State, or within 90 days of when a storage unit is first used to store conditionally exempt LLMW.

(b) To qualify for and maintain an exemption for your LLMW you must:

(1) Store your LLMW waste in tanks or containers in compliance with the requirements of your license that apply to the proper storage of low-level radioactive waste (not including those license requirements that relate solely to recordkeeping);

(2) Store your LLMW in tanks or containers in compliance with chemical compatibility requirements of a tank or container in 40 CFR 264.177, or 264.199 or 40 CFR 265.177, or 265.199;

(3) Certify that facility personnel who manage stored conditionally exempt LLMW are trained in a manner that ensures that the conditionally exempt waste is safely managed and includes training in chemical waste management and hazardous materials incident response that meets the personnel training standards found in 40 CFR 265.16(a)(3);

(4) Conduct an inventory of your stored conditionally exempt LLMW at least annually and inspect it at least quarterly for compliance with subpart N of this part; and

(5) Maintain an accurate emergency plan and provide it to all local authorities who may have to respond to a fire, explosion, or release of hazardous waste or hazardous constituents. Your plan must describe emergency response arrangements with local authorities; describe evacuation plans; list the names, addresses, and telephone numbers of all facility personnel qualified to work with local authorities as emergency coordinators; and list emergency equipment.

TREATMENT

§ 266.235 What waste treatment does the storage and treatment conditional exemption allow?

You may treat your low-level mixed waste at your facility within a tank or container in accordance with the terms of your NRC or NRC Agreement State license. Treatment that cannot be done in a tank or container without a RCRA permit (such as incineration) is not allowed under this exemption.

LOSS OF CONDITIONAL EXEMPTION

§ 266.240 How could you lose the conditional exemption for your LLMW and what action must you take?

(a) Your LLMW will automatically lose the storage and treatment conditional exemption if you fail to meet any of the conditions specified in § 266.230. When your LLMW loses the exemption, you must immediately manage that waste which failed the condition as RCRA hazardous waste, and the storage unit storing the LLMW immediately becomes subject to RCRA hazardous waste container and/or tank storage requirements.

(1) If you fail to meet any of the conditions specified in § 266.230 you must report to us and the NRC, or the oversight agency in the NRC Agreement State, in writing by certified delivery within 30 days of learning of the failure. Your report must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

(i) The specific condition(s) you failed to meet;

(ii) A description of the LLMW (including the waste name, hazardous waste codes and quantity) and storage location at the facility; and

(iii) The date(s) on which you failed to meet the condition(s).

(2) If the failure to meet any of the conditions may endanger human health or the environment, you must also immediately notify us orally within 24 hours and follow up with a written notification within five days. Failures that may endanger human health or the environment include, but are not limited to, discharge of a CERCLA reportable quantity or other leaking or exploding tanks or containers, or detection of radionuclides above background or hazardous constituents in the leachate collection system of a storage area. If the failure may endanger human health or the environment, you must follow the provisions of your emergency plan.
§ 266.245  We may terminate your conditional exemption for your LLMW, or require you to meet additional conditions to claim a conditional exemption, for serious or repeated noncompliance with any requirement(s) of subpart N of this part.

§ 266.245  If you lose the storage and treatment conditional exemption for your LLMW, can the exemption be reclaimed?

(a) You may reclaim the storage and treatment exemption for your LLMW if:
   (1) You again meet the conditions specified in § 266.230; and
   (2) You send us a notice by certified delivery that you are reclaiming the exemption for your LLMW. Your notice must be signed by your authorized representative certifying that the information contained in your notice is true, complete, and accurate. In your notice you must do the following:
      (i) Explain the circumstances of each failure.
      (ii) Certify that you have corrected each failure that caused you to lose the exemption for your LLMW and that you again meet all the conditions as of the date you specify.
      (iii) Describe plans that you have implemented, listing specific steps you have taken, to ensure the conditions will be met in the future.
      (iv) Include any other information you want us to consider when we review your notice reclaiming the exemption.

(b) We may terminate a reclaimed conditional exemption if we find that your claim is inappropriate based on factors including, but not limited to, the following: you have failed to correct the problem; you explained the circumstances of the failure unsatisfactorily; or you failed to implement a plan with steps to prevent another failure to meet the conditions of § 266.230. In reviewing a reclaimed conditional exemption under this section, we may add conditions to the exemption to ensure that waste management during storage and treatment of the LLMW will protect human health and the environment.

§ 266.250  What records must you keep at your facility and for how long?

(a) In addition to those records required by your NRC or NRC Agreement State license, you must keep records as follows:
   (1) Your initial notification records, return receipts, reports to us of failure(s) to meet the exemption conditions, and all records supporting any reclaim of an exemption.
   (2) Records of your LLMW annual inventories, and quarterly inspections;
   (3) Your certification that facility personnel who manage stored mixed waste are trained in safe management of LLMW including training in chemical waste management and hazardous materials incidents response; and
   (4) Your emergency plan as specified in § 266.230(b).

(b) You must maintain records concerning notification, personnel trained, and your emergency plan for as long as you claim this exemption and for three years thereafter, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer. You must maintain records concerning your annual inventory and quarterly inspections for three years after the waste is sent for disposal, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer.

REENTRY INTO RCRA

§ 266.255  When is your LLMW no longer eligible for the storage and treatment conditional exemption?

(a) When your LLMW has met the requirements of your NRC or NRC Agreement State license for decay-in-storage and can be disposed of as non-radioactive waste, then the conditional exemption for storage no longer applies. On that date your waste is subject to hazardous waste regulation under the relevant sections of 40 CFR parts 260 through 271, and the time period for accumulation of a hazardous waste as specified in 40 CFR 262.34 begins.

(b) When your conditionally exempt LLMW, which has been generated and stored under a single NRC or NRC
Agreement State license number, is removed from storage, it is no longer eligible for the storage and treatment exemption. However, your waste may be eligible for the transportation and disposal conditional exemption at §266.305.

STORAGE UNIT CLOSURE

§ 266.260 Do closure requirements apply to units that stored LLMW prior to the effective date of Subpart N?

Interim status and permitted storage units that have been used to store only LLMW prior to the effective date of subpart N of this part and, after that date, store only LLMW which becomes exempt under this subpart N, are not subject to the closure requirements of 40 CFR parts 264 and 265. Storage units (or portions of units) that have been used to store both LLMW and non-mixed hazardous waste prior to the effective date of subpart N or are used to store both after that date remain subject to closure requirements with respect to the non-mixed hazardous waste.

TRANSPORTATION AND DISPOSAL CONDITIONAL EXEMPTION

§ 266.305 What does the transportation and disposal conditional exemption do?

This conditional exemption exempts your waste from the regulatory definition of hazardous waste in 40 CFR 261.3 if your waste meets the eligibility criteria under §266.310, and you meet the conditions in §266.315.

ELIGIBILITY

§ 266.310 What wastes are eligible for the transportation and disposal conditional exemption?

Eligible waste must be:
(a) A low-level mixed waste (LLMW), as defined in §266.210, that meets the waste acceptance criteria of a LLRWDF; and/or
(b) An eligible NARM waste, defined in §266.210.

CONDITIONS

§ 266.315 What are the conditions you must meet for your waste to qualify for and maintain the transportation and disposal conditional exemption?

You must meet the following conditions for your eligible waste to qualify for and maintain the exemption:
(a) The eligible waste must meet or be treated to meet LDR treatment standards as described in §266.320.
(b) If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must manifest and transport your waste according to NRC regulations as described in §266.325.
(c) The exempted waste must be in containers when it is disposed of in the LLRWDF as described in §266.340.
(d) The exempted waste must be disposed of at a designated LLRWDF as described in §266.335.

§ 266.320 What treatment standards must your eligible waste meet?

Your LLMW or eligible NARM waste must meet Land Disposal Restriction (LDR) treatment standards specified in 40 CFR part 268, subpart D.

§ 266.325 Are you subject to the manifest and transportation condition in §266.315(b)?

If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must meet the manifest requirements under 10 CFR 20.2006 (or NRC Agreement State equivalent regulations), and the transportation requirements under 10 CFR 1.5 (or NRC Agreement State equivalent regulations) to ship the exempted waste.

§ 266.330 When does the transportation and disposal exemption take effect?

The exemption becomes effective once all the following have occurred:
(a) Your eligible waste meets the applicable LDR treatment standards.
(b) You have received return receipts that you have notified us and the LLRWDF as described in §266.345.
§ 266.335 Where must your exempted waste be disposed of?
Your exempted waste must be disposed of in a LLRWDF that is regulated and licensed by NRC under 10 CFR part 61 or by an NRC Agreement State under equivalent State regulations, including State NARM licensing regulations for eligible NARM.

§ 266.340 What type of container must be used for disposal of exempted waste?
Your exempted waste must be placed in containers before it is disposed. The container must be:
(a) A carbon steel drum; or
(b) An alternative container with equivalent containment performance in the disposal environment as a carbon steel drum; or
(c) A high integrity container as defined by NRC.

NOTIFICATION
§ 266.345 Whom must you notify?
(a) You must provide a one time notice to us stating that you are claiming the transportation and disposal conditional exemption prior to the initial shipment of an exempted waste from your facility to a LLRWDF. Your dated written notice must include your facility name, address, phone number, and RCRA ID number, and be sent by certified delivery.
(b) You must notify the LLRWDF receiving your exempted waste by certified delivery before shipment of each exempted waste. You can only ship the exempted waste after you have received the return receipt of your notice to the LLRWDF. This notification must include the following:
(1) A statement that you have claimed the exemption for the waste.
(2) A statement that the eligible waste meets applicable LDR treatment standards.
(3) Your facility’s name, address, and RCRA ID number.
(4) The RCRA hazardous waste codes prior to the exemption of the waste streams.
(5) A statement that the exempted waste must be placed in a container according to §266.340 prior to disposal in order for the waste to remain exempt under the transportation and disposal conditional exemption of subpart N of this part.
(6) The manifest number of the shipment that will contain the exempted waste.
(7) A certification that all the information provided is true, complete, and accurate. The statement must be signed by your authorized representative.

RECORDKEEPING
§ 266.350 What records must you keep at your facility and for how long?
In addition to those records required by your NRC or NRC Agreement State license, you must keep records as follows:
(a) You must follow the applicable existing recordkeeping requirements under 40 CFR 264.73, 40 CFR 265.73, and 40 CFR 268.7 of this chapter to demonstrate that your waste has met LDR treatment standards prior to your claiming the exemption.
(b) You must keep a copy of all notifications and return receipts required under §§266.355, and 266.360 for three years after the exempted waste is sent for disposal.
(c) You must keep a copy of all notifications and return receipts required under §266.345(a) for three years after the last exempted waste is sent for disposal.
(d) You must keep a copy of the notification and return receipt required under §266.345(b) for three years after the exempted waste is sent for disposal.
(e) If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must also keep all other documents related to tracking the exempted waste as required under 10 CFR 20.2006 or NRC Agreement State equivalent regulations, including applicable NARM requirements, in addition to the records specified in §266.350(a) through (d).

Section 266.355 How could you lose the transportation and disposal conditional exemption for your waste and what actions must you take?

(a) Any waste will automatically lose the transportation and disposal exemption if you fail to manage it in accordance with all of the conditions specified in §266.315.

(1) When you fail to meet any of the conditions specified in §266.315 for any of your wastes, you must report to us, in writing by certified delivery, within 30 days of learning of the failure. Your report must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

(i) The specific condition(s) that you failed to meet for the waste;
(ii) A description of the waste (including the waste name, hazardous waste codes and quantity) that lost the exemption; and
(iii) The date(s) on which you failed to meet the condition(s) for the waste.

(2) If the failure to meet any of the conditions may endanger human health or the environment, you must also immediately notify us orally within 24 hours and follow up with a written notification within 5 days.

(b) If the failure to meet any of the conditions may endanger human health or the environment, you must also immediately notify us orally within 24 hours and follow up with a written notification within 5 days.

(b) We may terminate your ability to claim a conditional exemption for your waste, or require you to meet additional conditions to claim a conditional exemption, for serious or repeatedly noncompliance with any requirement(s) of subpart N of this part.

Section 266.360 If you lose the transportation and disposal conditional exemption for a waste, can the exemption be reclaimed?

(a) You may reclaim the transportation and disposal exemption for a waste after you have received a return receipt confirming that we have received your notification of the loss of the exemption specified in §266.355(a) and if:

(1) You again meet the conditions specified in §266.315 for the waste; and
(2) You send a notice, by certified delivery, to us that you are reclaiming the exemption for the waste. Your notice must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. The notice must:

(i) Explain the circumstances of each failure.
(ii) Certify that each failure that caused you to lose the exemption for the waste has been corrected and that you again meet all conditions for the waste as of the date you specify.
(iii) Describe plans you have implemented, listing the specific steps that you have taken, to ensure that conditions will be met in the future.
(iv) Include any other information you want us to consider when we review your notice reclaiming the exemption.

(b) We may terminate a reclaimed conditional exemption if we find that your claim is inappropriate based on factors including, but not limited to: you have failed to correct the problem; you explained the circumstances of the failure unsatisfactorily; or you failed to implement a plan with steps to prevent another failure to meet the conditions of §266.315. In reviewing a reclaimed conditional exemption under this section, we may add conditions to the exemption to ensure that transportation and disposal activities will protect human health and the environment.
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APPENDIX I TO PART 266—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING
LIMITS FOR METALS
TABLE I-A—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR
NONCARCINOGENIC METALS FOR FACILITIES IN NONCOMPLEX TERRAIN
[Values for urban areas]
Terrain adjusted eff. stack ht. (m)

Antimony
(g/hr)

4 ........................................................................
6 ........................................................................
8 ........................................................................
10 ......................................................................
12 ......................................................................
14 ......................................................................
16 ......................................................................
18 ......................................................................
20 ......................................................................
22 ......................................................................
24 ......................................................................
26 ......................................................................
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70 ......................................................................
75 ......................................................................
80 ......................................................................
85 ......................................................................
90 ......................................................................
95 ......................................................................
100 ....................................................................
105 ....................................................................
110 ....................................................................
115 ....................................................................
120 ....................................................................

Barium (g/
hr)

Lead (g/hr)

1.0E+04
1.1E+04
1.3E+04
1.4E+04
1.7E+04
1.8E+04
2.1E+04
2.4E+04
2.7E+04
3.0E+04
3.4E+04
3.9E+04
4.3E+04
5.0E+04
6.6E+04
7.8E+04
1.0E+05
1.3E+05
1.7E+05
2.0E+05
2.5E+05
2.8E+05
3.2E+05
3.6E+05
4.0E+05
4.6E+05
5.4E+05
6.0E+05
6.8E+05
7.8E+05
8.6E+05
1.0E+06

1.8E+01
2.0E+01
2.3E+01
2.6E+01
3.0E+01
3.4E+01
3.6E+01
4.3E+01
4.6E+01
5.4E+01
6.0E+01
6.8E+01
7.8E+01
9.0E+01
1.1E+02
1.4E+02
1.8E+02
2.3E+02
3.0E+02
3.6E+02
4.3E+02
5.0E+02
5.8E+02
6.4E+02
7.6E+02
8.2E+02
9.6E+02
1.1E+03
1.2E+03
1.4E+03
1.6E+03
1.8E+03

6.0E+01
6.8E+01
7.6E+01
8.6E+01
9.6E+01
1.1E+02
1.3E+02
1.4E+02
1.6E+02
1.8E+02
2.0E+02
2.3E+02
2.6E+02
3.0E+02
4.0E+02
4.6E+02
6.0E+02
7.8E+02
9.6E+02
1.2E+03
1.5E+03
1.7E+03
1.9E+03
2.2E+03
2.5E+03
2.8E+03
3.2E+03
3.6E+03
4.0E+03
4.6E+03
5.4E+03
6.0E+03

Mercury
(g/hr)
6.0E+01
6.8E+01
7.6E+01
8.6E+01
9.6E+01
1.1E+02
1.3E+02
1.4E+02
1.6E+02
1.8E+02
2.0E+02
2.3E+02
2.6E+02
3.0E+02
4.0E+02
4.6E+02
6.0E+02
7.8E+02
9.6E+02
1.2E+03
1.5E+03
1.7E+03
1.9E+03
2.2E+03
2.5E+03
2.8E+03
3.2E+03
3.6E+03
4.0E+03
4.6E+03
5.4E+03
6.0E+03

Silver (g/
hr)
6.0E+02
6.8E+02
7.6E+02
8.6E+02
9.6E+02
1.1E+03
1.3E+03
1.4E+03
1.6E+03
1.8E+03
2.0E+03
2.3E+03
2.6E+03
3.0E+03
4.0E+03
4.6E+03
6.0E+03
7.8E+03
9.6E+03
1.2E+04
1.5E+04
1.7E+04
1.9E+04
2.2E+04
2.5E+04
2.8E+04
3.2E+04
3.6E+04
4.0E+04
4.6E+04
5.4E+04
6.0E+04

Thallium
(g/hr)
6.0E+01
6.8E+01
7.6E+01
8.6E+01
9.6E+01
1.1E+02
1.3E+02
1.4E+02
1.6E+02
1.8E+02
2.0E+02
2.3E+02
2.6E+02
3.0E+02
4.0E+02
4.6E+02
6.0E+02
7.8E+02
9.6E+02
1.2E+03
1.5E+03
1.7E+03
1.9E+03
2.2E+03
2.5E+03
2.8E+03
3.2E+03
3.6E+03
4.0E+03
4.6E+03
5.4E+03
6.0E+03

TABLE I-B—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR
NONCARCINOGENIC METALS FOR FACILITIES IN NONCOMPLEX TERRAIN
[Values for rural areas]

pmangrum on DSK3VPTVN1PROD with CFR

Terrain adjusted eff. stack ht. (m)

Antimony
(g/hr)

4 ........................................................................
6 ........................................................................
8 ........................................................................
10 ......................................................................
12 ......................................................................
14 ......................................................................
16 ......................................................................
18 ......................................................................
20 ......................................................................
22 ......................................................................
24 ......................................................................
26 ......................................................................
28 ......................................................................
30 ......................................................................
35 ......................................................................
40 ......................................................................
45 ......................................................................
50 ......................................................................
55 ......................................................................
60 ......................................................................
65 ......................................................................
70 ......................................................................
75 ......................................................................
80 ......................................................................

Barium (g/
hr)

Lead (g/hr)

5.2E+03
6.0E+03
6.8E+03
7.8E+03
9.6E+03
1.1E+04
1.4E+04
1.8E+04
2.2E+04
2.8E+04
3.6E+04
4.6E+04
5.8E+04
7.6E+04
1.2E+05
1.8E+05
2.5E+05
3.3E+05
4.4E+05
5.8E+05
7.6E+05
9.0E+05
1.1E+06
1.3E+06

9.4E+00
1.1E+01
1.2E+01
1.4E+01
1.7E+01
2.1E+01
2.6E+01
3.2E+01
4.0E+01
5.0E+01
6.4E+01
8.2E+01
1.0E+02
1.3E+02
2.1E+02
3.2E+02
4.6E+02
6.0E+02
7.8E+02
1.0E+03
1.4E+03
1.6E+03
1.9E+03
2.3E+03

3.1E+01
3.6E+01
4.0E+01
4.6E+01
5.8E+01
6.8E+01
8.6E+01
1.1E+02
1.3E+02
1.7E+02
2.2E+02
2.8E+02
3.5E+02
4.3E+02
7.2E+02
1.1E+03
1.5E+03
2.0E+03
2.6E+03
3.4E+03
4.6E+03
5.4E+03
6.4E+03
7.6E+03

Mercury
(g/hr)
3.1E+01
3.6E+01
4.0E+01
4.6E+01
5.8E+01
6.8E+01
8.6E+01
1.1E+02
1.3E+02
1.7E+02
2.2E+02
2.8E+02
3.5E+02
4.3E+02
7.2E+02
1.1E+03
1.5E+03
2.0E+03
2.6E+03
3.4E+03
4.6E+03
5.4E+03
6.4E+03
7.6E+03

Silver (g/
hr)
3.1E+02
3.6E+02
4.0E+02
4.6E+02
5.8E+02
6.8E+02
8.6E+02
1.1E+03
1.3E+03
1.7E+03
2.2E+03
2.8E+03
3.5E+03
4.3E+03
7.2E+03
1.1E+04
1.5E+04
2.0E+04
2.6E+04
3.4E+04
4.6E+04
5.4E+04
6.4E+04
7.6E+04

60

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Fmt 8010

Sfmt 8002

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Thallium
(g/hr)
3.1E+01
3.6E+01
4.0E+01
4.6E+01
5.8E+01
6.8E+01
8.6E+01
1.1E+02
1.3E+02
1.7E+02
2.2E+02
2.8E+02
3.5E+02
4.3E+02
7.2E+02
1.1E+03
1.5E+03
2.0E+03
2.6E+03
3.4E+03
4.6E+03
5.4E+03
6.4E+03
7.6E+03


### TABLE I-B—Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Noncomplex Terrain—Continued

<table>
<thead>
<tr>
<th>Terrain adjusted eff. stack ht. (m)</th>
<th>Antimony (g/hr)</th>
<th>Barium (g/hr)</th>
<th>Lead (g/hr)</th>
<th>Mercury (g/hr)</th>
<th>Silver (g/hr)</th>
<th>Thallium (g/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>9.4E+03</td>
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<td>2.8E+03</td>
<td>9.4E+03</td>
<td>9.4E+04</td>
<td>9.4E+03</td>
</tr>
<tr>
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<td>1.1E+04</td>
<td>1.8E+06</td>
<td>3.3E+03</td>
<td>1.1E+04</td>
<td>1.1E+05</td>
<td>1.1E+04</td>
</tr>
<tr>
<td>95</td>
<td>1.3E+04</td>
<td>2.2E+06</td>
<td>3.9E+03</td>
<td>1.3E+04</td>
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<td>1.5E+04</td>
<td>1.5E+05</td>
<td>1.5E+04</td>
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<tr>
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<td>1.8E+04</td>
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<td>1.8E+04</td>
<td>1.8E+05</td>
<td>1.8E+04</td>
</tr>
<tr>
<td>110</td>
<td>2.2E+04</td>
<td>3.6E+06</td>
<td>6.6E+03</td>
<td>2.2E+04</td>
<td>2.2E+05</td>
<td>2.2E+04</td>
</tr>
<tr>
<td>115</td>
<td>2.6E+04</td>
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<td>2.6E+04</td>
<td>2.6E+05</td>
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<tr>
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### TABLE I-C—Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Complex Terrain

Values for urban and rural areas

<table>
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<tr>
<th>Terrain adjusted eff. stack ht. (m)</th>
<th>Antimony (g/hr)</th>
<th>Barium (g/hr)</th>
<th>Lead (g/hr)</th>
<th>Mercury (g/hr)</th>
<th>Silver (g/hr)</th>
<th>Thallium (g/hr)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.4E+01</td>
</tr>
<tr>
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<td>3.5E+03</td>
<td>6.2E+00</td>
<td>2.1E+01</td>
<td>2.1E+02</td>
<td>2.1E+01</td>
</tr>
<tr>
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<td>3.0E+01</td>
<td>5.0E+03</td>
<td>9.2E+00</td>
<td>3.0E+01</td>
<td>3.0E+02</td>
<td>3.0E+01</td>
</tr>
<tr>
<td>95</td>
<td>4.3E+01</td>
<td>7.6E+03</td>
<td>1.3E+01</td>
<td>4.3E+01</td>
<td>4.3E+02</td>
<td>4.3E+01</td>
</tr>
<tr>
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<td>5.4E+01</td>
<td>9.0E+03</td>
<td>1.7E+01</td>
<td>5.4E+01</td>
<td>5.4E+02</td>
<td>5.4E+01</td>
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<tr>
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<td>1.1E+04</td>
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<td>6.8E+01</td>
<td>6.8E+02</td>
<td>6.8E+01</td>
</tr>
<tr>
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<td>8.6E+01</td>
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<td>8.6E+01</td>
<td>8.6E+02</td>
<td>8.6E+01</td>
</tr>
<tr>
<td>115</td>
<td>1.2E+01</td>
<td>1.6E+04</td>
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<td>1.2E+01</td>
<td>1.2E+02</td>
<td>1.2E+01</td>
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<tr>
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### TABLE I-D—Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain

<table>
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<tr>
<th>Terrain adjusted eff. stack ht. (m)</th>
<th>Arsenic (g/hr)</th>
<th>Cadmium (g/hr)</th>
<th>Chromium (g/hr)</th>
<th>Beryllium (g/hr)</th>
<th>Arsenic (g/hr)</th>
<th>Cadmium (g/hr)</th>
<th>Chromium (g/hr)</th>
<th>Beryllium (g/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.6E-01</td>
<td>1.1E+00</td>
<td>1.7E-01</td>
<td>8.2E-01</td>
<td>2.4E-01</td>
<td>5.8E-01</td>
<td>8.6E-02</td>
<td>4.3E-01</td>
</tr>
<tr>
<td>6</td>
<td>5.4E-01</td>
<td>1.3E+00</td>
<td>1.9E-01</td>
<td>9.4E-01</td>
<td>2.8E-01</td>
<td>6.6E-01</td>
<td>1.0E-01</td>
<td>5.0E-01</td>
</tr>
<tr>
<td>8</td>
<td>6.0E-01</td>
<td>1.4E+00</td>
<td>2.3E-01</td>
<td>1.1E+00</td>
<td>3.2E-01</td>
<td>7.6E-01</td>
<td>1.1E-01</td>
<td>5.6E-01</td>
</tr>
<tr>
<td>10</td>
<td>6.8E-01</td>
<td>1.6E+00</td>
<td>2.4E-01</td>
<td>1.2E+00</td>
<td>3.6E-01</td>
<td>8.6E-01</td>
<td>1.3E-01</td>
<td>6.4E-01</td>
</tr>
<tr>
<td>12</td>
<td>7.6E-01</td>
<td>1.8E+00</td>
<td>2.7E-01</td>
<td>1.4E+00</td>
<td>4.0E-01</td>
<td>1.1E+00</td>
<td>1.6E-01</td>
<td>7.8E-01</td>
</tr>
<tr>
<td>14</td>
<td>8.6E-01</td>
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<td>3.1E-01</td>
<td>1.5E+00</td>
<td>5.4E-01</td>
<td>1.3E+00</td>
<td>2.0E-01</td>
<td>9.6E-01</td>
</tr>
<tr>
<td>16</td>
<td>9.6E-01</td>
<td>2.3E+00</td>
<td>3.5E-01</td>
<td>1.7E+00</td>
<td>6.8E-01</td>
<td>1.5E+00</td>
<td>2.4E-01</td>
<td>1.1E+00</td>
</tr>
<tr>
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<td>2.0E+00</td>
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<td>2.0E+00</td>
<td>3.0E-01</td>
<td>1.5E+00</td>
</tr>
</tbody>
</table>
### TABLE I-D—Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain—Continued

<table>
<thead>
<tr>
<th>Terrain adjusted eff. stack ht. (m)</th>
<th>Arsenic (g/hr)</th>
<th>Cadmium (g/hr)</th>
<th>Chromium (g/hr)</th>
<th>Benzylum (g/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>1.2E+00</td>
<td>3.6E+00</td>
<td>4.4E-01</td>
<td>2.2E+00</td>
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<td>22</td>
<td>1.4E+00</td>
<td>3.4E+00</td>
<td>5.0E-01</td>
<td>2.5E+00</td>
</tr>
<tr>
<td>24</td>
<td>1.6E+00</td>
<td>3.6E+00</td>
<td>5.8E-01</td>
<td>2.8E+00</td>
</tr>
<tr>
<td>26</td>
<td>1.8E+00</td>
<td>4.3E+00</td>
<td>6.4E-01</td>
<td>3.2E+00</td>
</tr>
<tr>
<td>28</td>
<td>2.0E+00</td>
<td>4.8E+00</td>
<td>7.2E-01</td>
<td>3.6E+00</td>
</tr>
<tr>
<td>30</td>
<td>2.3E+00</td>
<td>5.4E+00</td>
<td>8.2E-01</td>
<td>4.0E+00</td>
</tr>
<tr>
<td>35</td>
<td>3.0E+00</td>
<td>6.6E+00</td>
<td>1.0E+00</td>
<td>5.4E+00</td>
</tr>
<tr>
<td>40</td>
<td>3.6E+00</td>
<td>9.0E+00</td>
<td>1.3E+00</td>
<td>8.2E+00</td>
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<tr>
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<td>1.7E+00</td>
<td>1.0E+01</td>
</tr>
<tr>
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<td>2.1E+01</td>
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<td>3.0E+01</td>
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<tr>
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</tr>
<tr>
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<td>1.1E+01</td>
<td>5.6E+01</td>
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### TABLE I-E—Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain

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<th>Terrain adjusted eff. stack ht. (m)</th>
<th>Arsenic (g/hr)</th>
<th>Cadmium (g/hr)</th>
<th>Chromium (g/hr)</th>
<th>Benzylum (g/hr)</th>
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<td>2.0E-01</td>
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<td>2.4E-01</td>
<td>5.8E-01</td>
<td>8.6E-02</td>
<td>4.3E-01</td>
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<td>1.3E-01</td>
<td>6.7E-01</td>
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<td>3.3E-01</td>
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### APPENDIX II TO PART 266—TIER I FEED RATE SCREENING LIMITS FOR TOTAL CHLORINE

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<th>Complex Terrain</th>
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### APPENDIX III TO PART 266—TIER II EMISSION RATE SCREENING LIMITS FOR FREE CHLORINE AND HYDROGEN CHLORIDE

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<th>Terrain-adjusted effective stack height (m)</th>
<th>Noncomplex terrain</th>
<th>Complex terrain</th>
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<td>Values for urban areas</td>
<td>Values for rural areas</td>
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<td>HCl (g/hr)</td>
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<td>Aluminum Phosphide</td>
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<td>Allyl Alcohol</td>
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<td>Antimony</td>
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<td>o-Dichlorobenzene</td>
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<td>Formic Acid</td>
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<td>Glycidoxyaldehyde</td>
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<td>Hydrocyanic Acid</td>
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<td>Hydrogen Chloride</td>
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<td>Lead</td>
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<th>RAC (ug/m³)</th>
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<td>Zinc Phosphate</td>
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*The RAC for other appendix VIII part 261 constituents not listed herein or in appendix V of this part is 0.1 ug/m³.

---

### APPENDIX V TO PART 266—RISK SPECIFIC DOSES (10⁻⁵)

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<th>CAS No.</th>
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<th>RsD (ug/m³)</th>
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<td>Aldrin</td>
<td>309–00–2</td>
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<td>2.0E–03</td>
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<td>Aniline</td>
<td>62–53–3</td>
<td>7.4E–06</td>
<td>1.4E+00</td>
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<td>Arsenic</td>
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<td>Benzidine</td>
<td>92–87–5</td>
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<td>Benzenesulfonyl chloride</td>
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<td>2,4-Dinitrotoluene</td>
<td>121–14–2</td>
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<td>1,2-Diphenyldihydrazine</td>
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<tr>
<td>Epichlorohydrin</td>
<td>106–89–8</td>
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<td>8.3E+00</td>
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<td>Ethylene Oxide</td>
<td>75–21–8</td>
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<td>1.0E–01</td>
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<td>Ethylene Dibromide</td>
<td>106–93–4</td>
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<td>Formaldehyde</td>
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<td>Heptachlor</td>
<td>76–44–8</td>
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<td>Heptachlor Epoxide</td>
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<td>Hexachlorobenzene</td>
<td>118–74–1</td>
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<td>Hexachlorobutadiene</td>
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<tr>
<td>Alpha-hexachloro-cyclohexane</td>
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<td>1.8E–03</td>
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<td>Beta-hexachloro-cyclohexane</td>
<td>319–85–7</td>
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<td>1.9E–02</td>
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<td>Gamma-hexachloro-cyclohexane</td>
<td>58–89–9</td>
<td>3.8E–04</td>
<td>2.6E–02</td>
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<td>Hexachloro-cyclohexane, Technical</td>
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<tr>
<td>Hexachlorodibenzofuran-p-dioxin(1,2 Mixture)</td>
<td>1.3E+00</td>
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<td>Hexachloroethane</td>
<td>67–72–1</td>
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<td>2.5E+00</td>
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<tr>
<td>Hydrazine</td>
<td>302–01–2</td>
<td>2.9E–03</td>
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<td>Hydrazine Sulfate</td>
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<td>3.4E–03</td>
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<td>3-Methylcholanthrene</td>
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<td>3.7E–03</td>
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<td>3.2E–02</td>
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<td>Methylene Chloride</td>
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<td>4,4'-Methylene-bis-2-chloroaniline</td>
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<td>Nickel</td>
<td>7440–02–0</td>
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<td>4.2E–02</td>
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<tr>
<td>Nickel Refinery Dust</td>
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<td>Nickel Sulfide</td>
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<td>N-Nitros-n-methylurea</td>
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<tr>
<td>N-Nitrosopyrrolidine</td>
<td>930–55–2</td>
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### APPENDIX VII TO PART 266—HEALTH-BASED LIMITS FOR EXCLUSION OF WASTE-DERIVED RESIDUES

**METALS—TCLP EXTRACT CONCENTRATION LIMITS—Continued**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>CAS No.</th>
<th>Concentration limits (mg/L)</th>
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<td>Cadmium</td>
<td>7440–43–9</td>
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<td>Chromium</td>
<td>7440–47–3</td>
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<td>Lead</td>
<td>7439–92–1</td>
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<tr>
<td>Mercury</td>
<td>7439–97–6</td>
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<td>Nickel</td>
<td>7440–22–4</td>
<td>5xE+00</td>
</tr>
<tr>
<td>Selenium</td>
<td>7782–49–2</td>
<td>1xE+00</td>
</tr>
<tr>
<td>Silver</td>
<td>7440–20–8</td>
<td>5xE+00</td>
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<tr>
<td>Thallium</td>
<td>7440–28–0</td>
<td>7xE+00</td>
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#### NONMETALS—RESIDUE CONCENTRATION LIMITS

<table>
<thead>
<tr>
<th>Constituent</th>
<th>CAS No.</th>
<th>Concentration limits for residues (mg/kg)</th>
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<tbody>
<tr>
<td>Acetonitrile</td>
<td>75–05–8</td>
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<td>Acetophenone</td>
<td>98–86–2</td>
<td>4E+00</td>
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<tr>
<td>Acrolein</td>
<td>107–02–1</td>
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<tr>
<td>Acrylamide</td>
<td>79–06–1</td>
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<tr>
<td>Acrylonitrile</td>
<td>107–13–1</td>
<td>7E–04</td>
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<tr>
<td>Aldrin</td>
<td>309–00–2</td>
<td>2E–05</td>
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<tr>
<td>Ally alcohol</td>
<td>107–18–6</td>
<td>1E–01</td>
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<tr>
<td>Aluminum phosphate</td>
<td>20859–73–8</td>
<td>1E+02</td>
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<tr>
<td>Aniline</td>
<td>62–53–4</td>
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<tr>
<td>Barium cyanide</td>
<td>542–62–1</td>
<td>1E+00</td>
</tr>
<tr>
<td>Benz[a]anthracene</td>
<td>56–55–3</td>
<td>1E–04</td>
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<tr>
<td>Benzene</td>
<td>71–43–2</td>
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<td>Benzidine</td>
<td>92–87–5</td>
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<tr>
<td>Bis(chloromethyl) ether</td>
<td>542–88–1</td>
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<td>Bis(2-ethylhexyl) phthalate</td>
<td>117–81–7</td>
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<tr>
<td>Bromoform</td>
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<td>Calcium cyanide</td>
<td>592–01–8</td>
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<tr>
<td>Carbon disulfide</td>
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<td>Carbon tetrachloride</td>
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<td>Chloroform</td>
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<td>Chlorobenzene</td>
<td>108–90–7</td>
<td>1E+00</td>
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<tr>
<td>Chloroform</td>
<td>67–68–2</td>
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<tr>
<td>Copper cyanide</td>
<td>544–92–2</td>
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<tr>
<td>Cresols (Cresylic acid)</td>
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<td>Cyanogen</td>
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<td>DDT</td>
<td>50–29–3</td>
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<td>Dibenzo(a,h)-anthracene</td>
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<td>1,2-Dibromo-3-chloropropane</td>
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<td>Dichlorodifluoromethane</td>
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<tr>
<td>Dichloroethane</td>
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<td>Diethyl phthalate</td>
<td>84–66–4</td>
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<tr>
<td>Diethylstilbestrol</td>
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<td>Dimethoate</td>
<td>60–51–5</td>
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<td>2,4-Dinitrotoluene</td>
<td>121–14–2</td>
<td>5E–04</td>
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<td>Diphenylamine</td>
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<td>5E–03</td>
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<td>Endosulfan</td>
<td>115–29–7</td>
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<td>Endrin</td>
<td>72–20–8</td>
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<td>Epichlorohydrin</td>
<td>106–89–9</td>
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<tr>
<td>Ethylene dibromide</td>
<td>106–93–4</td>
<td>7E–05</td>
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<td>Ethylene oxide</td>
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<td>3E+04</td>
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<td>Fluorine</td>
<td>7782–41–4</td>
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<tr>
<td>Formic acid</td>
<td>64–18–6</td>
<td>7E+01</td>
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<td>Heptachlor</td>
<td>76–44–5</td>
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<td>Heptachlor epoxide</td>
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<td>4E–05</td>
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<tr>
<td>Hexachlorobenzene</td>
<td>118–74–1</td>
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<td>Hexachlorobutadiene</td>
<td>87–68–3</td>
<td>2E–03</td>
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<td>Hexachlorocyclopentadiene-p-dioxins</td>
<td>19408–74–3</td>
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<td>Hydrazine</td>
<td>67–72–1</td>
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<td>Hydrogen cyanide</td>
<td>74–90–8</td>
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<td>Hydrogen sulfide</td>
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<td>Isobutyl alcohol</td>
<td>78–83–1</td>
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<td>Methylene chloride</td>
<td>75–09–2</td>
<td>5E–02</td>
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<td>Methyl ethyl ketone (MEK)</td>
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<td>Methyl hydrazine</td>
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<td>Methyl parathion</td>
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<td>Naphthalene</td>
<td>91–20–3</td>
<td>1E–01</td>
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<td>Nickel cyanide</td>
<td>507–19–7</td>
<td>7E–01</td>
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##### NONMETALS—RESIDUE CONCENTRATION LIMITS—Continued

<table>
<thead>
<tr>
<th>Constituent</th>
<th>CAS No.</th>
<th>Concentration limits for residues (mg/kg)</th>
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<tbody>
<tr>
<td>Nitric oxide</td>
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<tr>
<td>Nitrobenzene</td>
<td>98–95–3</td>
<td>2E–02</td>
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<td>N-Nitrosodiethylamine</td>
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<td>N-Nitrosodiethanol</td>
<td>684–93–5</td>
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<td>N-Nitrosodi-n-butylamine</td>
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<td>4E–04</td>
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<td>Pantetheinioleucine</td>
<td>608–93–5</td>
<td>3E+02</td>
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<td>Pentachlorobenzene</td>
<td>82–68–8</td>
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<tr>
<td>Pentachloronitrobenzene (PCNB)</td>
<td>87–86–5</td>
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<tr>
<td>Phenol</td>
<td>108–95–2</td>
<td>1E+00</td>
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<td>Phenylnitrile</td>
<td>62–38–4</td>
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<td>Phosphine</td>
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<td>Potassium cyanide</td>
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<td>Prion</td>
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<td>Pyridine</td>
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<td>50–55–5</td>
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<td>Silver cyanide</td>
<td>506–44–3</td>
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<td>Tetraethyl lead</td>
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<td>Thiourea</td>
<td>62–56–6</td>
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<td>Toluen</td>
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<td>1E+00</td>
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<tr>
<td>Vinyl chloride</td>
<td>75–01–4</td>
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#### *NOTE 1: The health-based concentration limits for appendix VIII part 261 constituents for which a health-based concentration is not provided below is 2xE–06 mg/kg.*

#### *NOTE 2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified in §266.112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction levels specified in §268.43 of this chapter for FOS9 nonsewaters. See §266.112(b)(2)(i).*


### APPENDIX VIII TO PART 266—ORGANIC COMPOUNDS FOR WHICH RESIDUES MUST BE ANALYZED

<table>
<thead>
<tr>
<th>Volatiles</th>
<th>Semivolatiles</th>
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</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>Bis(2-ethylhexyl) phthalate</td>
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</table>
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   2.1 Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste
   2.2 Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinermators, Boilers, and Industrial Furnaces
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   4.0 Procedure for Estimating the Toxicity Equivalency of Chlorinated Dibenzo-P-Dioxin and Dibenzofuran Congeners
5. **Hazardous Waste Combustion Air Quality Screening Procedure**
6. **Simplified Land Use Classification Procedure for Compliance With Tier I and Tier II Limits**
7. **Statistical Methodology for Bevill Residue Determinations**
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<table>
<thead>
<tr>
<th>Volatiles</th>
<th>Semivolatiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>Naphthalene</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>Phenol</td>
</tr>
<tr>
<td>Chloroform</td>
<td>Diethyl phthalate</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>Butyl benzy1 phthalate</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>2,4-Dimethylphenol</td>
</tr>
<tr>
<td>Tetra chloroethylene</td>
<td>o-Dichlorobenzene</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>m-Dichlorobenzene</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>p-Dichlorobenzene</td>
</tr>
<tr>
<td>cis-1,4-Dichloro-2-butene</td>
<td>Hexachlorobenzene</td>
</tr>
<tr>
<td>Bromochloromethane</td>
<td>2,4,6-Trichlorophenol</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
<td>Fluoranthene</td>
</tr>
<tr>
<td>Bromoform</td>
<td>o-Nitrophenol</td>
</tr>
<tr>
<td>Bromomethane</td>
<td>1,2,4-Trichlorobenzene</td>
</tr>
<tr>
<td>Methylene bromide</td>
<td>o-Chlorophenol</td>
</tr>
<tr>
<td>Methyl ethyl ketone</td>
<td>Pentachlorophenol</td>
</tr>
<tr>
<td></td>
<td>Pyrene</td>
</tr>
<tr>
<td></td>
<td>Omethyl phthalate</td>
</tr>
<tr>
<td></td>
<td>Mononitrobenzene</td>
</tr>
<tr>
<td></td>
<td>2,6-Toluene disocyanate</td>
</tr>
<tr>
<td></td>
<td>Polychlorinated dibenzop-dioxin 1</td>
</tr>
<tr>
<td></td>
<td>Polychlorinated dibenzofurans 1</td>
</tr>
</tbody>
</table>

1. Analyses for polychlorinated dibenzop-dioxins and polychlorinated dibenzofurans are required only for residues collected from areas downstream of the combustion chamber (e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.).

**NOTE TO THE TABLE:** Analysis is not required for those compounds that do not have an established FE39 nonwastewater concentration limit.


### 40 CFR Ch. I (7–1–12 Edition)

This document presents required methods for demonstrating compliance with U.S. Environmental Protection Agency regulations for boilers and industrial furnaces (BIFs) burning hazardous waste (see 40 CFR part 266, subpart H). The methods included in this document are:

4. Simplified Land Use Classification Procedure for Compliance with Tier I and Tier II Limits.
5. Statistical Methodology for Bevill Residue Determinations.
6. Procedures for Determining Default Values for Air Pollution Control System Removal Efficiencies.
8. Alternate Methodology for Implementing Metals Controls.
can be found in 40 CFR parts 60 and 61, and SW–846.

b. The CEM performance specifications of section 2.0, the relevant sampling Methods 0011, 0023A, 0050, 0051, 0060, and 0061 of SW–846, incorporated by reference in § 260.11, and the toxicity equivalency procedure for dioxins andfurans of section 4.0 are required procedures for determining compliance with BIF regulations. For the determination of chloride from HClO3, emission sampling train, you must use appropriate methods. For the determination of carbon monoxide compounds by high-performance liquid chromatography, you must use appropriate methods. The CEM performance specifications are interim. The finalized CEM performance specifications will be published in 40 CFR parts 60 and 61.

SECTION 2.0 PERFORMANCE SPECIFICATIONS FOR CONTINUOUS EMISSION MONITORING SYSTEMS

2.1 Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste

2.1.1.1 Applicability. These performance specifications apply to carbon monoxide (CO) and oxygen (O2) continuous emission monitoring systems (CEMSs) installed on incinerators, boilers, and industrial furnaces burning hazardous waste. The specifications include procedures which are intended to be used to evaluate the acceptability of the CEMS at the time of its installation or whenever specified in regulations or permits. The procedures are not designed to evaluate CEMS performance over an extended period of time. The source owner or operator is responsible for the proper calibration, maintenance, and operation of the CEMS at all times.

2.1.1.2 Principle. Installation and measurement location specifications, performance and equipment specifications, test and data reduction procedures, and brief quality assurance guidelines are included in the specifications. Calibration drift, relative accuracy, calibration error, and response time tests are conducted to determine conformance of the CEMS with the specifications.

2.1.2 Definitions

2.1.2.1 Continuous Emission Monitoring System (CEMS). A continuous monitor is one in which the sample to be analyzed passes the measurement section of the analyzer without interruption, and which evaluates the detector response to the sample at least once every 15 seconds and computes and records the results at least every 60 seconds. A CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, the analyzer(s), and the data recording/processing hardware and software.

2.1.2.2 Monitoring System Types. The specifications require CEMSs capable of accepting calibration gases. Alternative system designs may be used if approved by the Regional Administrator. There are two basic types of monitoring systems: extractive and in-situ.

2.1.2.2.1 Extractive. Systems that use a pump or other mechanical, pneumatic, or hydraulic means to draw a sample of the stack or flue gas and convey it to a remotely located analyzer.

2.1.2.2.2 In-situ. Systems that perform an analysis without removing a sample from the stack. Point in-situ analyzers place the sensing or detecting element directly in the flue gas stream. Cross-stack in-situ analyzers measure the parameter of interest by placing a source beam on one side of the stack and the detector (in single-pass instruments) or a retroreflector (in double-pass instruments) on the other side, and measuring the parameter of interest (e.g., CO) by the attenuation of the beam by the gas in its path.

2.1.2.3 Instrument Measurement Range. The difference between the minimum and maximum concentration that can be measured by a specific instrument. The minimum is often stated or assumed to be zero and the range expressed only as the maximum.

2.1.2.4 Span or Span Value. Full scale instrument measurement range.

2.1.2.5 Calibration Drift (CD). The difference in the CEMS output readings from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustment takes place. A CD test is performed to demonstrate the stability of the CEMS calibration over time.

2.1.2.6 Response Time. The time interval between the start of a step change in the system input (e.g., change of calibration gas) and the time when the data recorder displays 95 percent of the final value.

2.1.2.7 Accuracy. A measure of agreement between a measured value and an accepted or true value, expressed as the percentage difference between the true and measured values relative to the true value. For these performance specifications, accuracy is checked by conducting a calibration error (CE) test and a relative accuracy (RA) test. Certain facilities, such as those using solid waste or batch-fed processes, may observe long periods of almost no CO emissions with brief, high-level CO emission spikes. These facilities, as well as facilities whose CO emissions never exceed 5–10 ppm, may need to be exempted from the RA requirement because the RA test procedure cannot ensure acquisition of meaningful test results under these...
conditions. An alternative procedure for accuracy determination is described in section 2.1.9.

2.1.2.12 Centroidal Area. A concentric area that is geometrically similar to the stack or duct cross section and is no greater than 1 percent of the stack or duct cross-sectional area.

2.1.3 Installation and Measurement Location Specifications

2.1.3.1 CEMS Installation and Measurement Locations. The CEMS shall be installed in a location in which measurements representative of the source’s emissions can be obtained. The optimum location of the sample interface for the CEMS is determined by a number of factors, including ease of access for calibration and maintenance, the degree to which sample conditioning will be required, the degree to which it represents total emissions, and the degree to which it represents the combustion situation in the firebox. The location should be as free from in-leakage influences as possible and reasonably free from severe flow disturbances. The sample location should be at least two equivalent duct diameters downstream from the nearest control device, point of pollutant generation, or other point at which a change in the pollutant concentration or emission rate occurs and at least 0.5 diameter upstream from the exhaust or control device. The equivalent duct diameter is calculated as per 40 CFR part 60, appendix A, method 1, section 2.1.11. If these criteria are not achievable or if the location is otherwise less than optimum, the possibility of stratification should be checked as described in Section 2.1.3.2 to determine whether the location would cause failure of the relative accuracy test.

2.1.3.2 Performance Test Method (PTM)

The sampling and analysis procedure used to obtain reference measurements for comparison to CEMS measurements. The applicable test methods are Method 10, 10A, or 10B (for the determination of CO) and Method 3 or 3A (for the determination of O2). These methods are found in 40 CFR part 60, appendix A.

2.1.3.2.1 Select an accessible PTM measurement point at least two equivalent diameters downstream from the nearest control device, the point of CO generation, or other point at which a change in the CO concentration may occur, and at least a half equivalent diameter upstream from the effluent exhaust or control device. When pollutant concentration changes are due solely to diluent leakage (e.g., air heater leakages) and CO and O2 are simultaneously measured at the same location, one half diameter may be used in place of two equivalent diameters.

The CEMS and PTM locations need not be the same.

2.1.3.2.2 Select traverse points that ensure acquisition of representative samples over the stack or duct cross section. At a minimum, establish a measurement line that passes through the centroidal area in the direction of any expected stratification. If this line interferes with the CEMS measurements, displace the line up to 30 cm (or 5 percent of the equivalent diameter of the cross section, whichever is less) from the centroidal area. Locate three traverse points at 17, 50, and 83 percent of the measurement line. If the measurement line is no longer than 2.4 meters and pollutant stratification is not expected, the tester may choose to locate the three traverse points on the line at 0.4, 1.2, and 2.0 meters from the stack or duct wall. This option must not be used at a site located within eight equivalent diameters downstream of a flow disturbance. The tester may select other traverse points, provided that they can be shown to the satisfaction of the Administrator to provide a representative sample over the stack or duct cross-section. Conduct all necessary PTM tests within 3 cm of the selected traverse points. Sampling must not be performed within 3 cm of the duct or stack inner wall.
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2.1.3.3 Stratification Test Procedure. Stratification is defined as a difference in excess of 10 percent between the average concentration in the duct or stack and the concentration at any point more than 1.0 meter from the duct or stack wall. To determine whether effluent stratification exists, a dual probe system should be used to determine the average effluent concentration while measurements at each traverse point are being made. One probe, located at the stack or duct centroid, is used as a stationary reference point to indicate the change in effluent concentration over time. The second probe is used for sampling at the traverse points specified in method 1, appendix A, 40 CFR part 60. The monitoring system samples sequentially at the reference and traverse points throughout the testing period for five minutes at each point.

2.1.4 CEMS Performance and Equipment Specifications

Table 2.1-1 summarizes the performance specifications for the CEMSs. Two sets of standards for CO are given; one for low-range and another for high-range measurements. The high-range specifications relate to measurement and quantification of short duration high concentration peaks, while the low-range specifications relate to the overall average operating condition of the burning device. The dual-range specifications can be met by using (1) one analyzer for each range, (2) a dual range unit, or (3) a single measurement range instrument capable of meeting both specifications with a single unit. Adjustments cannot be made to the analyzer between determinations of low- and high-level accuracy within the single measurement range. In the second case, when the concentration exceeds the span of the lower range, the data acquisition system recorder shall switch to the high range automatically.

2.1.4.1 CEMS Span Value. In order to measure high and low concentrations with the same or similar degree of accuracy, the maximum ranges (span values) are specified for low and high range analyzers. The span values are listed in Table 2.1–2. Tier I and II format definitions are established in 40 CFR part 266, subpart H.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>CO monitors</th>
<th>O₂ monitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibration drift 24 hours</td>
<td>Low range</td>
<td>High range</td>
</tr>
<tr>
<td>Calibration error. Response time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;6 ppm/hr</td>
<td>&lt;90 ppm</td>
<td>&lt;0.5% O₂</td>
</tr>
<tr>
<td>&lt;10 ppm/hr</td>
<td>&lt;150 ppm</td>
<td>&lt;0.5% O₂</td>
</tr>
<tr>
<td>&lt;2 min</td>
<td>&lt;2 min</td>
<td>&lt;2 min</td>
</tr>
</tbody>
</table>

2.1.4.2 Daily Calibration Gas Values. The owner or operator must choose calibration gas concentrations (or calibration filters for in-situ systems) that include zero and high-level calibration values for the daily calibration checks. For a single measurement range monitor, three CO calibration gas concentrations (or calibration filters for in-situ systems) shall be used, i.e., the zero and high-level concentrations of the low-range CO analyzer and the high-level concentration of the high-range CO analyzer.

2.1.4.2.1 The zero level for the CO or O₂ analyzer may be between zero and 20 percent of the span value, e.g., 0–40 ppm for low-range CO analyzer, 0–600 ppm for the high-range CO analyzer, 0–15 ppm CO for high-range CO analyzer, and 0–5 percent for the O₂ analyzer (for Tier I).

2.1.4.2.2 The high-level concentration for the CO or O₂ analyzer shall be between 50 and 90 percent of the span value, i.e., 100–180 ppm for the low-range CO analyzer, 1500–2700 ppm for the high-range CO analyzer, and 12.5–22.5 percent O₂ for the O₂ analyzer.

2.1.4.3 Data Recorder Scale. The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEMS’s measurement range and shall have a resolution of 0.5 percent of span value, i.e., 1 ppm CO for low-range CO analyzer, 15 ppm CO for high-range CO analyzer, and 0.1 percent O₂ for the O₂ analyzer.

2.1.4.4 Response Time. The response time for the CO or O₂ monitor shall not exceed 2 minutes to achieve 95 percent of the final stable value.

2.1.4.5 Calibration Drift. The CEMS must allow the determination of CD at the zero and high-level values. The CD must be determined separately for CO and O₂ monitors in
terms of concentration. The CO CEMS calibration response must not drift or deviate from the reference value of the calibration gas (or calibration filters for in-situ systems) by more than 10 percent of the span value after each 24-hour period of the 7-day test, i.e., 6 ppm CO for the low-range analyzer (Tier I) and 90 ppm for the high-range analyzer, at both zero and high levels. The O₂ monitor calibration response must not drift or deviate from the reference value by more than 0.5 percent O₂ at both zero and high levels.

2.1.4.6 Relative Accuracy. The result of the RA test of the CO CEMS (which incorporates the O₂ monitor) must be no greater than 10 percent of the mean value of the PTM results or must be within 10 ppm CO of the PTM results, whichever is less restrictive. The ppm CO concentration shall be corrected to 7 percent O₂ before calculating the RA.

2.1.4.7 Calibration Error. The mean difference between the CEMS and reference values at all three test points (see Table 2.1-3) must be no greater than 5 percent of span value for CO monitors (i.e., 10 ppm CO for low range Tier I CO analyzers and 150 ppm CO for high range CO analyzers) and 0.5 percent for O₂ analyzers.

2.1.4.8 Measurement and Recording Frequency. The sample to be analyzed shall pass through the measurement section of the analyzer without interruption. The detector shall measure the sample concentration at least once every 15 seconds. An average emission rate shall be computed and recorded at least once every 60 seconds.

2.1.4.9 Hourly Rolling Average Calculation. The CEMS shall calculate every minute an hourly rolling average, which is the arithmetic mean of the 60 most recent 1-minute average values.

2.1.4.10 Retest. If the CEMS produces results within the specified criteria, the test is successful. If the CEMS does not meet one or more of the criteria, the necessary corrections must be made and the performance tests repeated.

2.1.5 Test Periods

2.1.5.1 Pretest Preparation Period. Install the CEMS, prepare the PTM test site according to the specifications in section 2.1.3, and prepare the CEMS for operation and calibration according to the manufacturer’s written instructions. A pretest conditioning period similar to that of the 7-day CD test is recommended to verify the operational status of the CEMS.

2.1.5.2 Calibration Drift Test Period. While the facility is operating under normal conditions, determine the CD at 24-hour intervals for seven consecutive days according to the procedure given in section 2.1.6.1. All CD determinations must be made following a 24-hour period during which no unscheduled maintenance, repair, or adjustment takes place. If the combustion unit is taken out of service during the test period, record the onset and duration of the downtime and continue the calibration drift test when the unit resumes operation.

2.1.5.3 Relative Accuracy Test Period. Conduct the RA test according to the procedure in section 2.1.6.4 while the combustion unit is operating under normal conditions. RA testing for CO and O₂ shall be conducted simultaneously so that the results can be calculated for CO corrected to 7 percent O₂. The RA test shall be conducted during the CD test period. It is emphasized that during the CD test period, no adjustments or repairs may be made to the CEMS other than routine calibration adjustments performed immediately following the daily CD determination.

2.1.5.4 Calibration Error Test and Response Time Test Periods. Conduct the CE and response time tests during the CD test period.

2.1.6 Performance Specification Test Procedures

2.1.6.1 Calibration Drift Test.

2.1.6.1.1 Sampling Strategy. Conduct the CD test for all monitors at 24-hour intervals for seven consecutive days using calibration gases at the two (or three, if applicable) concentration levels specified in section 2.1.4.2. Introduce the calibration gases into the sampling system as close to the sampling probe outlet as practical. The gas shall pass through all filters, scrubbers, conditioners, and other CEMS components used during normal sampling. If periodic automatic or manual adjustments are made to the CEMS zero and calibration settings, conduct the CD test immediately before these adjustments, or conduct it in such a way that the CD can be determined. Record the CEMS response and subtract this value from the reference (calibration gas) value. To meet the specification, none of the differences shall exceed the limits specified in Table 2.1.1.

2.1.6.1.2 Calculations. Summarize the results on a data sheet. An example is shown in Figure 2.1-1. Calculate the differences between the CEMS responses and the reference values.

2.1.6.2 Response Time. Check the entire CEMS including sample extraction and transport, sample conditioning, gas analyses, and the data recording.

2.1.6.2.1 Introduce zero gas into the system. For extractive systems, introduce the calibration gases at the probe as near to the sample location as possible. For in-situ systems, introduce the zero gas at a point such that all components active in the analysis are tested. When the system output has stabilized (no change greater than 1 percent of full scale for 30 seconds), switch to monitor stack effluent and wait for a stable value.
2.1.6.2 Next, introduce a high-level calibration gas and repeat the above procedure. Repeat the entire procedure three times and determine the mean upscale and downscale response times. The longer of the two means is the system response time.

2.1.6.3 Calibration Error Test Procedure.

2.1.6.3.1 Sampling Strategy. Challenge each monitor (both low- and high-range CO and O₂) with zero gas and EPA Protocol 1 cylinder gases at three measurement points within the ranges specified in Table 2.1–3.

### TABLE 2.1–3—CALIBRATION ERROR CONCENTRATION RANGES FOR TIER I

<table>
<thead>
<tr>
<th>Measurement point</th>
<th>CO, ppm</th>
<th>O₂, percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low range¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0–40</td>
<td>0–600</td>
</tr>
<tr>
<td>2</td>
<td>60–80</td>
<td>900–1200</td>
</tr>
<tr>
<td>3</td>
<td>140–160</td>
<td>2100–2400</td>
</tr>
</tbody>
</table>

¹For Tier II, the CE specifications for the low-range CD CEMS are 0–20%, 30–40%, and 70–80% of twice the permit limit.

2.1.6.3.1.1 If a single measurement range is used, the calibration gases used in the daily CD checks (if they are Protocol 1 cylinder...
gases and meet the criteria in section 2.1.6.3.1) may be used for determining CE.

2.1.6.3.2 Operate each monitor in its normal sampling mode as nearly as possible. The calibration gas shall be injected into the sample system as close to the sampling probe outlet as practical and should pass through all CEMS components used during normal sampling. Challenge the CEMS three non-consecutive times at each measurement point and record the responses. The duration of each gas injection should be sufficient to ensure that the CEMS surfaces are conditioned.

2.1.6.3.2 Calculations. Summarize the results on a data sheet. An example data sheet is shown in Figure 2.1-2. Average the differences between the instrument response and the certified cylinder gas value for each gas. Calculate three CE results (five CE results for a single-range CO CEMS) according to Equation 5 (section 2.1.7.5). No confidence coefficient is used in CE calculations.

2.1.6.4 Relative Accuracy Test Procedure.

2.1.6.4.1 Sampling Strategy for PTM tests. Conduct the PTM tests in such a way that they will yield measurements representative of the emissions from the source and can be correlated to the CEMS data. Although it is preferable to conduct the CO, diluent, and moisture (if needed) simultaneously, moisture measurements that are taken within a 60-minute period which includes the simultaneous CO and O_2 measurements may be used to calculate the dry CO concentration.

NOTE: At times, CEMS RA tests may be conducted during incinerator performance tests. In these cases, PTM results obtained during CEMS RA tests may be used to determine compliance with incinerator emissions limits as long as the source and test conditions are consistent with the applicable regulations.
2.1.6.4.2 Performance Test Methods.

2.1.6.4.2.1 Unless otherwise specified in the regulations, method 3 or 3A and method 10, 10A, or 10B (40 CFR part 60, appendix A) are the test methods for O\(_3\) and CO, respectively. Make a sample traverse of at least 21 minutes, sampling for 7 minutes at each of the traverse points (see section 3.2).

2.1.6.4.2.2 When the installed CEMS uses a nondispersive infrared (NDIR) analyzer, method 10 shall use the alternative interference trap specified in section 10.1 of the method. An option, which may be approved by the Administrator in certain cases, would allow the test to be conducted using method 10 without the interference trap. Under this option, a laboratory interference test is performed for the analyzer prior to the field test. The laboratory interference test includes the analysis of SO\(_2\), NO, and CO\(_2\) calibration gases over the range of expected effluent concentrations. Acceptable performance is indicated if the CO analyzer response to each of the gases is less than 1 percent of the applicable measurement range of the analyzer.

2.1.6.4.3 Number of PTM Tests. Conduct a minimum of nine sets of all necessary PTM tests. If more than nine sets are conducted, a maximum of three sets may be rejected at the tester's discretion. The total number of sets used to determine the RA must be greater than or equal to nine. All data, including the rejected data, must be reported.

2.1.6.4.4 Correlation of PTM and CEMS Data. The time and duration of each PTM test run and the CEMS response time should be considered in correlating the data. Use the CEMS final output (the one used for reporting) to determine an integrated average CO concentration for each PTM test run. Confirm that the pair of results are on a consistent moisture and O\(_2\) concentration basis. Each integrated CEMS value should then be compared against the corresponding average PTM value. If the CO concentration measured by the CEMS is normalized to a specified diluent concentration, the PTM results shall be normalized to the same value.

2.1.6.4.5 Calculations. Summarize the results on a data sheet. Calculate the mean of the PTM values and calculate the arithmetic differences between the PTM and the CEMS data sets. The mean of the differences, standard deviation, confidence coefficient, and CEMS RA should be calculated using Equations 1 through 4.

2.1.7 Equations

2.1.7.1 Arithmetic Mean (\(d\)). Calculate \(d\) of the difference of a data set using Equation 1.

\[
\bar{d} = \frac{1}{n} \sum_{i=1}^{n} d_i \quad (\text{Eq. 1})
\]

where:

- \(n\)=Number of data points.

\[
\sum_{i=1}^{n} d_i = \text{Algebraic sum of the individual differences } d_i.
\]

When the mean of the differences of pairs of data is calculated, correct the data for moisture, if applicable.

2.1.7.2 Standard Deviation (\(S_d\)). Calculate \(S_d\) using Equation 2.

\[
s_d = \sqrt{\frac{\sum_{i=1}^{n} d_i^2}{n-1}}
\]

(\text{Eq. 2})

2.1.7.3 Confidence Coefficient (CC). Calculate the 2.5 percent error CC (one-tailed) using Equation 3.

\[
CC = t_{0.975} \frac{S_d}{\sqrt{n}}
\]

(\text{Eq. 3})

where:

- \(t_{0.975}\)=t-value (see Table 2.1–4).

2.1.7.4 Relative Accuracy. Calculate the RA of a set of data using Equation 4.

\[
RA = \frac{|d| + |CC|}{\text{PTM}} \times 100
\]

(\text{Eq. 4})

where:

- \(|d|\)=Absolute value of the mean of the differences (Equation 1).
- \(|CC|\)=Absolute value of the confidence coefficient (Equation 3).
- PTM=Average reference value.

2.1.7.5 Calibration Error. Calculate CE using Equation 5.

\[
CE = \left| \frac{\bar{d}}{\text{FS}} \right| \times 100
\]

(\text{Eq. 5})

where:

- \(\bar{d}\)=Mean difference between CEMS response and the known reference concentration.

### Table 2.1–4—T-Values

<table>
<thead>
<tr>
<th>(n)</th>
<th>(t_{0.05})</th>
<th>(n^2)</th>
<th>(t_{0.05})</th>
<th>(n)</th>
<th>(t_{0.05})</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12.706</td>
<td>7</td>
<td>2.447</td>
<td>12</td>
<td>2.201</td>
</tr>
<tr>
<td>3</td>
<td>4.303</td>
<td>8</td>
<td>2.365</td>
<td>13</td>
<td>2.179</td>
</tr>
<tr>
<td>4</td>
<td>3.182</td>
<td>9</td>
<td>2.306</td>
<td>14</td>
<td>2.160</td>
</tr>
<tr>
<td>5</td>
<td>2.776</td>
<td>10</td>
<td>2.262</td>
<td>15</td>
<td>2.145</td>
</tr>
<tr>
<td>6</td>
<td>2.571</td>
<td>11</td>
<td>2.228</td>
<td>16</td>
<td>2.131</td>
</tr>
</tbody>
</table>

*The values in this table are already corrected for \(n-1\) degrees of freedom. Use \(n\) equal to the number of individual values.
2.1.8 Reporting

At a minimum, summarize in tabular form the results of the CD, RA, response time, and CE test, as appropriate. Include all data sheets, calculations, CEMS data records, and cylinder gas or reference material certifications.

2.1.9 Alternative Procedure

2.1.9.1 Alternative RA Procedure Rationale. Under some operating conditions, it may not be possible to obtain meaningful results using the RA test procedure. This includes conditions where consistent, very low CO emissions or low CO emissions interrupted periodically by short duration, high level spikes are observed. It may be appropriate in these circumstances to waive the PTM RA test and substitute the following procedure.

2.1.9.2 Alternative RA Procedure. Conduct a complete CEMS status check following the manufacturer's written instructions. The check should include operation of the light source, signal receiver, timing mechanism functions, data acquisition and data reduction functions, data recorders, mechanically operated functions (mirror movements, calibration gas valve operations, etc.), sample filters, sample line heaters, moisture traps, and other related functions of the CEMS, as applicable. All parts of the CEMS must be functioning properly before the RA requirement can be waived. The instruments must also have successfully passed the CE and CD requirements of the performance specifications. Substitution of the alternative procedure requires approval of the Regional Administrator.

2.1.10 Quality Assurance (QA)

Proper calibration, maintenance, and operation of the CEMS is the responsibility of the owner or operator. The owner or operator must establish a QA program to evaluate and monitor CEMS performance. As a minimum, the QA program must include:

2.1.10.1 A daily calibration check for each monitor. The calibration must be adjusted if the check indicates the instrument’s CD exceeds the specification established in section 2.1.4.5. The gases shall be injected as close to the probe as possible to provide a check of the entire sampling system. If an alternative calibration procedure is desired (e.g., direct injections or gas cells), subject to Administrator approval, the adequacy of this alternative procedure may be demonstrated during the initial 7-day CD test. Periodic comparisons of the two procedures are suggested.

2.1.10.2 A daily system audit. The audit must include a review of the calibration check data, an inspection of the recording system, an inspection of the control panel warning lights, and an inspection of the sample transport and interface system (e.g., flowmeters, filters), as appropriate.

2.1.10.3 A quarterly calibration error (CE) test. Quarterly RA tests may be substituted for the CE test when approved by the Director on a case-by-case basis.

2.1.10.4 An annual performance specification test.

2.1.11 References


2.2 Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste

2.2.1 Applicability and Principle

2.2.1.1 Applicability. These performance specifications apply to hydrocarbon (HC) continuous emission monitoring systems (CEMSs) installed on incinerators, boilers, and industrial furnaces burning hazardous waste. The specifications include procedures which are intended to be used to evaluate the acceptability of the CEMS at the time of its installation or whenever specified in regulations or permits. The procedures are not designed to evaluate CEMS performance over an extended period of time. The source owner or operator is responsible for the proper calibration, maintenance, and operation of the CEMS at all times.

2.2.1.2 Principle. A gas sample is extracted from the source through a heated sample line and heated filter (except as provided by section 2.2.10) to a flame ionization...
detector (FID). Results are reported as volume concentration equivalents of propane. Installation and measurement location specifications, performance and equipment specifications, test and data reduction procedures, and brief quality assurance guidelines are included in the specifications. Calibration drift, calibration error, and response time tests are conducted to determine performance of the CEMS with the specifications.

2.2 Definitions

2.2.1 Continuous Emission Monitoring System (CEMS). The total equipment used to acquire data, which includes sample extraction and transport hardware, analyzer, data recording and processing hardware, and software. The system consists of the following major subsystems:

2.2.1.1 Sample Interface. That portion of the system that is used for one or more of the following: Sample acquisition, sample transportation, sample conditioning, or protection of the analyzer from the effects of the stack effluent.

2.2.1.2 Organic Analyzer. That portion of the system that senses organic concentration and generates an output proportional to the gas concentration.

2.2.1.3 Data Recorder. That portion of the system that records a permanent record of the measurement values. The data recorder may include automatic data reduction capabilities.

2.2.2 Instrument Measurement Range. The difference between the minimum and maximum concentration that can be measured by a specific instrument. The minimum is often stated or assumed to be zero and the range expressed only as the maximum.

2.2.2.1 Span or Span Value. Full scale instrument measurement range.

2.2.2.2 Calibration Drift (CD). The difference in the CEMS output readings from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustment takes place. A CD test is performed to demonstrate the stability of the CEMS calibration over time.

2.2.2.3 Response Time. The time interval between the start of a step change in the system input (e.g., change of calibration gas) and the time when the data recorder displays 63 percent of the final value.

2.2.2.4 Accuracy. A measurement of agreement between a measured value and an accepted or true value, expressed as the percentage difference between the true and measured values relative to the true value. For these performance specifications, accuracy is checked by conducting a calibration error (CE) test.

2.2.2.5 Calibration Drift (CD). The difference between the concentration indicated by the CEMS and the known concentration of the cylinder gas. A CE test procedure is performed to document the accuracy and linearity of the monitoring equipment over the entire measurement range.

2.2.2.6 Response Time (PST) Period. The period during which CD, CE, and response time tests are conducted.

2.2.2.7 Centroidal Area. A concentric area that is geometrically similar to the stack or duct cross section and is no greater than 1 percent of the stack or duct cross-sectional area.

2.2.2.8 Calibration Error (CE). The difference between the concentration indicated by the CEMS and the known concentration of the cylinder gas. A CE test procedure is performed to document the accuracy and linearity of the monitoring equipment over the entire measurement range.

2.2.2.9 Performance Specification Test (PST) Period. The period during which CD, CE, and response time tests are conducted.

2.2.3 Installation and Measurement Location Specifications

2.2.3.1 CEMS Installation and Measurement Locations. The CEMS shall be installed in a location in which measurements are representative of the source's emissions can be obtained. The optimum location of the sample interface for the CEMS is determined by a number of factors, including ease of access for calibration and maintenance, the degree to which sample conditioning will be required, the degree to which it represents total emissions, and the degree to which it represents the combustion situation in the firebox. The location should be as free from in-leakage influences as possible and reasonably free from severe flow disturbances. The sample location should be at least two equivalent duct diameters downstream from the nearest control device, point of pollutant generation, or other point at which a change in the pollutant concentration or emission rate occurs and at least 0.5 diameter upstream from the exhaust or control device. The equivalent duct diameter is calculated as per 40 CFR part 60, appendix A, method 1, section 2.1. If these criteria are not achievable or if the location is otherwise less than optimum, the possibility of stratification should be investigated as described in section 2.3.2. The measurement point shall be within the centroidal area of the stack or duct cross section.

2.2.3.2 Stratification Test Procedure. Stratification is defined as a difference in excess of 10 percent between the average concentration in the duct or stack and the concentration at any point more than 1.0 meter from the duct or stack wall. To determine whether effluent stratification exists, a dual probe system should be used to determine the average effluent concentration while measurements at each traverse point are being made. One probe, located at the stack or duct centroid, is used as a stationary reference point to indicate the change in effluent concentration over time. The second probe is used for sampling at the traverse points specified in 40 CFR part 60 appendix A, method 1. The monitoring system samples sequentially at the reference and traverse...
points throughout the testing period for five minutes at each point.

2.2.4 CEMS Performance and Equipment Specifications

If this method is applied in highly explosive areas, caution and care shall be exercised in choice of equipment and installation.

2.2.4.1 Flame Ionization Detector (FID) Analyzer. A heated FID analyzer capable of meeting or exceeding the requirements of these specifications. Heated systems shall maintain the temperature of the sample gas between 150 °C (300 °F) and 175 °C (350 °F) throughout the system. This requires all system components such as the probe, calibration valve, filter, sample lines, pump, and the FID to be kept heated at all times such that no moisture is condensed out of the system.

Note: As specified in the regulations, unheated HC CEMSs may be considered an acceptable interim alternative monitoring technique. For additional notes, see section 2.2.10. The essential components of the measurement system are described below:

2.2.4.1.1 Sample Probe. Stainless steel, or equivalent, to collect a gas sample from the centroidal area of the stack cross-section.

2.2.4.1.2 Sample Line. Stainless steel or Teflon tubing to transport the sample to the analyzer.

Note: Mention of trade names or specific products does not constitute endorsement by the Environmental Protection Agency.

2.2.4.1.3 Calibration Valve Assembly. A heated three-way valve assembly to direct the zero and calibration gases to the analyzer is recommended. Other methods, such as quick-connect lines, to route calibration gas to the analyzers are applicable.

2.2.4.1.4 Particulate Filter. An in-stack or out-of-stack sintered stainless steel filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter must be heated.

2.2.4.1.5 Fuel. The fuel specified by the manufacturer (e.g., 40 percent hydrogen/60 percent helium, 40 percent hydrogen/60 percent nitrogen gas mixtures, or pure hydrogen) should be used.

2.2.4.1.6 Zero Gas. High purity air with less than 0.1 parts per million by volume (ppm) HC as methane or carbon equivalent or less than 0.1 percent of the span value, whichever is greater.

2.2.4.1.7 Calibration Gases. Appropriate concentrations of propane gas (in air or nitrogen). Preparation of the calibration gases should be done according to the procedures in EPA Protocol 1. In addition, the manufacturer of the cylinder gas should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change by more than ±2 percent from the certified value.

2.2.4.2 CEMS Span Value. 100 ppm propane.

2.2.4.3 Daily Calibration Gas Values. The owner or operator must choose calibration gas concentrations that include zero and high-level calibration values.

2.2.4.3.1 The zero level may be between 0 and 20 ppm (zero and 20 percent of the span value).

2.2.4.3.2 The high-level concentration shall be between 50 and 90 ppm (50 and 90 percent of the span value).

2.2.4.4 Data Recorder Scale. The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEMS’s measurement range and shall have a resolution of 0.5 ppm (0.5 percent of span value).

2.2.4.5 Response Time. The response time for the CEMS must not exceed 2 minutes to achieve 95 percent of the final stable value.

2.2.4.6 Calibration Drift. The CEMS must allow the determination of CD at the zero and high-level values. The CEMS calibration response must not differ by more than ±3 ppm (±3 percent of the span value) after each 24-hour period of the 7-day test at both zero and high levels.

2.2.4.7 Calibration Error. The mean difference between the CEMS and reference values at all three test points listed below shall be no greater than 5 ppm (±5 percent of the span value).

2.2.4.7.1 Zero Level. Zero to 20 ppm (0 to 20 percent of span value).

2.2.4.7.2 Mid-Level. 30 to 40 ppm (30 to 40 percent of span value).

2.2.4.7.3 High-Level. 70 to 80 ppm (70 to 80 percent of span value).

2.2.4.8 Measurement and Recording Frequency. The sample to be analyzed shall pass through the measurement section of the analyzer without interruption. The detector shall measure the sample concentration at least once every 15 seconds. An average emission rate shall be computed and recorded at least once every 60 seconds.

2.2.4.9 Hourly Rolling Average Calculation. The CEMS shall calculate every minute an hourly rolling average, which is the arithmetic mean of the 60 most recent 1-minute average values.

2.2.4.10 Retest. If the CEMS produces results within the specified criteria, the test is successful. If the CEMS does not meet one or more of the criteria, necessary corrections must be made and the performance tests repeated.

2.2.5 Performance Specification Test (PST) Periods.

2.2.5.1 Pretest Preparation Period. Install the CEMS, prepare the PTM test site according to the specifications in section 2.2.3, and
prepare the CEMS for operation and calibration according to the manufacturer’s written instructions. A pretest conditioning period similar to that of the 7-day CD test is recommended to verify the operational status of the CEMS.

2.2.5.2 Calibration Drift Test Period. While the facility is operating under normal conditions, determine the magnitude of the CD at 24-hour intervals for seven consecutive days according to the procedure given in section 2.2.6.1. All CD determinations must be made following a 24-hour period during which no unscheduled maintenance, repair, or adjustment takes place. If the combustion unit is taken out of service during the test period, record the onset and duration of the downtime and continue the CD test when the unit resumes operation.

2.2.5.3 Calibration Error Test and Response Time Test Periods. Conduct the CE and response time tests during the CD test period.

2.2.6 Performance Specification Test Procedures

2.2.6.1 Calibration Drift Test.

2.2.6.1.1 Sampling Strategy. Conduct the CD test at 24-hour intervals for seven consecutive days using calibration gases at the two daily concentration levels specified in section 2.2.4.3. Introduce the two calibration gases into the sampling system as close to the sampling probe outlet as practical. The gas shall pass through all CEM components used during normal sampling. If periodic automatic or manual adjustments are made to the CEMS zero and calibration settings, conduct the CD test immediately before these adjustments, or conduct it in such a way that the CD can be determined. Record the CEMS response and subtract this value from the reference (calibration gas) value. To meet the specification, none of the differences shall exceed 3 ppm.

2.2.6.1.2 Calculations. Summarize the results on a data sheet. An example is shown in Figure 2.2–1. Calculate the differences between the CEMS responses and the reference values.

2.2.6.2 Response Time. The entire system including sample extraction and transport, sample conditioning, gas analyses, and the data recording is checked with this procedure.

2.2.6.2.1 Introduce the calibration gases at the probe as near to the sample location as possible. Introduce the zero gas into the system. When the system output has stabilized (no change greater than 1 percent of full scale for 30 sec), switch to monitor stack effluent and wait for a stable value. Record the time (upscale response time) required to reach 95 percent of the final stable value.

2.2.6.2.2 Next, introduce a high-level calibration gas and repeat the above procedure. Repeat the entire procedure three times and determine the mean upscale and downscale response times. The longer of the two means is the system response time.

2.2.6.3 Calibration Error Test Procedure.

2.2.6.3.1 Sampling Strategy. Challenge the CEMS with zero gas and EPA Protocol 1 cylinder gases at measurement points within the ranges specified in section 2.2.4.7.

2.2.6.3.1.1 The daily calibration gases, if Protocol 1, may be used for this test.
Figure 2.2-1 Calibration Drift Determination
2.2.6.3.1.2 Operate the CEMS as nearly as possible in its normal sampling mode. The calibration gas should be injected into the sampling system as close to the sampling probe outlet as practical and shall pass through all filters, scrubbers, conditioners, and other monitor components used during normal sampling. Challenge the CEMS three non-consecutive times at each measurement point and record the responses. The duration of each gas injection should be for a sufficient period of time to ensure that the CEMS surfaces are conditioned.

2.2.6.3.2 Calculations. Summarize the results on a data sheet. An example data sheet is shown in Figure 2.2-2. Average the differences between the instrument response and the certified cylinder gas value for each gas. Calculate three CE results according to Equation 1. No confidence coefficient is used in CE calculations.

2.2.7 Equations

2.2.7.1 Calibration Error. Calculate CE using Equation 1.

\[
CE = \left| \frac{\bar{d}}{FS} \right| \times 100
\]  
(Eq. 1)

where:

\( \bar{d} \) = Mean difference between CEMS response and the known reference concentration.

2.2.8 Reporting

At a minimum, summarize in tabular form the results of the CD, response time, and CE test, as appropriate. Include all data sheets, calculations, CEMS data records, and cylinder gas or reference material certifications.
2.2.9 Quality Assurance (QA)

Proper calibration, maintenance, and operation of the CEMS is the responsibility of the owner or operator. The owner or operator must establish a QA program to evaluate and monitor CEMS performance. As a minimum, the QA program must include:

2.2.9.1 A daily calibration check for each monitor. The calibration must be adjusted if the check indicates the instrument’s CD exceeds 3 ppm. The gases shall be injected as close to the probe as possible to provide a check of the entire sampling system. If an alternative calibration procedure is desired (e.g., direct injections or gas cells), subject to Administrator approval, the adequacy of this alternative procedure may be demonstrated during the initial 7-day CD test. Periodic comparisons of the two procedures are suggested.

2.2.9.2 A daily system audit. The audit must include a review of the calibration
check data, an inspection of the recording system, an inspection of the control panel warning lights, and an inspection of the sample transport and interface system (e.g., flowmeters, filters), as appropriate.

2.2.9.3 A quarterly CE test. Quarterly RA tests may be substituted for the CE test when approved by the Director on a case-by-case basis.

2.2.9.4 An annual performance specification test.

2.2.10 Alternative Measurement Technique

The regulations allow gas conditioning systems to be used in conjunction with unheated HC CEMs during an interim period. This gas conditioning may include cooling to not less than 40 °F and the use of condensate traps to reduce the moisture content of sample gas entering the FID to less than 2 percent. The gas conditioning system, however, must not allow the sample gas to bubble through the condensate as this would remove water soluble organic compounds. All components upstream of the conditioning system should be heated as described in section 2.2.4 to minimize operating and maintenance problems.

2.2.11 References


SECTION 3.0 SAMPLING AND ANALYTICAL METHODS


SECTION 4.0 PROCEDURE FOR ESTIMATING THE TOXICITY EQUIVALENCE OF CHLORINATED DIBENZO-P-DIOXIN AND DIBENZOFLUORAN CONGENERS

PCDDs and PCDFs must be determined using whichever is the most recent version between of SW–846 Method 0023A (incorporated by reference, in §260.11) as identified, or OAQPS Method 23 of appendix A to part 60. In this method, individual congeners or homologues are measured and then summed to yield a total PCDD/PCDF value. No toxicity factors are specified in the method to compute risks from such emissions.

For the purpose of estimating risks posed by emissions from boilers and industrial furnaces, however, specific congeners and homologues must be measured using the specified method and then multiplied by the assigned toxicity equivalence factors (TEFs), using procedures described in “Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Dibenzo fluorans (CDDs and CDFs) and 1989 Update,” EPA–625–3–89–016, March 1989. The resulting 2,3,7,8–TCDD equivalents value is used in the subsequent risk calculations and modeling efforts as discussed in the BIF final rule.

The procedure for calculating the 2,3,7,8–TCDD equivalent is as follows:

1. Using method 23, determine the concentrations of 2,7,8–congeners of various PCDDs and PCDFs in the sample.
2. Multiply the congener concentrations in the sample by the TEF listed in Table 4.0–1 to express the congener concentrations in terms of 2,3,7,8–TCDD equivalent. Note that congeners not chlorinated at 2,3,7, and 8 positions have a zero toxicity factor in this table.
3. Add the products obtained in step 2, to obtain the total 2,3,7,8–TCDD equivalent in the sample.

Sample calculations are provided in EPA document No. EPA–625–3–89–016, March 1989, which can be obtained from the EPA, ORD Publications Office, Cincinnati, Ohio (Phone no. 513–569–7502).

TABLE 4.0–1—2,3,7,8–TCDD TOXICITY EQUIVALENCE FACTORS (TEFS)

<table>
<thead>
<tr>
<th>Compound</th>
<th>I-TEFs, 89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono, Di, and TriCDDs</td>
<td>0</td>
</tr>
<tr>
<td>2,3,7,8–TCDD</td>
<td>1</td>
</tr>
<tr>
<td>Other TCDDs</td>
<td>0</td>
</tr>
<tr>
<td>2,3,7,8–PeCDD</td>
<td>0.5</td>
</tr>
<tr>
<td>Other PeCDDs</td>
<td>0</td>
</tr>
<tr>
<td>2,3,7,8–HeCDD</td>
<td>0.1</td>
</tr>
<tr>
<td>Other HeCDDs</td>
<td>0</td>
</tr>
</tbody>
</table>

1 The term “congener” refers to any one particular member of the same chemical family; e.g., there are 75 congeners of chlorinated dibenzo-p-dioxins. The term “homologue” refers to a group of structurally related chemicals that have the same degree of chlorination. For example, there are eight homologues of CDs, monochlorinated through octachlorinated. Dibenzo-p-dioxins and dibenzofurans that are chlorinated at the 2,3,7, and 8 positions are denoted as “2378” congeners, except when 2,3,7,8–TCDD is uniquely referred to: e.g., 1,2,3,7,8–PeCDF and 2,3,4,7,8–PeCDF are both referred to as “2378–PeCDFs.”
TABLE 4.0–1—2,3,7,8–TCDD TOXICITY
EQUIVALENCE FACTORS (TEFS) 1—Continued

<table>
<thead>
<tr>
<th>Compound</th>
<th>TEFS, 89</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,3,7,8–HpCDD</td>
<td>0.01</td>
</tr>
<tr>
<td>Other HpCDDs</td>
<td>0</td>
</tr>
<tr>
<td>OCDD</td>
<td>0.001</td>
</tr>
<tr>
<td>Mono-, Di-, and TriCDFs</td>
<td>0</td>
</tr>
<tr>
<td>2,3,7,8–TCDF</td>
<td>0.1</td>
</tr>
<tr>
<td>Other TCDFs</td>
<td>0</td>
</tr>
<tr>
<td>1,2,3,7,8–PeCDF</td>
<td>0.05</td>
</tr>
<tr>
<td>2,3,4,7,8–PeCDF</td>
<td>0.5</td>
</tr>
<tr>
<td>Other PeCDFs</td>
<td>0</td>
</tr>
<tr>
<td>2378–HxCDFs</td>
<td>0.1</td>
</tr>
<tr>
<td>Other HxCDFs</td>
<td>0</td>
</tr>
<tr>
<td>2378–HpCDFs</td>
<td>0.01</td>
</tr>
<tr>
<td>Other HpCDFs</td>
<td>0</td>
</tr>
<tr>
<td>OCDF</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Reference: Adapted from NATO/CCMS, 1988a.  

SECTION 5.0 HAZARDOUS WASTE COMBUSTION
AIR QUALITY SCREENING PROCEDURE

The HWCAQSP is a combined calculation/reference table approach for conservatively estimating short-term and annual average facility impacts for stack emissions. The procedure is based on extensive short-term modeling of 11 generic source types and on a set of adjustment factors for estimating annual average concentrations from short-term concentrations. Facility impacts may be determined based on the selected worst-case stack or on multiple stacks, in which the impacts from each stack are estimated separately and then added to produce the total facility impact.

This procedure is most useful for facilities with multiple stacks, large source-to-property boundary distances, and complex terrain. To ensure a sufficient degree of conservatism, the HWCAQSP may not be used if any of the five screening procedure limitations listed below are true:

- The facility is located in a narrow valley less than 1 km wide;
- The facility has a stack taller than 20 m and is located such that the terrain rises to the stack height within 1 km of the facility;
- The facility has a stack taller than 20 m and is located within 5 km of the shoreline of a large body of water;
- The facility property line is within 200 m of the stack and the physical stack height is less than 10 m; or
- On-site receptors are of concern, and stack height is less than 10 m.

If any of these criteria are met or the Director determines that this procedure is not appropriate, then detailed site-specific modeling or modeling using the “Screening Procedures for Estimating the Air Quality Impact of Stationary Sources,” EPA –450/4–89–000, Office of Air Quality Planning and Standards, August 1988, is required. Detailed site-specific dispersion modeling must conform to the EPA “Guidance on Air Quality Models (Revised),” EPA 450–2–78–02TR, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, July 1986. This document provides guidance on both the proper selection and regulatory application of air quality models.

Introduction

The Hazardous Waste Combustion Air Quality Screening Procedure (HWCAQSP) (also referred to hereafter as “the screening procedure” or “the procedure”) provides a quick, easy method for estimating maximum (hourly) and annual average ambient air impacts associated with the combustion of hazardous waste. The methodology is conservative in nature and estimates dispersion coefficients1 based on facility-specific information.

The screening procedure can be used to determine emissions limits at sites where the nearest meteorological (STAR) station is not representative of the meteorology at the site. If the screen shows that emissions from the site are adequately protective, then the need to collect site-specific meteorological data can be eliminated.

The screening procedure is generally most helpful for facilities meeting one or more of the following conditions:

- Multiple stacks with substantially different release specifications (e.g., stack heights differ by >50 percent, exit temperatures differ by >50° K, or the exit flow rates differ by more than a factor of 2);
- Terrain located between 1 km and 5 km from the site increases in elevation by more than the physical height of the shortest stack (i.e., the facility is located in complex terrain);
- Significant distance between the facility’s stacks and the site boundary (guidance on determining whether a distance is “significant” is provided in Step 6B of the procedure).

Steps 1 through 9 of the screening procedure present a simplified method for determining emissions based on the use of the “worst-case” stack. If the simplified method shows that desired feed rates result in emissions that exceed allowable limits for one or more pollutants, a refined analysis to examine the emissions from each stack can be conducted. This multiple-stack method is presented in Step 10.

The steps involved in screening methodology are as follows:

Step 1. Define Source Characteristics

1The term dispersion coefficient refers to the change in ambient air concentration (g/m³) resulting from a source with an emission rate of 1 g/sec.
Environmental Protection Agency

Step 2. Determine the Applicability of the Screening Procedure
Step 3. Select the Worst-Case Stack
Step 4. Verify Good Engineering Practice (GEP) Criteria
Step 5. Determine the Effective Stack Height and Terrain-Adjusted Effective Stack Height
Step 6. Classify the Site as Urban or Rural
Step 7. Determine Maximum Dispersion Coefficients
Step 8. Estimate Maximum Ambient Air Concentrations
Step 9. Determine Compliance With Regulatory Limits
Step 10. Multiple Stack Method

Step 1: Define Source Characteristics
Provide the following source data:

<table>
<thead>
<tr>
<th>Stack Data</th>
<th>Stack No. 1</th>
<th>Stack No. 2</th>
<th>Stack No. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical stack height (m)</td>
<td>...............</td>
<td>...............</td>
<td>...............</td>
</tr>
<tr>
<td>Exhaust temperature (°K)</td>
<td>...............</td>
<td>...............</td>
<td>...............</td>
</tr>
<tr>
<td>Flow rate (m³/sec)</td>
<td>...............</td>
<td>...............</td>
<td>...............</td>
</tr>
</tbody>
</table>

Nearby Building Dimensions
Consider all buildings within five building heights or five maximum projected widths of the stack(s). For the building with the greatest height, fill in the spaces below.

Building Height (m) __________
Maximum projected building width (m) __________

Nearby Terrain Data
Determine maximum terrain rise for the following three distance ranges from the facility (not required if the highest stack is less than 10 m in height):

<table>
<thead>
<tr>
<th>Distance from facility to nearest shoreline (km)</th>
<th>0-0.5 km</th>
<th>0-2.5 km</th>
<th>0-5 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley width (km)</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>

Step 2: Determine the Applicability of the Screening Procedure
Fill in the following data:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the facility in a valley &lt; km in width?</td>
<td>__________</td>
</tr>
<tr>
<td>Is the terrain rise within 1 km of the facility greater than the physical stack height of the tallest stack? (Only applies to stacks ≤20 meters in height)</td>
<td>__________</td>
</tr>
<tr>
<td>Is the distance to the nearest shoreline &lt;5 km? (Only applies to facilities with stacks ≤20 meters in height)</td>
<td>__________</td>
</tr>
<tr>
<td>Is the closest property boundary &lt;5 times the building height or &lt;5 times the maximum projected building width? (Only applies to facilities with a stack height &lt;2.5 times the building height)</td>
<td>__________</td>
</tr>
</tbody>
</table>

If the answer is “no” to all the preceding questions, then the HWCAQSP is acceptable. If the answer to any question is “yes”, the procedure is not acceptable.

Step 3: Select the Worst-Case Stack
If the facility has several stacks, a worst-case stack must be chosen to conservatively represent release conditions at the facility. Follow the steps below to identify the worst-case stack:

Apply the following equation to each stack:

\[ K = \frac{H \times V \times T}{1000} \]

where:

\[ K \] = an arbitrary parameter accounting for the relative influence of the stack height and plume rise.
\[ H \] = Physical stack height (m)
\[ V \] = Flow rate (m³/sec)
\[ T \] = Exhaust temperature (°K)

Complete the following table to compute the “K” value for each stack:

<table>
<thead>
<tr>
<th>Stack No.</th>
<th>Stack height (m)</th>
<th>Flow rate (m³/sec)</th>
<th>Exit temp (°K)</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ....</td>
<td>........</td>
<td>x</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>2 ....</td>
<td>........</td>
<td>x</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>3 ....</td>
<td>x</td>
<td>x</td>
<td></td>
<td>=</td>
</tr>
</tbody>
</table>

2Worksheet space is provided for three stacks. If the facility has additional stacks, copy the form and revise stack identification numbers for 4, 5, etc.
Select the stack with the lowest “K” value. This is the worst-case stack that will be used for Steps 4 through 9.

Worst-Case Stack is identified as Stack No. ___

Step 4: Verify Good Engineering Practice (GEP) Criteria

Confirm that the selected worst-case stack meets Good Engineering Practice (GEP) criteria. The stack height to be used in the subsequent steps of this procedure must not be greater than the maximum GEP. Maximum and minimum GEP stack heights are defined as follows:

GEP (minimum) = H + (1.5 × L)
GEP (maximum) = greater of 65 m or H + (1.5 × L)

where:

H = height of the building selected in Step 1 measured from ground level elevation at the base of the stack
L = the lesser dimension of the height or projected width of the building selected in Step 1

Record the following data for the worst-case stack:

Stack height (m) = ________
H (m) = ________
L (m) = ________

Then compute the following:

GEP (minimum) (m) = ________
GEP (maximum) (m) = ________

- If the physical height of the worst-case stack exceeds the maximum GEP, then use the maximum GEP stack height for the subsequent steps of this analysis;
- If the physical height of the worst-case stack is less than the minimum GEP, then use generic source number 11 as the selected source for further analysis and proceed directly to Step 6;
- If the physical height of the worst-case stack is between the minimum and maximum GEP, then use the actual physical stack height for the subsequent steps of this analysis.

Step 5: Determine the Effective Stack Height and the Terrain-Adjusted Effective Stack Height (TAESH)

The effective stack height is an important factor in dispersion modeling. The effective stack height is the physical height of the stack plus plume rise. As specified in Step 4, the stack height used to estimate the effective stack height must not exceed GEP requirements. Plume rise is a function of the stack exit gas temperature and flow rate.

In this analysis, the effective stack height is used to select the generic source that represents the dispersion characteristics of the facility. For facilities located in flat terrain and for all facilities with worst-case stacks less than or equal to 10 meters in height, generic source numbers are selected strictly on the basis of effective stack height. In all other cases, the effective stack height is further adjusted to take into account the terrain rise near the facility. This “terrain-adjusted effective stack height” (TAESH) is then used to select the generic source number that represents the dispersion characteristics of the facility. Follow the steps below to identify the effective stack height, the TAESH (where applicable), and the corresponding generic source number.

(A) Go to Table 5.0–1 and find the plume rise value corresponding to the stack temperature and exit flow rate for the worst-case stack determined in Step 3.

Plume rise = ________ (m)

(B) Add the plume rise to the GEP stack height of the worst-case stack determined in Steps 3 and 4.

GEP stack height (m) + Plume rise (m) = Effective stack height (m)

(C) Go to the first column of Table 5.0–2 and identify the range of effective stack heights that includes the effective stack height estimated in Step 5(B). Record the generic source number that corresponds to this range.

Generic source number = ________

(D) If the source is located in flat terrain, or if the generic source number identified in Step 5(C) above is 1 or 11 (regardless of terrain classification), use the generic source number determined in Step 5(C) and proceed directly to Step 6. Otherwise, continue to Step 5(E).

(E) For those situations where the conditions in Step 5(D) do not apply, the effective stack height must be adjusted for terrain. The TAESH for each distance range is computed by subtracting the terrain rise within the distance range from the effective stack height.

3The terrain is considered flat and terrain adjustment factors are not used if the maximum terrain rise within 5 km of the facility (see Step 1) is less than 10 percent of the physical stack height of the worst-case stack.

4Refer to Step 1 for terrain adjustment data. Note that the distance from the source to the outer radii of each range is used. For example, for the range 0.0-2.5 km, the maximum terrain rise in the range 0.0-2.5 km is used.
TABLE 5.0–1—ESTIMATED PLUME RISE (IN METERS) BASED ON STACK EXIT FLOW RATE AND GAS TEMPERATURE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<td>&lt;0.5</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
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<td>1.0–2.9</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<td>0</td>
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<td>3</td>
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<td>8</td>
<td>9</td>
<td>9</td>
</tr>
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<td>3.0–4.9</td>
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<td>7</td>
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<td>10</td>
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<td>13</td>
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<td>19</td>
<td>21</td>
</tr>
<tr>
<td>7.5–9.9</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>15</td>
<td>17</td>
<td>20</td>
<td>22</td>
<td>23</td>
<td>25</td>
<td>27</td>
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<td>10.0–12.4</td>
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<td>6</td>
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<td>23</td>
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<td>27</td>
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<td>24</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
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</tr>
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<td>60.0–69.9</td>
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<td>30</td>
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<td>49</td>
<td>51</td>
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</tr>
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<td>53</td>
<td>55</td>
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<td>140.0–159.9</td>
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<td>51</td>
<td>55</td>
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<td>59</td>
<td>62</td>
<td>65</td>
</tr>
<tr>
<td>160.0–179.9</td>
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<td>38</td>
<td>46</td>
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<td>54</td>
<td>58</td>
<td>60</td>
<td>62</td>
<td>65</td>
<td>67</td>
</tr>
<tr>
<td>180.0–199.9</td>
<td>26</td>
<td>32</td>
<td>40</td>
<td>48</td>
<td>52</td>
<td>56</td>
<td>60</td>
<td>63</td>
<td>65</td>
<td>67</td>
<td>70</td>
</tr>
<tr>
<td>&gt;199.9</td>
<td>26</td>
<td>33</td>
<td>41</td>
<td>49</td>
<td>54</td>
<td>58</td>
<td>62</td>
<td>65</td>
<td>67</td>
<td>69</td>
<td>73</td>
</tr>
</tbody>
</table>

TABLE 5.0–2—SELECTION OF GENERIC SOURCE NUMBER

<table>
<thead>
<tr>
<th>Effective stack height (m)</th>
<th>Generic source No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10.0</td>
<td>1</td>
</tr>
<tr>
<td>10.0–14.9</td>
<td>2</td>
</tr>
<tr>
<td>15.0–19.9</td>
<td>3</td>
</tr>
<tr>
<td>20.0–24.9</td>
<td>4</td>
</tr>
<tr>
<td>25.0–30.9</td>
<td>5</td>
</tr>
<tr>
<td>31.0–41.9</td>
<td>6</td>
</tr>
<tr>
<td>42.0–52.9</td>
<td>7</td>
</tr>
<tr>
<td>53.0–64.9</td>
<td>8</td>
</tr>
<tr>
<td>65.0–122.9</td>
<td>9</td>
</tr>
<tr>
<td>113.0</td>
<td>10</td>
</tr>
<tr>
<td>Downwash</td>
<td>11</td>
</tr>
</tbody>
</table>

TABLE 5.0–3—CLASSIFICATION OF LAND USE TYPES—Continued

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Urban or rural designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Commercial</td>
<td>Urban</td>
</tr>
<tr>
<td>T2</td>
<td>Common Residential (Normal Easements)</td>
<td>Rural</td>
</tr>
<tr>
<td>T3</td>
<td>Compact Residential (Single Family)</td>
<td>Urban</td>
</tr>
<tr>
<td>T4</td>
<td>Compact Residential (Multi-Family)</td>
<td>Rural</td>
</tr>
<tr>
<td>T5</td>
<td>Estate Residential (Multi-Acre Plots)</td>
<td>Rural</td>
</tr>
<tr>
<td>T6</td>
<td>Metropolitan Natural</td>
<td>Rural</td>
</tr>
<tr>
<td>T7</td>
<td>Agricultural</td>
<td>Rural</td>
</tr>
<tr>
<td>T8</td>
<td>Undeveloped (Grasses/Weeds)</td>
<td>Rural</td>
</tr>
<tr>
<td>T9</td>
<td>Undeveloped (Heavily Wooded)</td>
<td>Rural</td>
</tr>
<tr>
<td>T10</td>
<td>Water Surfaces</td>
<td>Rural</td>
</tr>
</tbody>
</table>

Distance range (km) Effective stack—height (m) Number

If the terrain rise for any of the distance ranges is greater than the effective stack height, set the TAESH equal to zero and use
generic source number 1 for that distance range.

Record the generic source numbers from Table 5.0–2 based on each of the TAESH values.

<table>
<thead>
<tr>
<th>Distance range (km)</th>
<th>Generic source No. (after terrain adjustment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0–0.5</td>
<td></td>
</tr>
<tr>
<td>&gt;0.5–2.5</td>
<td></td>
</tr>
<tr>
<td>&gt;2.5–5.0</td>
<td></td>
</tr>
</tbody>
</table>

Step 6: Classify the Site as Urban or Rural

(A) Classify the land use near the facility as either urban or rural by determining the percentage of urban land use types (as defined in Table 3; for further guidance see the footnoted references) that fall within 3 km of the facility.5

Method   Visual   Planimeter

Used to   Estimate the Percent Urban Land Use:

Estimated Percentages:

If the urban land use percentage is less than or equal to 30 percent based on a visual estimate, or 50 percent based on a planimeter, the local land use is considered rural. Otherwise, the local land use is considered urban.

Classification:

(check applicable space).

(B) Based on the TAESH and the urban/rural classification of surrounding land use, use the following table to determine the threshold distance between any stack and the nearest facility boundary.

<table>
<thead>
<tr>
<th>Terrain adjusted effective stack height range (m)</th>
<th>Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>1–9.9</td>
<td>200 200</td>
</tr>
<tr>
<td>10–14.9</td>
<td>200 250</td>
</tr>
<tr>
<td>15–19.9</td>
<td>200 250</td>
</tr>
<tr>
<td>20–24.9</td>
<td>200 350</td>
</tr>
<tr>
<td>25–30.9</td>
<td>200 450</td>
</tr>
<tr>
<td>31–41.9</td>
<td>200 550</td>
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<td>42–55.9</td>
<td>250 800</td>
</tr>
<tr>
<td>56–64.9</td>
<td>300 1000</td>
</tr>
<tr>
<td>65–112.9</td>
<td>400 1200</td>
</tr>
<tr>
<td>113+</td>
<td>700 2500</td>
</tr>
</tbody>
</table>

Record the following information:

Threshold distance from the table (m):

Minimum distance from any stack to property boundary (m):

If the minimum distance between any stack and the nearest facility boundary is greater than the threshold distance, the surrounding buffer distance is considered significant and the facility is likely to benefit from use of the HWCAQSP relative to the Tier I and II limits (see discussion of benefits from using HWCAQSP in Introduction section).

Step 7: Determine Maximum Dispersion Coefficients

(A) Determine maximum average hourly dispersion coefficients. Based on the results of Step 6(A), select either Table 5.0–4 (urban) or Table 5.0–5 (rural) to determine the maximum average hourly dispersion coefficient.6 For flat terrain (defined in Step 5(D)) and for all sites with generic source numbers 1 or 11, use Step 7(A) (1). For rolling or complex terrain (excluding generic sources numbers 1 and 11), use Step 7(A) (2).

1. Search down the appropriate generic source number column (based on Step 5(C)), beginning at the minimum fence distance listed in Step 6(B).7 Record the maximum average hourly dispersion coefficient encountered.

Maximum Average Hourly Dispersion Coefficient = $\mu_g/m^3/g/sec$ (\(\mu\)=micrograms, \(g\) = grams, and \(m\) = meter)

2. For each of the three distance-based generic source numbers listed in Step 5(E), search down the appropriate generic source

---

5 The delineation of urban and rural areas can be difficult for the residential-type areas listed in Table 5.0–3. The degree of resolution in Table 5.0–3 for residential areas often cannot be identified without conducting site area inspections. This process can require extensive analysis, which, for many applications, can be greatly streamlined without sacrificing confidence in selecting the appropriate urban or rural classification. The fundamental simplifying assumption is based on the premise that many applications will have clear-cut urban/rural designations, i.e., most will be in rural settings that can be definitively characterized through a review of aerial photographs, zoning maps, or U.S. Geological Survey topographical maps.

6 For the distance range 6 to 20 kilometers, generic source number 1 is used to conservatively represent the maximum dispersion coefficient.

7 Exclude all distances that are closer to the facility than the property boundary. For example, if the actual distance to the nearest property boundary is 265 meters, begin at the 300 meter distance in Tables 5.0–4 and 5.0–5.
Environmental Protection Agency
Pt. 266, App. IX

Table 5.0–4 – ISCST Predicted Maximum Concentrations (μg/m³) for Hazardous Waste Combustors Using Urban Conditions

<table>
<thead>
<tr>
<th>Distance (KM)</th>
<th>Generic Source (10M)</th>
<th>Generic Source (15M)</th>
<th>Generic Source (20M)</th>
<th>Generic Source (25M)</th>
<th>Generic Source (31M)</th>
<th>Generic Source (42M)</th>
<th>Generic Source (65M)</th>
<th>Generic Source (113M)</th>
</tr>
</thead>
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<td>0.20</td>
<td>680.1</td>
<td>517.5</td>
<td>368.7</td>
<td>268.7</td>
<td>168.5</td>
<td>129.8</td>
<td>63.4</td>
<td>30.1</td>
</tr>
<tr>
<td>0.25</td>
<td>521.9</td>
<td>418.2</td>
<td>303.7</td>
<td>232.6</td>
<td>163.0</td>
<td>124.2</td>
<td>67.6</td>
<td>38.5</td>
</tr>
<tr>
<td>0.30</td>
<td>407.7</td>
<td>351.7</td>
<td>256.2</td>
<td>197.0</td>
<td>147.0</td>
<td>118.3</td>
<td>63.5</td>
<td>41.5</td>
</tr>
<tr>
<td>0.35</td>
<td>326.2</td>
<td>304.2</td>
<td>221.6</td>
<td>172.7</td>
<td>130.2</td>
<td>107.9</td>
<td>60.0</td>
<td>46.5</td>
</tr>
<tr>
<td>0.40</td>
<td>268.5</td>
<td>268.5</td>
<td>195.6</td>
<td>152.5</td>
<td>115.7</td>
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*Based on a 1 Gram/Second Emission Rate
### Table 5.0–5—ISCST Predicted Maximum Concentrations (µg/M³) for Hazardous Waste Combustors Using Rural Conditions

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<tr>
<th>Distance (KM)</th>
<th>Generic source #1 (&lt;10M)</th>
<th>Generic source #2 (10M)</th>
<th>Generic source #3 (25M)</th>
<th>Generic source #4 (50M)</th>
<th>Generic source #5 (75M)</th>
<th>Generic source #6 (100M)</th>
<th>Generic source #7 (20M)</th>
<th>Generic source #8 (25M)</th>
<th>Generic source #9 (37M)</th>
<th>Generic source #10 (50M)</th>
<th>Generic source #11 (Downwash)</th>
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</table>

#### Notes:

- **(A)** Based on a 1 Gram/Second Emission Rate

- **(B)** Determine annual/hourly ratio for rural analysis. The maximum average annual dispersion coefficient is approximated by multiplying the maximum hourly dispersion coefficient (identified in Step 7(A)) by the appropriate ratio selection from Table 5.0-6. The generic source number(s) (from Steps 5(C) or 5(E)), urban/rural designation (from Step 6), and the terrain type are used to select the appropriate scaling factor. Use the noncomplex terrain designation for all sources located in flat terrain, for all sources where the physical stack height of the worst-case stack is less than or equal to 10 m, for all sources where the worst-case stack is less than the minimum GEP, and for those sources where all of the TAESt values in Step 5(E) are greater than zero. Use the complex terrain designation in all other situations.

- **(C)** Determine maximum average annual dispersion coefficient. The maximum average annual dispersion coefficient is determined by multiplying the maximum hourly dispersion coefficient (Step 7(A)) by its corresponding annual/hourly ratio (Step 7(B)).
Step 8: Estimate Maximum Ambient Air Concentrations—see procedures prescribed in subpart H of 40 CFR part 266.

Step 9: Determine Compliance with Regulatory Limits—see procedures prescribed in subpart H of 40 CFR part 266.

Step 10: Multiple Stack Method (Optional)
This option is a special case procedure that may be helpful when (1) the facility exceeded the regulatory limits for one or more pollutants, as detailed in Step 9, and (2) the facility has multiple stacks with substantially different emission rates and effective release heights. Only those pollutants that fail the Step 9 screening limits need to be addressed in this exercise.

This procedure assesses the environmental impacts from each stack and then sums the results to estimate total impacts. This option is conceptually the same as the basic approach (Steps 1 through 9) and does not involve complex calculations. However, it is more time-consuming and is recommended only if the basic approach fails to meet the risk criteria. The procedure is outlined below.

(A) Compute effective stack heights for each stack.

(B) Determine if this multiple-stack screening procedure will likely produce less conservative results than the procedure in Steps 1 through 9. To do this, compute the ratio of maximum-to-minimum effective stack height:

\[
\frac{\text{Maximum Effective Stack Height}}{\text{Minimum Effective Stack Height}} = \frac{\text{Shortest Stack Height (m)}}{\text{Terrain Rise m}} \times 100 = \% \]

If the value above is greater than 10 percent, the terrain is considered nonflat; proceed to Step 10(D). If the ratio is less than or equal to 10 percent, the terrain is considered flat. Identify the generic source numbers based on effective stack heights computed in Step 10(A). Refer to Table 5.0–2 provided earlier to identify generic source numbers. Record the generic source numbers identified and proceed to Step 10(F).

(C) Determine if terrain adjustment is needed and select generic source numbers. Select the shortest stack height and maximum terrain rise out to 5 km from Step 1 and determine if the facility is in flat terrain. Only those pollutants that fail the Step 9 screening limits need to be addressed in this exercise.

This procedure assesses the environmental impacts from each stack and then sums the results to estimate total impacts. This option is conceptually the same as the basic approach (Steps 1 through 9) and does not involve complex calculations. However, it is more time-consuming and is recommended only if the basic approach fails to meet the risk criteria. The procedure is outlined below.

Add an additional page if more than three stacks are involved. Circle the maximum and minimum effective stack heights.

Environmental Protection Agency
Pt. 266, App. IX

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Distance from stack (m)</th>
<th>Generic source No.</th>
<th>Maximum hourly dispersion coefficient (&gt;g/m³/g/sec)</th>
<th>Annual hour-ly ratio</th>
<th>Maximum annual dispersion coefficient (&gt;g/m³/g/sec)¹</th>
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<td>≤0.5</td>
<td>≤0.5–2.5</td>
<td>≤2.5–6.0</td>
<td>≤5.0–20.0</td>
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</tbody>
</table>

¹Maximum hourly dispersion coefficient times annual/hourly ratio.
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40 CFR Ch. I (7–1–12 Edition)

(D) Compute the TAESH and select generic source numbers (four sources located in nonflat terrain).

USE THE TABLE BELOW TO CALCULATE THE TAESH FOR EACH STACK

<table>
<thead>
<tr>
<th>Stack No.</th>
<th>Stack No.</th>
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<table>
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<th>Distance Range (km)</th>
<th>Stack No.</th>
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<tr>
<td></td>
<td>HE – TR = TAESH</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>3</td>
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</table>

Refer to Step 1 for terrain adjustment data. Note that the distance from the source to the outer radii of each range is used. For example, for the range >0.5–2.5 km, the maximum terrain rise in the range 0.0–2.5 km is used.

For those stacks where the terrain rise within a distance range is greater than the effective stack height (i.e., HE–TR is less than zero), the TAESH for that distance range is set equal to zero, and generic source number 1 should be used for that distance range for all subsequent distance ranges. Additionally, for all stacks with a physical stack height of less than or equal to 10 meters, use generic source number 1 for all distance ranges.10 For the remaining stacks, proceed to Step 10(D)(2).

2. For the remaining stacks, refer to Table 5.0–2 and, for each distance range, identify the generic source number that includes the TAESH. Use the values obtained from Steps 10(D)(1) and 10(D)(2) to complete the following summary worksheet:

<table>
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<th>0–0.5 km</th>
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<th>&gt;2.5–5.0 km</th>
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<tr>
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<td></td>
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</table>

(E) Identify maximum average hourly dispersion coefficients. Based on the land use classification of the site (e.g., urban or rural), use either Table 5.0–4 or Table 5.0–5 to determine the appropriate dispersion coefficient for each distance range for each stack. Begin at the minimum fence line distance indicated in Step 7(B) and record on Worksheet 5.0–1 the dispersion coefficient for each stack/distance range. For stacks located in facilities in flat terrain, the generic source numbers were computed in Step 10(C). For stacks located in facilities in rolling and complex terrain, the generic source numbers were computed in Step 10(D). For flat terrain applications and for stacks with a physical height of less than or equal to 10 meters, only one generic source number is used per stack for all distance ranges. For other situations up to three generic source numbers may be needed per stack (i.e., a unique generic source number per distance range). In Tables 5.0–4 and 5.0–5, the dispersion coefficients for distances of 6 km to 20 km are the same for all generic source numbers in order to conservatively represent terrain beyond 5 km (past the limits of the terrain analysis).
(F) Estimate maximum hourly ambient air concentrations. In this step, pollutant-specific emission rates are multiplied by appropriate dispersion coefficients to estimate ambient air concentrations. For each stack, emissions are multiplied by the dispersion coefficient selected in Step 10(E) and summed across all stacks to estimate ambient air concentrations at various distances from the facility. From these summed concentrations, the maximum hourly ambient air concentration is selected. First, select

<table>
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<th>Distance</th>
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<th>Stack 3</th>
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<td>20.00</td>
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</tbody>
</table>

Note: This procedure places all stacks at the same point, but allows for consideration of different effective stack heights. The distance to the closest boundary (extracted from Step 1) should be the closest distance to any stack.
the maximum emission rate of the pollutant.\textsuperscript{11} Record these data in the spaces provided below.\textsuperscript{12}

\textsuperscript{11}Recall that it is recommended that this analysis be performed for only one or two pollutants. The pollutants chosen for this analysis should be those that show the most significant exceedances of the risk threshold.

\textsuperscript{12}Refer to Step 8 of the basic screening procedure. At this point in the screening procedure, annual emissions are used to represent hourly average emission rates. These values will be adjusted by the annual/hourly ratio to estimate annual average concentrations.

Complete a separate copy of Worksheet 5.0-2 for each pollutant and select the highest hourly concentration from the summation column at the far right of the worksheet. Record the maximum hourly air concentration for each pollutant analyzed (add additional lines if needed):

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Maximum hourly air concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
## Worksheet 5.0-2 Maximum Hourly Ambient Air Concentration

<table>
<thead>
<tr>
<th>Total Distance (km)</th>
<th>Stack 1 ER x DC = C</th>
<th>Stack 2 ER x DC = C</th>
<th>Stack 3 ER x DC = C</th>
<th>Summed Concentration from all Stacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.20</td>
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**Notes:**
- ER = Annual Average Emission Rate
- DC = Hourly Dispersion Coefficient (from Worksheet 5.0-1)
- C = Estimated Maximum Hourly Ambient Air Concentration
### Worksheet 5.0-2 Maximum Hourly Ambient Air Concentration

<table>
<thead>
<tr>
<th>Total Distance (km)</th>
<th>Stack 1 ER x DC = C</th>
<th>Stack 2 ER x DC = C</th>
<th>Stack 3 ER x DC = C</th>
<th>Summed Concentration from all Stacks</th>
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</tbody>
</table>

**ER** = Annual Average Emission Rate  
**DC** = Hourly Dispersion Coefficient (from Worksheet 5.0-1)  
**C** = Estimated Maximum Hourly Ambient Air Concentration
(G) Determine the complex/noncomplex designation for each stack. For each stack, subtract the maximum terrain rise within 5 km of the site from the physical stack height and designate the stack as either complex or noncomplex. If the stack height minus the maximum terrain rise (within 5 km) is greater than zero or if the stack is less than 10 meters in physical height, then assign the stack a noncomplex designation. If the stack height minus the maximum terrain rise (within 5 km) is less than or equal to zero, then assign the stack a complex designation.

---

Worksheet 5.0-2 Maximum Ambient Air Concentration

<table>
<thead>
<tr>
<th>Total Distance (km)</th>
<th>Stack 1 ER x DC = C</th>
<th>Stack 2 ER x DC = C</th>
<th>Stack 3 ER x DC = C</th>
<th>Summed Concentration from all Stacks</th>
</tr>
</thead>
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<tr>
<td>20.00</td>
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</tr>
</tbody>
</table>

ER = Annual average emission rate
DC = Hourly dispersion coefficient (from Worksheet 1)
C = Estimated maximum hourly ambient air concentration

Environmental Protection Agency
Pt. 266, App. IX
Perform the following computation for each stack and record the information in the spaces provided. Check in the spaces provided whether the stack designation is complex or noncomplex.

<table>
<thead>
<tr>
<th>Stack No.</th>
<th>Stack height (m)</th>
<th>Maximum terrain rise (m)</th>
<th>Complex</th>
<th>Noncomplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

(H) Identify annual/hourly ratios. Extract the annual/hourly ratios for each stack by referring to Table 5.0-6. Generic source numbers (from Steps 10(C) or 10(D), urban/rural designation (from Step 6), and complex or noncomplex terrain designations (from Step 10(G)) are used to select the appropriate scaling factor needed to convert hourly maximum concentrations to estimates of annual average concentrations. Complete the following table:

<table>
<thead>
<tr>
<th>Stack No.</th>
<th>Generic source No. steps 10 (C or D)</th>
<th>Annual/hourly ratio (from table 5.0-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Distance ranges (km)</td>
<td>Distance ranges (km)</td>
</tr>
<tr>
<td></td>
<td>0–0.5</td>
<td>&gt;0.5–2.5</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(I) Select the highest annual/hourly ratio among all of the stacks, and then estimate the maximum annual average ambient air concentrations for each pollutant by completing the following table, where:

\[ C = \text{Maximum total hourly ambient air concentration (\(\mu g/m^3\)) for pollutant \(\text{``N''}\) from Step 10(F)}, \]

\[ C_a = \text{Maximum annual average air concentration for pollutant \(\text{``N''}\) (\(\mu g/m^3\))}, \]

\[ R = \text{Annual/hourly ratio}. \]

TABLE 5.0–6—95TH PERCENTILE OF ANNUAL/HOURLY RATIOS

<table>
<thead>
<tr>
<th>Source</th>
<th>Complex Terrain</th>
<th>Noncomplex Terrain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>1</td>
<td>0.019</td>
<td>0.014</td>
</tr>
<tr>
<td>2</td>
<td>0.033</td>
<td>0.019</td>
</tr>
<tr>
<td>3</td>
<td>0.031</td>
<td>0.018</td>
</tr>
<tr>
<td>4</td>
<td>0.029</td>
<td>0.017</td>
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<td>5</td>
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<td>0.017</td>
</tr>
<tr>
<td>6</td>
<td>0.028</td>
<td>0.017</td>
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<td>7</td>
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<td>0.015</td>
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<td>8</td>
<td>0.029</td>
<td>0.011</td>
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<tr>
<td>9</td>
<td>0.029</td>
<td>0.008</td>
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<tr>
<td>10</td>
<td>0.029</td>
<td>0.008</td>
</tr>
<tr>
<td>11</td>
<td>0.018</td>
<td>0.015</td>
</tr>
</tbody>
</table>

Pollutant \(C(\mu g/m^3) \times R = C_a(\mu g/m^3)\)

(J) Use the maximum annual average concentrations from Step 10(I) to determine compliance with regulatory requirements.

13 If any stack (excluding generic stack number 1 and 11) in Step 10(D) shows a negative terrain adjusted stack height, use the complex terrain annual/hourly ratios.

14 As an option, the user can identify the stack with the highest ratio for each distance range (rather than the absolute highest). In this case, extra sheets would be needed to show estimated annual average concentrations from each stack by multiplying emission rate times maximum hourly dispersion coefficient times maximum annual/hourly ratio for applicable distance range. Then sum across all stacks for each downwind distance.
This section provides a simplified procedure to classify areas in the vicinity of boilers and industrial furnace sites as urban or rural in order to set risk-based emission limits under subpart H of 40 CFR part 266. Urban/rural classification is needed because dispersion rates differ between urban and rural areas and thus, the risk per unit emission rate differs accordingly. The combination of greater surface roughness (more buildings/structures to generate turbulent mixing) and the greater amount of heat released from the surface in an urban area (generates buoyancy-induced mixing) produces greater rates of dispersion. The emission limit tables in the regulation, therefore, distinguish between urban and rural areas.

EPA guidance (EPA 1986) provides two alternative procedures to determine whether the character of an area is predominantly urban or rural. One procedure is based on land use typing and the other is based on population density. Both procedures require consideration of characteristics within a 3-km radius from a source, in this case the facility stack(s). The land use typing method is preferred because it more directly relates to the surface characteristics that affect dispersion rates. The remainder of this discussion, therefore, focuses on the land use method.

While the land use method is more direct, it can also be labor-intensive to apply. For this discussion, the land use method has been simplified so that it is consistent with EPA guidance (EPA 1986; Auer 1978), while streamlining the process for the majority of applications so that a clear-cut decision can be made without the need for detailed analysis. Table 6.0-1 summarizes the simplified approach for classifying areas as urban or rural. As shown, the applicant always has the option of applying standard (i.e., more detailed) analyses to more accurately distinguish between urban and rural areas. However, the procedure presented here allows for simplified determinations, where appropriate, to expedite the permitting process.

### Table 6.0-1—Classification of Land Use Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Urban or rural designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>Heavy Industrial</td>
<td>Urban.</td>
</tr>
<tr>
<td>I2</td>
<td>Light/Moderate Industrial</td>
<td>Urban.</td>
</tr>
<tr>
<td>C1</td>
<td>Commercial</td>
<td>Urban.</td>
</tr>
<tr>
<td>R1</td>
<td>Common Residential (Normal Easements)</td>
<td>Rural.</td>
</tr>
<tr>
<td>R2</td>
<td>Compact Residential (Single Family)</td>
<td>Urban.</td>
</tr>
</tbody>
</table>


#### 6.2 Simplified Land Use Process

The land use approach considers four primary land use types: industrial (I), commercial (C), residential (R), and agricultural (A). Within these primary classes, subclasses are identified, as shown in table 6.0-1. The goal is to estimate the percentage of the area within a 3-km radius that is urban type and the percentage that is rural type. Industrial and commercial areas are classified as urban; agricultural areas are classified as rural.

The delineation of urban and rural areas, however, can be more difficult for the residential type areas shown in table 6.0-1. The degree of resolution shown in table 6.0-1 for residential areas often cannot be identified without conducting site area inspections and/or referring to zoning maps. This process can require extensive analysis, which, for many applications, can be greatly streamlined without sacrificing confidence in selecting the appropriate urban or rural classification.

The fundamental simplifying assumption is based on the premise that many applications will have clear-cut urban/rural designations, i.e., most will be in rural settings that can be definitively characterized through a brief review of topographical maps. The color coding on USGS topographical maps provides the most effective means of simplifying the typing scheme. The suggested typing designations for the color codes found on topographical maps are as follows:

- **Green**: Developed areas (urban).
- **White**: White areas generally will be treated as rural. This code applies to areas that are wooded and do not have densely packed structures which would require the pink code (house omission tint). Parks, industrial areas, and unforested rural land will appear as white on the topographical maps. Of these categories, only the industrial areas could potentially be classified...
Industrial areas can be easily identified in most cases by the characteristics shown in Figure 6.0-1. For this simplified procedure, white areas that have an industrial classification will be treated as urban areas.
SECTION 7.0 STATISTICAL METHODOLOGY FOR BEVILL RESIDUE DETERMINATIONS

This section describes the statistical comparison of waste-derived residue to normal residue for use in determining eligibility for the Bevill exemption under 40 CFR 266.112.

7.1 Comparison of Waste-Derived Residue to Normal Residue

To be eligible for the Bevill exclusion from the definition of hazardous waste under 40 CFR 266.112(b)(1), waste-derived residue must not contain Appendix VIII, Part 261, constituents that could reasonably be attributable to the hazardous waste (toxic constituents) at concentrations significantly higher than in residue generated without burning or processing hazardous waste (normal residue). Concentrations of toxic constituents in normal residue are determined based on the analysis of a minimum of 10 samples representing a minimum of 10 days of operation. The statistically-derived concentrations in normal residue are determined as the upper tolerance limit (95% confidence and 95% proportion) of the normal residue concentrations. The upper tolerance limit is to be determined as described in Section 7.2 below. If changes in raw materials or fuels could lower the statistically-derived concentrations of toxic constituents of concern, the statistically-derived baseline must be re-established for any such mode of operation with the new raw material or fuel.

Concentrations of toxic constituents in waste-derived residue are determined based on the analysis of one or more samples collected over a composting period of not more than 24 hours. Multiple samples of the waste-derived residue may be analyzed or subsamples may be composited for analysis, provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize the waste-derived residue generated over a 24-hour period, the arithmetic mean of the concentrations must be used as the waste-derived concentration for each constituent.

The concentration of a toxic constituent in the waste-derived residue is not considered to be significantly higher than in the normal residue if the residue passes the Bevill test for that constituent. If the concentration in the waste-derived residue does not exceed the statistically-derived concentration.

7.2 Calculation of the Upper Tolerance Limit

The 95% confidence with 95% proportion of the sample distribution (upper tolerance limit) is calculated for a set of values assuming that the values are normally distributed. The upper tolerance limit is a one-sided calculation and is an appropriate statistical test for cases in which a single value (the waste-derived residue concentration) is compared to the distribution of a range of values (the minimum of 10 measurements of normal residue concentrations). The upper tolerance limit value is determined as follows:

\[ UTL = X + (K)(S) \]

where

\[ X = \text{mean of the normal residue concentrations}, \quad X = \frac{\sum_i X_i}{n}, \]

\[ K = \text{coefficient for sample size } n, \quad 95\% \text{ confidence and } 95\% \text{ proportion}, \]

\[ S = \text{standard deviation of the normal residue concentrations}, \quad S = \left( \frac{\sum_i (X_i - X)^2}{n - 1} \right)^{0.5}, \] and

\[ n = \text{sample size}. \]

The values of K at the 95% confidence and 95% proportion, and sample size n are given in Table 7.0-1. For example, a normal residue test results in 10 samples with the following analytical results for toxic constituent A:

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Concentration of constituent A (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

The mean and the standard deviation of these measurements, calculated using the above equations, are 11.5 and 2.9, respectively. Assuming that the values are normally distributed, the upper tolerance limit (UTL) is given by:

\[ UTL=11.5+(2.911)(2.9)=19.9 \text{ ppm} \]

Thus, if the concentration of constituent A in the waste-derived residue is below 19.9 ppm, then the waste-derived residue is eligible for the Bevill exclusion for constituent A.

7.3 NORMAL DISTRIBUTION ASSUMPTION

As noted in Section 7.2 above, this statistical approach (use of the upper tolerance limit) for calculation of the concentration in normal residue is based on the assumption that the concentration data are distributed normally. The Agency is aware that concentration data of this type may not always be distributed normally, particularly when concentrations are near the detection limits. There are a number of procedures that can be used to test the distribution of a data set. For example, the Shapiro-Wilk test, examination of a histogram or plot of the data on normal probability paper, and examination of the coefficient of skewness are methods that may be applicable, depending on the nature of the data (References 1 and 2).
If the concentration data are not adequately represented by a normal distribution, the data may be transformed to attain a near normal distribution. The Agency has found that concentration data, especially when near detection levels, often exhibit a lognormal distribution. The assumption of a lognormal distribution has been used in various programs at EPA, such as in the Office of Resource Conservation and Recovery Land Disposal Restrictions program for determination of BDAT treatment standards. The transformed data may be tested for normality using the procedures identified above. If the transformed data are better represented by a normal distribution than the untransformed data, the transformed data should be used in determining the upper tolerance limit using the procedures in Section 7.2 above.

In all cases where the owner or operator wishes to use other than an assumption of normally distributed data or believes that use of an alternate statistical approach is appropriate to the specific data set, he/she must provide supporting rationale in the operating record that demonstrates that the data treatment is based upon sound statistical practice.

7.4 Nondetect Values

The Agency is developing guidance regarding the treatment of nondetect values (data where the concentration of the constituent being measured is below the lowest concentration for which the analytical method is valid) in carrying out the statistical determination described above. Until the guidance information is available, facilities may present their own approach to the handling of nondetect data points, but must provide supporting rationale in the operating record for consideration by the Director.

Table 7.0–1—K Values for 95% Confidence and 95% Proportion

<table>
<thead>
<tr>
<th>Sample size (n)</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2.911</td>
</tr>
<tr>
<td>11</td>
<td>2.815</td>
</tr>
<tr>
<td>12</td>
<td>2.736</td>
</tr>
<tr>
<td>13</td>
<td>2.670</td>
</tr>
<tr>
<td>14</td>
<td>2.614</td>
</tr>
<tr>
<td>15</td>
<td>2.566</td>
</tr>
<tr>
<td>16</td>
<td>2.523</td>
</tr>
<tr>
<td>17</td>
<td>2.486</td>
</tr>
<tr>
<td>18</td>
<td>2.458</td>
</tr>
<tr>
<td>19</td>
<td>2.423</td>
</tr>
<tr>
<td>20</td>
<td>2.396</td>
</tr>
<tr>
<td>21</td>
<td>2.371</td>
</tr>
<tr>
<td>22</td>
<td>2.350</td>
</tr>
<tr>
<td>23</td>
<td>2.329</td>
</tr>
<tr>
<td>24</td>
<td>2.303</td>
</tr>
<tr>
<td>25</td>
<td>2.292</td>
</tr>
</tbody>
</table>

7.5 References


Section 8.0 Procedures for Determining Default Values for Air Pollution Control System Removal Efficiencies

During interim status, owners or operators of boilers and industrial furnaces burning hazardous waste must submit documentation to EPA that certifies that emissions of HCl, Cl₂, metals, and particulate matter (PM) are not likely to exceed allowable emission rates. See certification of precompliance under 40 CFR 266.103(b). This documentation also establishes interim status feed rate and operating limits for the facility. For the initial certification, estimates of emissions and system removal efficiencies (SREs) can be made to establish the operating limits. Subsequently, owners or operators must use emissions testing to demonstrate that emissions do not exceed allowable levels, and to establish operating limits. See 40 CFR 266.103(c). However, initial estimates of emissions for certification of precompliance can be based on estimated or established SREs.

The SRE combines the effect of partitioning of the chlorine, metals, or PM and the air pollution control system removal efficiency (APCS RE) for these pollutants. The SRE is defined as:

\[ SRE = \frac{\text{species input} - \text{species emitted}}{\text{species input}} \]

The SRE can be calculated from the partitioning factor (PF) and APCS RE by the following formula:

\[ SRE = 1 - \frac{(PF/100) \times (1 - \text{APCS RE}/100)}{1} \]

where:

PF=percentage of the pollutant partitioned to the combustion gas

Estimates of the PF and/or the APCS RE can be based on either EPA’s default values or engineering judgement. EPA’s default values for the APCS RE for metals, HCl, Cl₂, and PM are described in this section. EPA’s default values for partitioning of these pollutants are described in section 9.0.

Guidelines for the use of engineering judgement to estimate APCS REs or PFs are described in section 9.4.

8.1 APCS RE Default Values for Metals

EPA’s default assumptions for APCS RE for metals are shown in Table 8.1–1. The default values in the table are conservative estimates of the removal efficiencies for metals in BIFs, depending on the volatility of the metal and the type of APCS.

The volatility of a metal depends on the temperature, the thermal input, the chlorine
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content of the waste, and the identity and concentration of the metal. Metals that do not vaporize at combustion zone temperatures are classified as "nonvolatile". Such metals typically enter the APCS in the form of very fine, submicron particles that are rather inefficiently removed in many APCSs. Metals that vaporize in the combustion zone and condense before entering the APCS are classified as "volatile". Such metals enter the APCS in the form of a vapor that is very inefficiently removed in many APCSs.

Typically, BIFs have combustion zone temperatures high enough to vaporize any hazardous metal at concentrations sufficient to exceed risk-based emission limits. For this reason, the default assumption is that there are no nonvolatile metals. Tables 8.1–2 and 8.1–3 are used to determine whether metals are classified as "volatile" or "very volatile" depending on the temperature entering the APCS, the thermal input, and whether the waste is chlorinated or nonchlorinated.

**Table 8.1–1—Air Pollution Control Systems (APCS) and Their Conservatively Estimated Efficiencies for Controlling Toxic Metals (%)**

<table>
<thead>
<tr>
<th>APCS</th>
<th>Nonvolatile</th>
<th>Volatile</th>
<th>Very Volatile</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS</td>
<td>40</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>VS–20</td>
<td>80</td>
<td>75</td>
<td>20</td>
</tr>
<tr>
<td>VS–50</td>
<td>87</td>
<td>75</td>
<td>40</td>
</tr>
<tr>
<td>ESP–1</td>
<td>90</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>ESP–2</td>
<td>92</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>ESP–4</td>
<td>95</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>WESP</td>
<td>90</td>
<td>85</td>
<td>40</td>
</tr>
<tr>
<td>FF</td>
<td>90</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>SD/FF</td>
<td>97</td>
<td>90</td>
<td>0</td>
</tr>
<tr>
<td>DS/FF</td>
<td>95</td>
<td>90</td>
<td>0</td>
</tr>
<tr>
<td>IWS</td>
<td>90</td>
<td>87</td>
<td>75</td>
</tr>
</tbody>
</table>

WS=Wet Scrubber including: Sieve Tray Tower, Packed Tower, Bubble Cap Tower
VS–20=Venturi Scrubber, ca. 20–30 in. W.G. A
VS–60=Venturi Scrubber, ca. >60 in. W.G. A
ESP–1=Electrostatic Precipitator; 1 stage
ESP–2=Electrostatic Precipitator; 2 stage
ESP–4=Electrostatic Precipitator; 4 stage
IWS=Ionizing Wet Scrubber
SD=Dry Scrubber
FF=Fabric Filter (Baghouse)
WESP=Wet Electrostatic Precipitator

**Table 8.1–2—Temperature (F) Entering APCS Above Which Metals Are Classified As Very Volatile in Combustion of Nonchlorinated Wastes**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Symbol</th>
<th>Thermal Input (MMBtu/hr) 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>As</td>
<td>320 280 240 200 160</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Cd</td>
<td>1040 940 860 780 720</td>
</tr>
<tr>
<td>Chromium</td>
<td>Cr</td>
<td>2000 1760 1580 1420 1380</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Be</td>
<td>1680 1440 1240 1080 980</td>
</tr>
<tr>
<td>Antimony</td>
<td>Sb</td>
<td>680 600 540 480 420</td>
</tr>
<tr>
<td>Barium</td>
<td>Ba</td>
<td>2240 1820 1540 1360 1240</td>
</tr>
<tr>
<td>Lead</td>
<td>Pb</td>
<td>1280 1180 1080 1000 920</td>
</tr>
<tr>
<td>Mercury</td>
<td>Hg</td>
<td>340 300 280 220 180</td>
</tr>
<tr>
<td>Silver</td>
<td>Ag</td>
<td>1820 1640 1480 1340 1220</td>
</tr>
<tr>
<td>Thallium</td>
<td>Tl</td>
<td>900 800 700 620 540</td>
</tr>
</tbody>
</table>

1 Interpolation of thermal input is not allowed. If a BIF fires between two ranges, the APCS temperature under the higher thermal input must be used. Example: For a BIF firing 10–100 MMBtu/hr, Mercury is considered very volatile at APCS temperatures above 260 F and volatile at APCS temperatures of 260 F and below.

**Table 8.1–3—Temperature (F) Entering APCS Above Which Metals Are Classified As Very Volatile in Combustion of Chlorinated Wastes**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Symbol</th>
<th>Thermal Input (MMBtu/hr) 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>As</td>
<td>320 280 240 200 160</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Cd</td>
<td>1040 940 860 780 720</td>
</tr>
<tr>
<td>Chromium</td>
<td>Cr</td>
<td>&gt;140 &gt;140 &gt;140 &gt;140 &gt;140</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Be</td>
<td>1680 1440 1240 1080 980</td>
</tr>
<tr>
<td>Antimony</td>
<td>Sb</td>
<td>680 600 540 480 420</td>
</tr>
<tr>
<td>Barium</td>
<td>Ba</td>
<td>2060 1840 1680 1540 1420</td>
</tr>
<tr>
<td>Lead</td>
<td>Pb</td>
<td>&gt;140 &gt;140 &gt;140 &gt;140 &gt;140</td>
</tr>
<tr>
<td>Mercury</td>
<td>Hg</td>
<td>340 300 280 220 180</td>
</tr>
</tbody>
</table>
8.2 APCS RE Default Values for HCl and Cl₂

Default assumptions for APCS RE for HCl in BIFs are shown in Table 8.2–1. This table is identical to the column for other BIFs except that cement kilns have a minimum HCl removal efficiency of 83 percent. Because of the alkaline nature of the raw materials in cement kilns, most of the chlorine is converted to chloride salts. Thus, the minimum APCS RE for HCl for cement kilns is independent of the APCS train.

Removal efficiency of Cl₂ for most types of APCS is generally minimal. Therefore, the default assumption for APCS RE for Cl₂ for all APCSs is 0 percent. This is applicable to all BIFs, including cement kilns.

8.3 APCS RE Default Values for Ash

Default assumptions for APCS RE for PM are also shown in Table 8.1–4. These figures are conservative estimates of PM removal efficiencies for different types of APCSs. They are identical to the figures in the Nonvolatile APCS RE column for hazardous metals presented in Table 8.1–1 because the same collection mechanisms and collection efficiencies that apply to nonvolatile metals also apply to PM.

A waste is considered chlorinated if chlorine is present in concentrations greater than 0.1 percent by weight. In the EPA guidance document “Guidance for Metals and Hydrogen Chloride Controls for Hazardous Waste Incinerators, Volume IV of the Hazardous Waste Incineration Guidance Series,”(1) one percent is used for the chlorinated/nonchlorinated cutoff. However, best engineering judgement, based on examination of pilot-scale data reported by Carroll et al. (2) on the effects of waste chlorine content on metals emissions, suggests that the 1 percent cutoff may not be sufficiently conservative.

Tables 8.1–2 and 8.1–3 were compiled based on equilibrium calculations. Metals are classified as very volatile at all temperatures above the temperature at which the vapor pressure of the metal is greater than 10 percent of the vapor pressure that results in emissions exceeding the most conservative risk-based emissions limits.

8.4 References


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SECTION 9.0 PROCEDURES FOR DETERMINING DEFAULT VALUES FOR PARTITIONING OF METALS, ASH, AND TOTAL CHLORIDE/CHLORINE

Pollutant partitioning factor estimates can come from two sources: default assumptions or engineering judgement. EPA’s default assumptions are discussed below for metals, HCl, Cl₂, and PM. The default assumptions are used to conservatively predict the partitioning factor for several types of BIFs. Engineering judgement-based partitioning factor estimates are discussed in section 9.4.

9.1 Partitioning Default Value for Metals

To be conservative, the Agency is assuming that 100 percent of each metal in each feed stream is partitioned to the combustion gas. Owners/operators may use this default value or a supportable, site-specific value developed following the general guidelines provided in section 9.4.

9.2 Special Procedures for Chlorine, HCl, and Cl₂

The Agency has established the special procedures presented below for chlorine because the emission limits are based on the pollutants HCl and Cl₂ formed from chlorine fed into the combustor. Therefore, the owner/operator must estimate the controlled emission rate of both HCl and Cl₂ and show that they do not exceed allowable levels.

1. The default partitioning value for the fraction of chlorine in the total feed streams that is partitioned to combustion gas is 100 percent. Owners/operators may use this default value or a supportable, site-specific value developed following the general guidelines provided in section 9.4.

2. To determine the partitioning of chlorine in the combustion gas to HCl versus Cl₂, either use the default values below or use supportable site-specific values developed following the general guidelines provided in section 9.4.
   • For BIFs excluding halogen acid furnaces (HAFs), with a total feed stream chlorine/hydrogen ratio \( \leq 0.95 \), the default partitioning factor is 20 percent Cl₂, 80 percent HCl.
   • For HAFs and for BIFs with a total feed stream chlorine/hydrogen ratio \( > 0.95 \), the default partitioning factor is 100 percent Cl₂.

3. To determine the uncontrolled (i.e., prior to acid gas APCs) emission rate of HCl and Cl₂, multiply the feed rate of chlorine times the partitioning factor for each pollutant. Then, for HCl, convert the chlorine emission rate to HCl by multiplying it by the ratio of the molecular weight of HCl to the molecular weight of Cl (i.e., 36.5/35.5). No conversion is needed for Cl₂.

9.3 Special Procedures for Ash

This section: (1) Explains why ash feed rate limits are not applicable to cement and light-weight aggregate kilns; (2) presents the default partitioning values for ash; and (3) explains how to convert the 0.08 g/dscf, corrected to 7% O₂, PM emission limit to a PM emission rate.

Waiver for Cement and Light-Weight Aggregate Kilns. For cement kilns and light-weight aggregate kilns, raw material feed streams contain the vast majority of the ash input, and a significant amount of the ash in the feed stream is entrained into the kiln exhaust gas. For these devices, the ash content of the hazardous waste stream is expected to have a negligible effect on total ash emissions. For this reason, there is no ash feed rate compliance limit for cement kilns or light-weight aggregate kilns. Nonetheless, cement kilns and light-weight aggregate kilns are required to initially certify that PM emissions are not likely to exceed the PM limit, and subsequently, certify through compliance testing that the PM limit is not exceeded.

Default Partitioning Value for Ash. The default assumption for partitioning of ash depends on the feed stream firing system. There are two methods by which materials may be fired into BIFs: suspension-firing and bed-firing.

The suspension category includes atomized and lanced pumpable liquids and suspension-fired pulverized solids. The default partitioning assumption for materials fired by these systems is that 100 percent of the ash partitions to the combustion gas.

The bed-fired category consists primarily of stoker boilers and raw materials (and in some cases containerized hazardous waste) fed into cement and light-weight aggregate kilns. The default partitioning assumption for materials fired on a bed is that 5 percent of the ash partitions to the combustion gas.

Converting the PM Concentration-Based Standard to a PM Mass Emission Rate. The emission limit for BIFs is 0.08 g/dscf, corrected to 7% O₂, unless a more stringent standard applies [e.g., a New Source Performance Standard (NSPS) or a State standard implemented under the State Implementation Plan (SIP)]. To convert the 0.08 g/dscf standard to a PM mass emission rate:

1. Determine the flue gas \( \delta \) concentration (percent by volume, dry) and flue gas flow rate (dry standard cubic feet per minute);

and

2. Calculate the allowable PM mass emission rate by multiplying the concentration-based PM emission standard times the flue gas flow rate times a dilution correction factor equal to \((21-\delta)/21\) (concentration from step 1)/(21-\(\delta\)).
9.4 Use of Engineering Judgement To Estimate Partitioning and APCS RE Values

Engineering judgement may be used in place of EPA’s conservative default assumptions to estimate partitioning and APCS RE values provided that the engineering judgement is defensible and properly documented. To properly document engineering judgement, the owner-operator must keep a written record of all assumptions and calculations necessary to justify the APCS RE used. The owner-operator must provide this record to the Director upon request and must be prepared to defend the assumptions and calculations used.

If the engineering judgement is based on emissions testing, the testing will often document the emission rate of a pollutant relative to the feed rate of that pollutant rather than the partitioning factor or APCS RE. Examples of situations where the use of engineering judgement may be supportable to estimate a partitioning factor, APCS RE, or SRE include:

• Using emissions testing data from the facility to support an SRE, even though the testing may not meet full QA/QC procedures (e.g., triplicate test runs). The closer the test results conform with full QA/QC procedures and the closer the operating conditions during the test conform with the established operating conditions for the facility, the more supportable the engineering judgement will be.
• Applying emissions testing data documenting an SRE for one metal, including nonhazardous surrogate metals to another less volatile metal.
• Applying emissions testing data documenting an SRE from one facility to a similar facility.
• Using APCS vendor guarantees of removal efficiency.

9.5 Restrictions on Use of Test Data

The measurement of an SRE or an APCS RE may be limited by the detection limits of the measurement technique. If the emission of a pollutant is undetectable, then the calculation of SRE or APCS RE should be based on the lower limit of detectability. An SRE or APCS RE of 100 percent is not acceptable.

Further, mass balance data of facility inputs, emissions, and products/residues may not be used to support a partitioning factor, given the inherent uncertainties of such procedures. Partitioning factors other than the default values may be supported based on engineering judgement, considering, for example, process chemistry. Emissions test data may be used to support an engineering judgement-based SRE, which includes both partitioning and APCS RE.

9.5 References


SECTION 10.0 ALTERNATIVE METHODOLOGY FOR IMPLEMENTING METALS CONTROLS

10.1 Applicability

This method for controlling metals emissions applies to cement kilns and other industrial furnaces operating under interim status that recycle emission control residue back into the furnace.

10.2 Introduction

Under this method, cement kilns and other industrial furnaces that recycle emission control residue back into the furnace must comply with a kiln dust concentration limit (i.e., a collected particulate matter (PM) limit) for each metal, as well as limits on the maximum feedrates of each of the metals in: (1) pumpable hazardous waste; and (2) all hazardous waste.

The following subsections describe how this method for controlling metals emissions is to be implemented:

• Subsection 10.3 discusses the basis of the method and the assumptions upon which it is founded;
• Subsection 10.4 provides an overview of the implementation of the method;
• Subsection 10.5 is a step-by-step procedure for implementation of the method;
• Subsection 10.6 describes the compliance procedures for this method; and
• Appendix A describes the statistical calculations and tests to be used in the method.

10.3 Basis

The viability of this method depends on three fundamental assumptions:

1. Variations in the ratio of the metal concentration in the emitted particulate to the metal concentration in the collected kiln dust (referred to as the enrichment factor or EF) for any given metal at any given facility will fall within a normal distribution that can be experimentally determined.
2. The metal concentrations in the collected kiln dust can be accurately and representatively measured.
3. The facility will remain in compliance with the applicable particulate matter (PM) emission standard.

Given these assumptions, metal emissions can be related to the measured concentrations in the collected kiln dust by the following equation:
Where:
ME is the metal emitted;
PME is the particulate matter emitted;
DMC is the metal concentration in the collected kiln dust; and
EF is the enrichment factor, which is the ratio of the metal concentration in the emitted particulate matter to the metal concentration in the collected kiln dust.

This equation can be rearranged to calculate a maximum allowable dust metal concentration limit (DMCL) by assuming worst-case conditions that: metal emissions are at the Tier III (or Tier II) limit (see 40 CFR 266.106), and that particulate emissions are at the particulate matter limit (PML):

\[ DMCL = \frac{Tier \ III \ Limit \ \left( \frac{1b \ Emitted \ Metal}{hr} \right)}{PML \ \left( \frac{1b \ PM}{hr} \right) \ EF \ \left( \frac{1b \ Emitted \ Metal / 1b \ PM}{1b \ Dust \ Metal / 1b \ Dust} \right) \]  \tag{2} \]

The enrichment factor used in the above equation must be determined experimentally from a minimum of 10 tests in which metal concentrations are measured in kiln dust and stack samples taken simultaneously. This approach provides a range of enrichment factors that can be inserted into a statistical distribution (t-distribution) to determine EF_{95}% and EF_{99}%.

EF_{95}% is the value at which there is a 95% confidence level that the enrichment factor is below this value at any given time. Similarly, EF_{99}% is the value at which there is a 99% confidence level that the enrichment factor is below this value at any given time. EF_{95}% is used to calculate the “violation” dust metal concentration limit (DMCL_{v}):

\[ DMCL_{v} = \frac{Tier \ III \ Limit \ \left( \frac{1b \ Emitted \ Metal}{hr} \right)}{PML \ \left( \frac{1b \ PM}{hr} \right) \ EF_{95} \ \left( \frac{1b \ Emitted \ Metal / 1b \ PM}{1b \ Dust \ Metal / 1b \ Dust} \right) \]  \tag{3} \]

If the kiln dust metal concentration is just above this “violation” limit, and the PM emissions are at the PM emissions limit, there is a 5% chance that the metal emissions are above the Tier III limit. In such a case, the facility would be in violation of the metals standard.

To provide a margin of safety, a second, more conservative kiln dust metal concentration limit is also used. This “conservative” dust metal concentration limit (DMCL_{c}) is calculated using a “safe” enrichment factor (SEF). If EF_{95}% is greater than two times the value of EF_{95}%, the “safe” enrichment factor can be calculated using Equation 4a:

\[ SEF > 2 \ EF_{95} \% \quad (4a) \]
If \( \text{EF}_{99\%} \) is not greater than two times the value of \( \text{EF}_{95\%} \), the “safe” enrichment factor can be calculated using Equation 4b:

\[
\text{SEF} \geq \text{EF}_{99\%} (4b)
\]

In cases where the enrichment factor cannot be determined because the kiln dust metal concentration is nondetectable, the “safe” enrichment factor is as follows:

\[
\text{SEF}=100 (4c)
\]

For all cases, the “conservative” dust metal concentration limit is calculated using the following equation:

\[
\text{DMCL}_c = \frac{\text{Tier III Limit} \left( \frac{1b \text{ Emitted Metal}}{hr} \right)}{\text{PML} \left( \frac{1b \text{ PM}}{hr} \right) \text{SEF} \left( \frac{1b \text{ Emitted Metal}/1b \text{ PM}}{1b \text{ Dust Metal}/1b \text{ Dust}} \right)} (5)
\]

If the kiln dust metal concentration at a facility is just above the “conservative” limit based on that “safe” enrichment factor provided in Equation 4a, and the PM emissions are at the PM emissions limit, there is a 5% chance that the metal emissions are above one-half the Tier III limit. If the kiln dust metal concentration at the facility is just above the “conservative” limit based on the “safe” enrichment factor provided in Equation 4b, and the PM emissions are at the PM emissions limit, there is a 1% chance that the metal emissions are above the Tier III limit. In either case, the facility would be unacceptably close to a violation. If this situation occurs more than 5% of the time, the facility would be required to rerun the series of 10 tests to determine the enrichment factor. To avoid this expense, the facility would be advised to reduce its metal feedrates or to take other appropriate measures to maintain its kiln dust metal concentrations in compliance with the “conservative” dust metal concentration limits.

In cases where the enrichment factor cannot be determined because the kiln dust metal concentration is nondetectable, and thus no \( \text{EF}_{99\%} \) exists, the “violation” dust metal concentration limit is set at ten times the “conservative” limit:

\[
\text{DMCL}_v=10 \times \text{DMCL}_c (6)
\]

10.4 Overview

The flowchart for implementing the method is shown in Figure 10.4–1. The general procedure is as follows:

- Follow the certification of precompliance procedures described in subsection 10.6 (to comply with 40 CFR 266.103(b)).
- For each metal of concern, perform a series of tests to establish the relationship (enrichment factor) between the concentration of emitted metal and the metal concentration in the collected kiln dust.
- Use the demonstrated enrichment factor, in combination with the Tier III (or Tier II) metal emission limit and the most stringent applicable particulate emission limit, to calculate the “violation” and “conservative” dust metal concentration limits. Include this information with the certification of compliance under 40 CFR 266.103(c).
Perform daily and/or weekly monitoring of the cement kiln dust metal concentration to ensure (with appropriate QA/QC) that the metal concentration does not exceed either limit.

- If the cement kiln dust metal concentration exceeds the "conservative" limit more than 5% of the time (i.e., more than three failures in last 60 tests), the series of tests to determine the enrichment factor must be repeated.

- If the cement kiln dust metal concentration exceeds the "violation" limit, a violation has occurred.

- Perform quarterly tests to verify that the enrichment factor has not increased significantly. If the enrichment factor has increased, the series of tests to determine the enrichment factor must be repeated.
10.5 Implementation Procedures

A step-by-step description for implementing the method is provided below:

(1) Prepare initial limits and test plans.
   • Determine the Tier III metal emission limit. The Tier II metal emission limit may also be used (see 40 CFR 266.106).
   • Determine the applicable PM emission standard. This standard is the most stringent particulate emission standard that applies to the facility. A facility may elect to restrict itself to an even more stringent self-imposed PM emission standard, particularly if the facility finds that it is easier to control particulate emissions than to reduce the kiln dust concentration of a certain metal (i.e., lead).
   • Determine which metals need to be monitored (i.e., all hazardous metals for which Tier III emission limits are lower than PM emission limits—assuming PM is pure metal).
   • Follow the compliance procedures described in Subsection 10.6.
   • Follow appropriate guidelines for preparing test plans and waste analysis plans for the following tests:
     — Compliance tests to determine limits on metal feedrates in pumpable hazardous wastes and in all hazardous wastes (as well as to determine other compliance parameters);
     — Initial tests to determine enrichment factors;
     — Quarterly tests to verify enrichment factors;
     — Analysis of hazardous waste feedstreams; and
     — Daily and/or weekly monitoring of kiln dust for continuing compliance.

(2) Conduct tests to determine the enrichment factor.
   • These tests must be conducted within a 14-day period. No more than two tests may be conducted in any single day. If the tests are not completed within a 14-day period, they must be repeated.
   • Simultaneous stack samples and kiln dust samples must be taken.
     — Stack sampling must be conducted with the multiple metals train according to procedures provided in section 10.3 of this Methods Manual.
     — Kiln dust sampling must be conducted as follows:
       — Follow appropriate sampling and analytical procedures such as those described in the waste analysis plan as they pertain to the condition and accessibility of the dust.
       — Samples should be representative of the last ESP or Fabric Filter in the APCS series.
     — The feedrates of hazardous metals in all pumpable hazardous waste streams and in all hazardous waste streams must be monitored during these tests. It is recommended (but not required) that the feedrates of hazardous metals in all feedstreams also be monitored.
   • At least ten single (noncomposted) runs are required during the tests.
     — The facility must follow a normal schedule of kiln dust recharging for all of the tests.
     — Three of the first five tests must be compliance tests in conformance with 40 CFR 266.103(c); i.e., they must be used to determine maximum allowable feedrates of metals in pumpable hazardous wastes, and in all hazardous wastes, as well as to determine other compliance limits (see 40 CFR 266.103(c)(1)).
     — The remainder of the tests need not be conducted under full compliance test conditions; however, the facility must operate at its compliance test production rate, and it must burn hazardous waste during these tests such that the feedrate of each metal for pumpable and total hazardous wastes is at least 25% of the feedrate during compliance testing. If these criteria, and those discussed below, are not met for any parameter during a test, then either the test is not valid for determining enrichment factors under this method, or the compliance limits for that parameter must be established based on these test conditions rather than on the compliance test conditions.
   • Verify that compliance emission limits are not exceeded.
     — Metal emissions must not exceed Tier III (or Tier II) limits.
     — PM emissions must not exceed the most stringent of applicable PM standards (or an optional self-imposed particulate standard).
   • The facility must generate normal, marketable product using normal raw materials and fuels under normal operating conditions (for parameters other than those specified under this method) when these tests are conducted.
   • Chromium must be treated as a special case:
     — The enrichment factor for total chromium is calculated in the same way as the enrichment factor for other metals (i.e., the enrichment factor is the ratio of the concentration of total chromium in the emitted particulate matter to the concentration of total chromium in the collected kiln dust).
     — The enrichment factor for hexavalent chromium (if measured) is defined as the ratio of the concentration of hexavalent chromium in the emitted particulate matter to the concentration of total chromium in the collected kiln dust.

(3) Use the enrichment factors measured in Step 2 to determine EF_{95}%, EF_{99}%, and SEF.
   • Calculate EF_{95}% and EF_{99}% according to the t-distribution as described in Appendix A.
   • Calculate SEF by...
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—Equation 4a if \( EF_{95}\% \) is determinable and if \( EF_{95}\% \) is greater than two times \( EF_{95}\% \).
—Equation 4b if \( EF_{95}\% \) is determinable and if \( EF_{95}\% \) is not greater than two times \( EF_{95}\% \).
—Equation 4c if \( EF_{95}\% \) is not determinable.

The facility may choose to set an even more conservative SEF to give itself a larger margin of safety between the point where corrective action is necessary and the point where a violation occurs.

(4) Prepare certification of compliance.  
   • Calculate the “conservative” dust metal concentration limit (DMCL<sub>c</sub>) using Equation 5.
   • Chromium is treated as a special case. The “conservative” kiln dust chromium concentration limit is set for total chromium, not for hexavalent chromium. The limit for total chromium must be calculated using the Tier III (or Tier II) metal limit for hexavalent chromium.
   • If the stack samples described in Step 2 were analyzed for hexavalent chromium, the SEF based on the hexavalent chromium enrichment factors (as defined in Step 2) must be used in this calculation.
   • If the stack samples were not analyzed for hexavalent chromium, then the SEF based on the total chromium enrichment factor must be used in this calculation.
   • Calculate the “violation” dust metal concentration limit (DMCL<sub>v</sub>) using Equation 3 if \( EF_{95}\% \) is determinable, or using Equation 6 if \( EF_{95}\% \) is not determinable.
   • Chromium is treated as a special case. The “violation” kiln dust chromium concentration limit is set for total chromium, not for hexavalent chromium. The limit for total chromium must be calculated using the Tier III (or Tier II) metal limit for hexavalent chromium.
   • If the stack samples taken in Step 2 were analyzed for hexavalent chromium, the \( EF_{95}\% \) based on the hexavalent chromium enrichment factor (as defined in Step 2) should be used in this calculation.
   • If the stack samples were not analyzed for hexavalent chromium, the \( EF_{95}\% \) based on the total chromium enrichment factor must be used in this calculation.
   • Submit certification of compliance.
   • Steps 2–4 must be repeated for recertification, which is required once every 3 years (see §266.103(d)).

(5) Monitor metal concentrations in kiln dust for continuing compliance, and maintain compliance with all compliance limits for the duration of interim status.
   • Metals to be monitored during compliance testing are classified as either “critical” or “noncritical” metals.
   • All metals must initially be classified as “critical” metals and be monitored on a daily basis.
   • A “critical” metal may be reclassified as a “noncritical” metal if its concentration in the kiln dust remains below 10% of its “conservative” kiln dust metal concentration limit for 30 consecutive daily samples. “Noncritical” metals must be monitored on a weekly basis.
   • A “noncritical” metal must be reclassified as a “critical” metal if its concentration in the kiln dust is above 10% of its “conservative” kiln dust metal concentration limit for any single daily or weekly sample.
   • Noncompliance with the sampling and analysis schedule prescribed by this method is a violation of the metals controls under §266.103.
   • Follow the sampling, compositing, and analytical procedures described in this method and in other appropriate methods, as they pertain to the condition and accessibility of the kiln dust.
   • Follow the same procedures and sample at the same locations as were used for kiln dust samples collected to determine the enrichment factors (as discussed in Step 2).
   • Samples must be collected at least once every 8 hours, and a daily composite must be prepared according to appropriate procedures.
   • At least one composite sample is required. This sample is referred to as the “required” sample.
   • For QA/QC purposes, a facility may elect to collect two or more additional samples. These samples are referred to as the “spare” samples. These additional samples must be collected over the same time period and according to the same procedures as those used for the “required” sample.
   • Samples for “critical” metals must be daily composites.
   • Samples for “noncritical” metals must be weekly composites. These samples can be composites of the original 8-hour samples, or they can be composites of daily composite samples.
   • Analyze the “required” sample to determine the concentration of each metal.
   • This analysis must be completed within 48 hours of the close of the sampling period. Failure to meet this schedule is a violation of the metals standards of §266.103.
   • If the “conservative” kiln dust metal concentration limit is exceeded for any metal, refer to Step 8.
   • If the “conservative” kiln dust metal concentration limit is not exceeded, continue with the daily or weekly monitoring (Step 5) for the duration of interim status.
   • Conduct quarterly enrichment factor verification tests, as described in Step 6.

(6) Conduct quarterly enrichment factor verification tests.
   • After certification of compliance with the metals standards, a facility must conduct quarterly enrichment factor verification tests every three months for the
duration of interim status. The first quarterly test must be completed within three months of certification (or recertification). Each subsequent quarterly test must be completed within three months of the preceding quarterly test. Failure to meet this schedule is a violation.

• Simultaneous stack samples and kiln dust samples must be collected.
• Follow the same procedures and sample at the same locations as were used for kiln dust samples and stack samples collected to determine the enrichment factors (as discussed in Step 2).
• At least three single (noncomposited) runs are required. These tests need not be conducted under the operating conditions of the initial compliance test; however, the facility must operate under the following conditions:
  —It must operate at compliance test production rate.
  —It must burn hazardous waste during the test, and for the 2-day period immediately preceding the test, such that the feedrate of each metal for pumpable and total hazardous wastes consist of at least 25% of the operating limits established during the compliance test.
  —It must remain in compliance with all compliance parameters (see §266.103(c)(1)).
  —It must follow a normal schedule of kiln dust recharging.
  —It must generate normal marketable product from normal raw materials during the tests.

(7) Conduct a statistical test to determine if the enrichment factors measured in the quarterly verification tests have increased significantly from the enrichment factors determined in the tests conducted in Step 2. The enrichment factors have increased significantly if all three of the following criteria are met:
• By applying the t-test described in appendix A, it is determined that the enrichment factors measured in the quarterly tests are not taken from the same population as the enrichment factors measured in the Step 2 tests;
• The EF5% calculated for the combined data sets (i.e., the quarterly test data and the original Step 2 test data) according to the t-distribution (described in appendix A) is more than 10% higher than the EF95% based on the enrichment factors previously measured in Step 2; and
• The highest measured kiln dust metal concentration recorded in the previous quarter is more than 10% of the “violation” kiln dust metal concentration limit that would be calculated from the combined EF95%.

If the enrichment factors have increased significantly, the tests to determine the enrichment factors must be repeated (refer to Step 11). If the enrichment factors have not increased significantly, continue to use the kiln dust metal concentration limits based on the enrichment factors previously measured in Step 2, and continue with the daily and/or weekly monitoring described in Step 5.

(8) If the “conservative” kiln dust metal concentration limit was exceeded for any metal in any single analysis of the “required” kiln dust sample, the “spare” samples corresponding to the same period may be analyzed to determine if the exceedance was due to a sampling or analysis error.
• If no “spare” samples were taken, refer to Step 9.
• If the average of all the samples for a given day (or week, as applicable) (including the “required” sample and the “spare” samples) does not exceed the “conservative” kiln dust metal concentration limit, no corrective measures are necessary; continue with the daily and/or weekly monitoring as described in Step 5.
• If the average of all the samples for a given day (or week, as applicable) exceeds the “conservative” kiln dust metal concentration limit, but the average of the “spare” samples is below the “conservative” kiln dust metal concentration limit, apply the Q-test, described in appendix A, to determine whether the “required” sample concentration can be judged as an outlier.
  —If the “required” sample concentration is judged an outlier, no corrective measures are necessary; continue with the daily and/or weekly monitoring described in Step 5.
  —If the “required” sample concentration is not judged an outlier, refer to Step 9.

(9) Determine if the “violation” kiln dust metal concentration has been exceeded based on either the average of all the samples collected during the 24-hour period in question, or if discarding an outlier can be statistically justified by the Q-test described in appendix A, on the average of the remaining samples.
• If the “violation” kiln dust metal concentration limit has been exceeded, a violation of the metals controls under §266.103(c)(1) has occurred. Notify the Director that a violation has occurred. Hazardous waste may be burned for testing purposes for up to 720 operating hours to support a revised certification of compliance. Note that the Director may grant an extension of the hours of hazardous waste burning under §266.103(c)(7) if additional burning time is needed to support a revised certification for reasons beyond the control of the owner or operator. Until a revised certification of compliance is submitted to the Director, the feedrate of the metals in violation in total and pumpable hazardous waste feeds is limited to 50% of the previous compliance test limits.
• If the “violation” kiln dust metal concentration has not been exceeded:
  —If the exceedance occurred in a daily composite sample, refer to Step 10.
—If the exceedance occurred in a weekly composite sample, refer to Step 11.

(10) Determine if the “conservative” kiln dust metal concentration limit has been exceeded more than three times in the last 60 days.
  • If not, log this exceedance and continue with the daily and/or weekly monitoring (Step 5).
  • If so, the tests to determine the enrichment factors must be repeated (refer to Step 11).
  • This determination is made separately for each metal. For example,
    —Three exceedances for each of the ten hazardous metals are allowed within any 60-day period.
    —Four exceedances of any single metal in any 60-day period is not allowed.
  • This determination should be made daily, beginning on the first day of daily monitoring. For example, if four exceedances of any single metal occur in the first four days of daily monitoring, do not wait until the end of the 60-day period; refer immediately to Step 11.
  
(11) The tests to determine the enrichment factor must be repeated if: (1) More than three exceedances of the “conservative” kiln dust metal concentration limit occur within any 60 consecutive daily samples; (2) an excursion of the “conservative” kiln dust metal concentration limit occurs in any weekly sample; or (3) a quarterly test indicates that the enrichment factors have increased significantly.
  • The facility must notify the Director if these tests must be repeated.
  • The facility has up to 720 hazardous-waste-burning hours to redetermine the enrichment factors for the metal or metals in question and to recertify (beginning with a return to Step 2). During this period, the facility must reduce the feed rate of the metal in violation by 50%. If the facility has not completed the recertification process within this period, it must stop burning or obtain an extension. Hazardous waste burning may resume only when the recertification process (ending with Step 4) has been completed.
  • Meanwhile, the facility must continue with daily kiln dust metals monitoring (Step 5) and must remain in compliance with the “violation” kiln dust metal concentration limits (Step 9).

10.6 Precompliance Procedures

Cement kilns and other industrial furnaces that recycle emission control residue back into the furnace must comply with the same certification schedules and procedures (with the few exceptions described below) that apply to other boilers and industrial furnaces. These schedules and procedures, as set forth in §266.103, require no later than the effective date of the rule, each facility submit a certification which establishes precompliance limits for a number of compliance parameters (see §266.103(b)(3)), and that each facility immediately begin to operate under these limits.

These precompliance limits must ensure that interim status emissions limits for hazardous metals, particulate matter, HCl, and Cl₂ are not likely to be exceeded. Determination of the values of the precompliance limits must be made based on either (1) conservative default assumptions provided in this Methods Manual, or (2) engineering judgement.

The flowchart for implementing the precompliance procedures is shown in Figure 10.6–1. The step-by-step precompliance implementation procedure is described below. The precompliance implementation procedures and numbering scheme are similar to those used for the compliance procedures described in Subsection 10.5.

1. Prepare initial limits and test plans.
   • Determine the Tier III metal emission limit. The Tier II metal emission limit may also be used (see 40 CFR 266.106).
   • Determine the applicable PM emission standard. This standard is the most stringent particulate emission standard that applies to the facility. A facility may elect to restrict itself to an even more stringent self-imposed PM emission standard, particularly if the facility finds that it is easier to control particulate emissions than to reduce the kiln dust concentration of a certain metal (i.e., lead).
   • Determine which metals need to be monitored (i.e., all hazardous metals for which Tier III emission limits are lower than PM emission limits, assuming PM is pure metal).
   • Follow appropriate procedures for preparing waste analysis plans for the following tasks:
     -- Analysis of hazardous waste feedstreams.
     -- Daily and/or weekly monitoring of kiln dust concentrations for continuing compliance.

2. Determine the “safe” enrichment factor for precompliance. In this context, the “safe” enrichment factor is a conservatively high estimate of the enrichment factor (the ratio of the emitted metal concentration to the metal concentration in the collected kiln dust). The “safe” enrichment factor must be calculated from either conservative default values, or engineering judgement.
Conservative default values for the "safe" enrichment factor are as follows:
- SEF=10 for all hazardous metals except mercury. SEF=10 for antimony, arsenic, barium, beryllium, cadmium, chromium, lead, silver, and thallium.
- SEF=100 for mercury.

Engineering judgement may be used in place of conservative default assumptions provided that the engineering judgement is defensible and properly documented. The facility must keep a written record of all assumptions and calculations necessary to justify the SEF. The facility must provide this record to EPA upon request and must be prepared to defend these assumptions and calculations.

Examples of situations where the use of engineering judgement is appropriate include:
- Use of data from precompliance tests;
- Use of data from previous compliance tests; and
- Use of data from similar facilities.

(3) This step does not apply to precompliance procedures.

(4) Prepare certification of precompliance.
- Calculate the “conservative” dust metal concentration limit (DMCL) using Equation 5.
- Submit certification of precompliance. This certification must include precompliance limits for all compliance parameters that apply to other boilers and industrial furnaces (i.e., those that do not recyle emission control residue back into the furnace) as listed in §266.103(b)(3), except that it is not necessary to set precompliance limits on maximum feedrate of each hazardous metal in all combined feedstreams.
- Furnaces that recycle collected PM back into the furnace (and that elect to comply with this method (see §266.103(c)(3)(i)) are subject to a special precompliance parameter, however. They must establish precompliance limits on the maximum concentration of each hazardous metal in collected kiln dust (which must be set according to the procedures described above).

(5) Monitor metal concentration in kiln dust for continuing compliance, and maintain compliance with all precompliance limits until certification of compliance has been submitted.
- Metals to be monitored during precompliance testing are classified as either “critical” or “noncritical” metals.
- All metals must initially be classified as “critical” metals and be monitored on a daily basis.
- A “critical” metal may be reclassified as a “noncritical” metal if its concentration in the kiln dust remains below 10% of its “conservative" kiln dust metal concentration limit for 30 consecutive daily samples. “Noncritical” metals must be monitored on a weekly basis, at a minimum.
- A “noncritical” metal must be reclassified as a “critical” metal if its concentration in the kiln dust is above 10% of its “conservative” kiln dust metal concentration limit for any single daily or weekly sample.
- It is a violation if the facility fails to analyze the kiln dust for any “critical” metal on any single day or for any “noncritical” metal during any single week, when hazardous waste is burned.
- Follow the sampling, compositing, and analytical procedures described in this method and in other appropriate methods as they pertain to the condition and accessibility of the kiln dust.
- Samples must be collected at least once every 8 hours, and a daily composite must be prepared according to appropriate procedures.
- At least one composite sample is required. This sample is referred to as the “required” sample.
- For QA/QC purposes, a facility may elect to collect two or more additional samples. These samples are referred to as the “spare” samples. These additional samples must be collected over the same time period and according to the same procedures as those used for the “required” sample.
  - Samples for “critical” metals must be daily composites.
  - Samples for “noncritical” metals must be weekly composites, at a minimum. These samples can be composites of the original 8-hour samples, or they can be composites of daily composite samples.
- Analyze the “required” sample to determine the concentration of each metal.
- This analysis must be completed within 48 hours of the close of the sampling period. Failure to meet this schedule is a violation.
  - If the “conservative” kiln dust metal concentration limit is exceeded for any metal, refer to Step 8.
  - If the “conservative” kiln dust metal concentration limit is not exceeded, continue with the daily and/or weekly monitoring (Step 5) for the duration of interim status.
- This step does not apply to precompliance procedures.
- This step does not apply to precompliance procedures.
- If the “conservative” kiln dust metal concentration limit was exceeded for any metal in any single analysis of the “required” kiln dust sample, the “spare” samples corresponding to the same period may be analyzed to determine if the exceedance is due to a sampling or analysis error.
  - If no “spare” samples were taken, refer to Step 9.
  - If the average of all the samples for a given day (or week, as applicable) (including the “required” sample and the “spare” samples) does not exceed the “conservative” kiln dust metal concentration limit, no corrective measures are necessary; continue with the daily and/or weekly monitoring as described in Step 5.
  - If the average of all the samples for a given day (or week, as applicable) exceeds the “conservative” kiln dust metal concentration limit, but the average of the “spare” samples is below the “conservative” kiln dust metal concentration limit, apply the Q-test, described in appendix A, to determine whether the “required” sample concentration can be judged as an outlier.
  - If the “required” sample concentration is judged an outlier, no corrective measures are necessary; continue with the daily and/or weekly monitoring described in Step 5.
  - If the “required” sample concentration is not judged an outlier, refer to Step 10.
- This step does not apply to precompliance procedures.
- Determine if the “conservative” kiln dust metal concentration limit has been exceeded more than three times in the last 60 days.

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• If not, log this exceedance and continue with the daily and/or weekly monitoring (Step 5).
• If so, the tests to determine the enrichment factors must be repeated (refer to Step 11).
• This determination is made separately for each metal; for example:
  —Three exceedances for each of the ten hazardous metals are allowed within any 60-day period.
  —Four exceedances of any single metal in any 60-day period is not allowed.
• This determination should be made daily, beginning on the first day of daily monitoring. For example, if four exceedances of any single metal occur in the first four days of daily monitoring, do not wait until the end of the 60-day period; refer immediately to Step 11.

(11) A revised certification of precompliance must be submitted to the Director (or certification of compliance must be submitted) if: (1) More than three exceedances of the “conservative” kiln dust metal concentration limit occur within any 60 consecutive daily samples; or (2) an exceedance of the “conservative” kiln dust metal concentration limit occurs in any weekly sample.
• The facility must notify the Director if a revised certification of precompliance must be submitted.
  • The facility has up to 720 waste-burning hours to submit a certification of compliance or a revised certification of precompliance. During this period, the feed rate of the metal in violation must be reduced by 50%. In the case of a revised certification of precompliance, engineering judgement, to decrease the estimated SEF and thus increase the “conservative” kiln dust metal concentration limit will not be exceeded. Examples of how this goal might be accomplished include:
  —Changing equipment or operating procedures to reduce the kiln dust metal concentration;
  —Changing equipment or operating procedures, or using more detailed engineering judgement, to decrease the estimated SEF and thus increase the “conservative” kiln dust metal concentration limit;
  —Increasing the “conservative” kiln dust metal concentration limit by imposing a stricter PM emissions standard; or
  —Increasing the “conservative” kiln dust metal concentration limit by performing a more detailed risk assessment to increase the metal emission limits.
• Meanwhile, the facility must continue with daily kiln dust metals monitoring (Step 5).

APPENDIX A TO APPENDIX IX TO PART 266—
STATISTICS

A.1 Determination of Enrichment Factor

After at least 10 initial emissions tests are performed, an enrichment factor for each metal must be determined. At the 95% confidence level, the enrichment factor, EF₀%, is based on the test results and is statistically determined so there is only a 5% chance that the enrichment factor at any given time will be larger than EF₀%. Similarly, at the 99% confidence level, the enrichment factor, EF₀%, is statistically determined so there is only a 1% chance that the enrichment factor at any given time will be larger than EF₀%.

For a large number of samples (n > 30), EF₀% is based on a normal distribution, and is equal to:

\[ \text{EF}_0\% = \text{EF} \pm z_c \sigma \]  

where:

\[ \text{EF} = \frac{\sum EF_i}{n} \]  

\[ \sigma = \sqrt{\frac{\sum (EF_i - \text{EF})^2}{n}} \]  

For a 95% confidence level, \( z_c \) is equal to 1.645.

For a small number of samples (n<30), EF₀% is based on the t-distribution and is equal to:

\[ \text{EF}_0\% = \text{EF} \pm t_c S \]  

where the standard deviation, S, is defined as:

\[ S = \sqrt{\frac{\sum (EF_i - \text{EF})^2}{n - 1}} \]  

tc is a function of the number of samples and the confidence level that is desired. It increases in value as the sample size decreases and the confidence level increases. The 95% confidence level is used in this method to calculate the “violation” kiln dust metal concentration limit; and the 99% confidence level is sometimes used to calculate the “conservative” kiln dust metal concentration limit. Values of tc are shown in table A-
The 90% confidence level for data rejection is approached.

### A.2 Comparison of Enrichment Factor Groups

To determine if the enrichment factors measured in the quarterly tests are significantly different from the enrichment factors determined in the initial Step 2 tests, the t-test is used. In this test, the value $t_{\text{meas}}$ determined in the initial Step 2 tests, the $t$-statistical test is used to decide if the upper limit, the “spare” samples are analyzed. If the average of the combined “required” and “spare” values is still above the limit, a statistical test is used to decide if the upper value can be rejected.

The “Q-test” is used to determine if a data point can be rejected. The difference between the questionable result and its neighbor is divided by the spread of the entire data set. The resulting ratio, $Q_{\text{meas}}$, is then compared with rejection values that are critical for a particular degree of confidence, where $Q_{\text{meas}}$ is:

$$Q_{\text{meas}} = \frac{DMC_{\text{highest}} - DMC_{\text{next highest}}}{DMC_{\text{highest}} - DMC_{\text{lowest}}}$$

The 90% confidence level for data rejection is used in this method. Table A-2 provides the values of $Q_{\text{meas}}$ at the 90% confidence level. If $Q_{\text{meas}}$ is larger than $Q_{\text{crit}}$, the data point can be discarded. Only one data point from a sample group can be rejected using this method.

### Table A-2—Critical Values for Use in the Q-Test

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### Table A-1—T-Distribution (Continued)

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### Table A-2—Critical Values for Use in the Q-Test (Continued)

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</table>
APPENDIX XI TO PART 266—LEAD-BEARING MATERIALS THAT MAY BE PROCESSED IN EXEMPT LEAD SMELTERS

A. Exempt Lead-Bearing Materials When Generated or Originally Produced By Lead-Associated Industries

1. Acid dump/fill solids
2. Sump mud
3. Materials from laboratory analyses
4. Acid filters
5. Baghouse bags
6. Clothing (e.g., coveralls, aprons, shoes, hats, gloves)
7. Sweepings
8. Air filter bags and cartridges
9. Respiratory cartridge filters
10. Shop abrasives
11. Stacking boards
12. Waste shipping containers (e.g., cartons, bags, drums, cardboard)
13. Paper hand towels
14. Wiping rags and sponges
15. Contaminated pallets
16. Water treatment sludges, filter cakes, residues, and solids
17. Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries (e.g., K069 and D008 wastes)
18. Spent grids, posts, and separators
19. Spent batteries
20. Lead oxide and lead oxide residues
21. Lead plates and groups
22. Spent battery cases, covers, and vents
23. Pasting belts
24. Water filter media
25. Cheesecloth from pasting rollers
26. Pasting additive bags
27. Asphalt paving materials

B. Exempt Lead-Bearing Materials When Generated by Any Industry

APPENDIX XII TO PART 266—NICKEL OR CHROMIUM-BEARING MATERIALS THAT MAY BE PROCESSED IN EXEMPT NICKEL-CHROMIUM RECOVERY FURNACES

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1. Baghouse bags
2. Raney nickel catalyst
3. Floor sweepings
4. Air filters
5. Electroplating bath filters
6. Wastewater filter media
7. Wood pallets
8. Disposable clothing (coveralls, aprons, hats, and gloves)
9. Laboratory samples and spent chemicals
10. Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
11. Respirator cartridge filters
12. Paper hand towels

B. Exempt Nickel or Chromium-Bearing Materials when Generated by Any Industry

1. Electroplating wastewater treatment sludges (F006)
2. Nickel and/or chromium-containing solutions
3. Nickel, chromium, and iron catalysts
4. Nickel-cadmium and nickel-iron batteries
5. Filter cake from wet scrubber system water treatment plants in the specialty steel industry
6. Filter cake from nickel-chromium alloy pickling operations

APPENDIX XIII TO PART 266—MERCURY-BEARING WASTES THAT MAY BE PROCESSED IN EXEMPT MERCURY RECOVERY UNITS

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1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper
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6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples

If a hazardous waste under an authorized State program.
Environmental Protection Agency

11. K106 and other wastewater treatment plant sludge and filter cake
12. Mercury cell sump and tank sludge
13. Mercury cell process solids
14. Recoverable levels of mercury contained in soil


PART 267—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE FACILITIES OPERATING UNDER A STANDARDIZED PERMIT

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§ 267.11 What must I do to comply with this subpart?

To comply with this subpart, you must obtain an identification number, and follow the requirements below for waste analysis, security, inspections, training, special waste handling, and location standards.

§ 267.12 How do I obtain an identification number?

You must apply to EPA for an EPA identification number following the EPA notification procedures and using EPA form 8700–12. You may obtain information and required forms from your state hazardous waste regulatory agency or from your EPA regional office.

§ 267.13 What are my waste analysis requirements?

(a) Before you treat or store any hazardous wastes, you must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information needed to treat or store the waste to comply with this part and 40 CFR part 268.

(1) You may include data in the analysis that was developed under 40 CFR part 261, and published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

(2) You must repeat the analysis as necessary to ensure that it is accurate and up to date. At a minimum, you must repeat the analysis if the process or operation generating the hazardous wastes has changed.

(b) You must develop and follow a written waste analysis plan that describes the procedures you will follow to comply with paragraph (a) of this section. You must keep this plan at the facility. If you receive wastes generated from off-site, and are eligible for a standardized permit, you also must have submitted the waste analysis plan with the Notice of Intent. At a minimum, the plan must specify all of the following:

(1) The hazardous waste parameters that you will analyze and the rationale for selecting these parameters (that is, how analysis for these parameters will provide sufficient information on the waste’s properties to comply with paragraph (a) of this section).

(2) The test methods you will use to test for these parameters.

(3) The sampling method you will use to obtain a representative sample of the waste to be analyzed. You may obtain a representative sample using either:

   (i) One of the sampling methods described in appendix I of 40 CFR part 261; or

   (ii) An equivalent sampling method.

(4) How frequently you will review or repeat the initial analysis of the waste to ensure that the analysis is accurate and up to date.

(5) Where applicable, the methods you will use to meet the additional waste analysis requirements for specific waste management methods as specified in 40 CFR 264.17, 264.1034(d), 264.1063(d), and 264.1083.

§ 267.14 What are my security requirements?

(a) You must prevent, and minimize the possibility for, livestock and unauthorized people from entering the active portion of your facility.

(b) Your facility must have:

   (1) A 24-hour surveillance system (for example, television monitoring or surveillance by guards or facility personnel) that continuously monitors and controls entry onto the active portion of the facility; or

   (2) An artificial or natural barrier (for example, a fence in good repair or a fence combined with a cliff) that completely surrounds the active portion of the facility; and

   (3) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (for example, an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(c) You must post a sign at each entrance to the active portion of a facility, and at other prominent locations, in sufficient numbers to be seen from any approach to this active portion.
The sign must bear the legend “Danger—Unauthorized Personnel Keep Out.” The legend must be in English and in any other language predominant in the area surrounding the facility (for example, facilities in counties bordering the Canadian province of Quebec must post signs in French, and facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. You may use existing signs with a legend other than “Danger—Unauthorized Personnel Keep Out” 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.

§ 267.15 What are my general inspection requirements?

(a) You must inspect your facility for malfunctions and deterioration, operator errors, and discharges that may be causing, or may lead to:

(1) Release of hazardous waste constituents to the environment; or

(2) A threat to human health. You must conduct these inspections often enough to identify problems in time to correct them before they result in harm to human health or the environment.

(b) You 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.

(1) You must keep this schedule at the facility.

(2) The schedule must identify the equipment and devices you will inspect and what problems you look for, such as malfunctions or deterioration of equipment (for example, inoperative sump pump, leaking fitting, etc.).

(3) The frequency of your inspections may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, 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 required in §§267.174, 267.193, 267.195, 267.1103, and 40 CFR 264.1033, 264.1052, 264.1053, 264.1058, and 264.1083 through 264.1089, where applicable.

(c) You must remedy any deterioration or malfunction of equipment or structures that the inspection reveals in time to prevent any environmental or human health hazard. Where a hazard is imminent or has already occurred, you must take remedial action immediately.

(d) You must record all inspections. You must keep these records for at least three years from the date of inspection. At a minimum, you 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.

§ 267.16 What training must my employees have?

(a) Your 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. You must ensure that this program includes all the elements described in the documents that are required under paragraph (d)(3) of this section.

(1) A person trained in hazardous waste management procedures must direct this program, and must teach facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to their employment positions.

(2) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by including instruction on emergency procedures, emergency equipment, and emergency systems, including all of the following, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
Environmental Protection Agency

§ 267.18 What are the standards for selecting the location of my facility?

(a) You may not locate portions of new facilities where hazardous waste
§ 267.30 Does this subpart apply to me?

This subpart applies to you if you own or operate a facility that treats or stores hazardous waste under a 40 CFR part 270, subpart J standardized permit, except as provided in §267.1(b).

§ 267.31 What are the general design and operation standards?

You must design, construct, maintain, and operate your facility 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 that could threaten human health or the environment.

§ 267.32 What equipment am I required to have?

Your facility must be equipped with all of 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.

(d) Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems.

§ 267.33 What are the testing and maintenance requirements for the equipment?

You must test and maintain all required facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, as necessary, to assure its proper operation in time of emergency.

§ 267.34 When must personnel have access to communication equipment or an 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 device is not required under §267.32.

(b) If just one employee is on the premises while the facility is operating, that person 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 not required under § 267.32.

§ 267.35 How do I ensure access for personnel and equipment during emergencies?
You must maintain enough 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, as appropriate, considering the type of waste being stored or treated.

§ 267.36 What arrangements must I make with local authorities for emergencies?
(a) You must attempt to make the following arrangements, as appropriate, for the type of waste handled at your 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) Agreements designating primary emergency authority to a specific police and a specific fire department where more than one police and fire department might respond to an emergency, 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.
(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.
(b) If State or local authorities decline to enter into such arrangements, you must document the refusal in the operating record.

Subpart D—Contingency Plan and Emergency Procedures

§ 267.50 Does this subpart apply to me?
This subpart applies to you if you own or operate a facility that treats or stores hazardous waste under a 40 CFR part 270, subpart J standardized permit, except as provided in §267.1(b).

§ 267.51 What is the purpose of the contingency plan and how do I use it?
(a) You must have a contingency plan for your facility. You must design the plan 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) You must implement the provisions of the plan immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

§ 267.52 What must be in the contingency plan?
(a) Your contingency plan must:
(1) Describe the actions facility personnel will take to comply with §§267.51 and 267.56 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.
(2) Describe all arrangements agreed upon under §267.36 by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.
(3) List names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §267.55), and you must keep the list 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.
(4) Include a current list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external),
§ 267.53 Who must have copies of the contingency plan?

(a) You must maintain a copy of the plan with all revisions at the facility; and
(b) You must submit a copy with all revisions to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

§ 267.54 When must I amend the contingency plan?

You must review, and immediately amend the contingency plan, if necessary, whenever:
(a) The facility permit is revised.
(b) The plan fails in an emergency.
(c) You change the facility (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) You change the list of emergency coordinators.
(e) You change the list of emergency equipment.

§ 267.55 What is the role of the emergency coordinator?

At least one employee must be either on the facility premises or on call at all times (that is, available to respond to an emergency by reaching the facility within a short period of time) who has 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.

§ 267.56 What are the required emergency procedures for the emergency coordinator?

(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 alarm 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:
(1) 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.
(2) 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. For example, the assessment would consider 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.
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§ 267.70 What must the emergency coordinator do after an emergency?

(c) 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, 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 the reporter.

(ii) Name and address of facility.

(iii) Time and type of incident (for example, a release or a fire).

(iv) Name and quantity of material(s) involved, to the extent known.

(v) The extent of injuries, if any.

(vi) The possible hazards to human health or the environment outside the facility.

(d) 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.

(e) 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, when appropriate.

§ 267.57 What must the emergency coordinator do after an emergency?

(b) 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.

2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

§ 267.58 What notification and record-keeping must I do after an emergency?

(a) You must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with §267.57(b) before operations are resumed in the affected area(s) of the facility.

(b) You must note the time, date, and details of any incident that requires implementing the contingency plan in the operating record. Within 15 days after the incident, you must submit a written report on the incident to the Regional Administrator. You must include the following in the report:

1. The name, address, and telephone number of the owner or operator.

2. The name, address, and telephone number of the facility.

3. The date, time, and type of incident (e.g., fire, explosion).

4. The 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.

7. The estimated quantity and disposition of recovered material that resulted from the incident.

Subpart E—Recordkeeping, Reporting, and Notifying

§ 267.70 Does this subpart apply to me?

This subpart applies to you if you own or operate a facility that stores or non-thermally treats a hazardous waste under a 40 CFR part 270, subpart J standardized permit, except as provided in §267.1(b). In addition, you must comply with the manifest requirements of 40 CFR part 262 whenever a shipment of hazardous waste is initiated from your facility.
§ 267.71 Use of the 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 §267.72(a)) on each copy of the manifest;
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 §267.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper. Note that the Agency does not intend that the owner or operator of a facility whose procedures under §267.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 267.72(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. Note that §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); and
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. The Agency notes that 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.

(d) Within three working days of the receipt of a shipment subject to 40 CFR part 262, subpart H, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and to competent authorities of all other concerned countries. The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

§ 267.72 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.

§ 267.73 What information must I keep?

(a) You must keep a written operating record at your facility.

(b) You must record the following information, as it becomes available, and maintain the operating record until you close the facility:

(1) A description and the quantity of each type of hazardous waste generated, and the method(s) and date(s) of its storage and/or treatment at the facility as required by Appendix I of 40 CFR part 264;

(2) The location of each hazardous waste within the facility and the quantity at each location;

(3) Records and results of waste analyses and waste determinations you perform as specified in §§ 267.13, 267.17, and 40 CFR 264.1034, 264.1063, 264.1083, and 268.7;

(4) Summary reports and details of all incidents that require you to implement the contingency plan as specified in §267.58(b));

(5) Records and results of inspections as required by §267.15(d) (except you need to keep these data for only three years);

(6) Monitoring, testing or analytical data, and corrective action when required by subpart F of this part and §§267.191, 267.193, 267.195, and 40 CFR 264.1034(c) through 264.1034(f), 264.1035, 264.1063(d) through 264.1063(i), 264.1064, 264.1068, 264.1089, and 264.1096;

(7) All closure cost estimates under §267.142;

(8) Your certification, at least annually, that you have a program in place to reduce the volume and toxicity of hazardous waste that you generate to the degree that you determine to be economically practicable; and that the proposed method of treatment or storage is that practicable method currently available to you that minimizes the present and future threat to human health and the environment;

(9) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required by you under 40 CFR 268.7; and

(10) For an on-site storage facility, the information in the notice (except the manifest number), and the certification and demonstration, if applicable, required by you under 40 CFR 268.7.

(11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under §268.7 or §268.8;

(12) For an off-site storage facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under §268.7 or §268.8.

§ 267.74 Who sees the records?

(a) You must furnish all records, including plans, required under this part upon the request of any officer, employee, or representative of EPA who is duly designated by the Administrator, and make them available at all reasonable times for inspection.

(b) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action involving the facility or as requested by the Administrator.

§ 267.75 What reports must I prepare and to whom do I send them?

You must prepare a biennial report and other reports listed in paragraph (b) of this section.

(a) Biennial report. You must prepare and submit a single copy of a biennial report to the Regional Administrator by March 1 of each even numbered
§ 267.76 What notifications must I make?

Before transferring ownership or operation of a facility during its operating life, you must notify the new owner or operator in writing of the requirements of this part and 40 CFR part 270, subpart J.

§ 267.101 What must I do to address corrective action for solid waste management units?

(a) You must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) The Regional Administrator will specify corrective action in the supplemental portion of your standardized permit in accordance with this section and 40 CFR part 264, subpart S. The Regional Administrator will include in the supplemental portion of your standardized permit schedules of compliance for corrective action (where corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing corrective action.

(c) You must implement corrective action beyond the facility property boundary, where necessary to protect human health and the environment, unless you demonstrate to the satisfaction of the Regional Administrator that, despite your best efforts, you were unable to obtain the necessary permission to undertake such actions. You are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. You must provide assurances of financial responsibility for such corrective action.
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(d) You do not have to comply with this section if you are the owner or operator of a remediation waste site unless your site is part of a facility that is subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

Subpart G—Closure

§ 267.110 Does this subpart apply to me?
This subpart applies to you if you own or operate a facility that treats or stores hazardous waste under a 40 CFR part 270, subpart J standardized permit, except as provided in §267.1(b).

§ 267.111 What general standards must I meet when I stop operating the unit?
You must close the storage and treatment units 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 constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and
(c) Meets the closure requirements of this subpart and the requirements of §§267.176, 267.201, and 267.1108. If you determine that, when applicable, the closure requirements of §267.201(tanks) or §267.1108 (containment buildings) cannot be met, then you must close the unit in accordance with the requirements that apply to landfills (§264.310). In addition, for the purposes of post-closure and financial responsibility, such a tank system or containment building is then considered to be a landfill, and you must apply for a post-closure care permit in accordance with 40 CFR part 270.

§ 267.112 What procedures must I follow?
(a) To close a facility, you must follow your approved closure plan, and follow notification requirements.
(1) Your closure plan must be submitted at the time you submitted your Notice of Intent to operate under a standardized permit. Final issuance of the standardized permit constitutes approval of the closure plan, and the plan becomes a condition of the RCRA standardized permit.
(2) The Director’s approval of the plan must ensure that the approved plan is consistent with §§267.111 through 267.115, 267.176, 267.201, and 267.1108.
(b) Satisfy the requirements for content of closure plan. The closure plan must identify steps necessary to perform partial and/or final closure of the facility. The closure plan must include, at least:
(1) A description of how each hazardous waste management unit at the facility subject to this subpart will be closed following §267.111.
(2) A description of how final closure of the facility will be conducted in accordance with §267.111. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility.
(3) An estimate of the maximum inventory of hazardous wastes ever on site during the active life of the facility and a detailed description of the methods you will use during partial and/or final closure, such as methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of off-site hazardous waste management units to be used, if applicable.
(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial or final closure. These might include procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard.
(5) A detailed description of other activities necessary during the closure period to ensure that partial or final closure satisfies the closure performance standards.
(6) A schedule for closure of each hazardous waste management unit, and for
§ 267.113 Will the public have the opportunity to comment on the plan?

(a) The Director will provide you and the public, when the draft standardized permit is public noticed, the opportunity to submit written comments on the plan and to the draft permit as allowed by 40 CFR 124.208. The Director will also, in response to a request or at his/her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the closure plan, and the permit.

(b) The Director will give public notice of the hearing 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.

§ 267.114 [Reserved]

§ 267.115 After I stop operating, how long until I must close?

(a) Within 90 days after the final volume of hazardous waste is sent to a unit, you must treat or remove from the unit all hazardous wastes following the approved closure plan.

(b) You must complete final closure activities in accordance with the approved closure plan within 180 days after the final volume of hazardous wastes is sent to the unit. The Director may approve an extension of 180 days to the closure period if you comply with all applicable requirements for requesting a modification to the permit and demonstrate that:

1. The final closure activities will take longer than 180 days to complete due to circumstances beyond your control, excluding ground water contamination; and

2. You have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed, but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

3. The demonstration must be made at least 30 days prior to the expiration of the initial 180-day period.
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§ 267.141 Definitions of terms as used in this subpart.

(a) Clos**ure**e plan means the plan for closure prepared in accordance with the requirements of §267.112.

(b) Current closure cost estimate means the most recent of the estimates prepared in accordance with §267.142(a), (b), and (c).

(c) [Reserved]

(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) [Reserved]

(f) The following terms are used in the specifications for the financial tests for closure 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 plugging and abandonment cost estimate means the most recent of the estimates prepared in accordance with §144.62(a), (b), and (c) of this chapter. 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.

Tangible net worth means the tangible assets that remain after deducting liabilities; such assets would not include...
§ 267.142 Cost estimate for closure.

(a) The owner or operator must have at the facility a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§267.111 through 267.115 and applicable closure requirements in §§267.176, 267.201, 267.1108.

(1) The estimate must equal the cost of final closure at the point in the facility’s active life when the extent and manner of its operation would make closure the most expensive, as indicated by the closure plan (see §267.112(b)); and

(2) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in §267.141(d).) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with §267.143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm’s fiscal year and before submission of updated information to the Regional Administrator as specified in §267.143(f)(2)(iii). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross Domestic Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b)(1) and (2) of this.
section. 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) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the Regional Administrator has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in §267.142(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 paragraphs (a) and (c) of this section and, when this estimate has been adjusted in accordance with paragraph (b) of this section, the latest adjusted closure cost estimate.

§267.143 Financial assurance for closure.

The owner or operator must establish financial assurance for closure of each storage or treatment unit that he owns or operates. In establishing financial assurance for closure, the owner or operator must choose from the financial assurance mechanisms in paragraphs (a), (b), (c), (d), (e), (f), and (g) of this section. The owner or operator can also use a combination of mechanisms for a single facility if they meet the requirement in paragraph (h) of this section, or may use a single mechanism for multiple facilities as in paragraph (i) of this section. The Regional Administrator will release the owner or operator from the requirements of this section after the owner or operator meets the criteria under paragraph (j) of this section.

(a) Closure Trust Fund. Owners and operators can use the "closure trust fund," that is specified in 40 CFR 264.143(a)(1) and (2), and 264.143(a)(6)–(11). For purposes of this paragraph, the following provisions also apply:

(1) Payments into the trust fund for a new facility must be made annually by the owner or operator over the remaining operating life of the facility as estimated in the closure plan, or over 3 years, whichever period is shorter. This period of time is hereafter referred to as the "pay-in period."

(2) For a new facility, the first payment into the closure trust fund must be made before the facility may accept the initial storage. A receipt from the Trustee must be submitted by the owner or operator to the Regional Administrator before this initial storage of waste. The first payment must be at least equal to the current closure cost estimate, divided by the number of years in the pay-in period, except as provided in paragraph (h) of this section for multiple mechanisms. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The owner or operator determines the amount of each subsequent payment by subtracting the current value of the trust fund from the current closure cost estimate, and dividing this difference by the number of years remaining in the pay-in period. Mathematically, the formula is:

\[
\text{Next Payment} = \frac{(\text{Current Closure Estimate} - \text{Current Value of the Trust Fund})}{\text{Years Remaining in the Pay-In Period}}.
\]

(3) The owner or operator of a facility existing on the effective date of this paragraph can establish a trust fund to meet this paragraph’s financial assurance requirements. If the value of the trust fund is less than the current closure cost estimate when a final approval of the permit is granted for the facility, the owner or operator must pay the difference into the trust fund within 60 days.

(4) The owner or operator may accelerate payments into the trust fund or deposit the full amount of the closure cost estimate when establishing the trust fund. 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)(2) or (a)(3) of this section.

(5) The owner or operator must submit a trust agreement with the wording specified in 40 CFR 264.151(a)(1).

(b) Surety Bond Guaranteeing Payment into a Closure Trust Fund. Owners and operators can use the “surety bond guaranteeing payment into a closure trust fund,” as specified in 40 CFR 264.143(b), including the use of the surety bond instrument specified at 40 CFR 264.151(b), and the standby trust specified at 40 CFR 264.143(b)(3).

(c) Surety Bond Guaranteeing Performance of Closure. Owners and operators can use the “surety bond guaranteeing performance of closure,” as specified in 40 CFR 264.143(c), the submission and use of the surety bond instrument specified at 40 CFR 264.151(c), and the standby trust specified at 40 CFR 264.143(c)(3).

(d) Closure Letter of Credit. Owners and operators can use the “closure letter of credit” specified in 40 CFR 264.143(d), the submission and use of the irrevocable letter of credit instrument specified at 40 CFR 264.151(d), and the standby trust specified at 40 CFR 264.143(d)(3).

(e) Closure Insurance. Owners and operators can use “closure insurance,” as specified in 40 CFR 264.143(e), utilizing the certificate of insurance for closure specified at 40 CFR 264.151(e).

(f) Corporate financial test. An owner or operator that satisfies the requirements of this paragraph may demonstrate financial assurance up to the amount specified in this paragraph:

(1) Financial component. (i) The owner or operator must satisfy one of the following three conditions:

(A) A current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor’s or Aaa, Aa, A or Baa as issued by Moody’s; or

(B) A ratio of less than 1.5 comparing total liabilities to net worth; or

(C) A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus $10 million, to total liabilities.

(ii) The tangible net worth of the owner or operator must be greater than:

(A) The sum of the current environmental obligations (see paragraph (f)(2)(i)(A)(1) of this section), including guarantees, covered by a financial test plus $10 million, except as provided in paragraph (f)(1)(ii)(B) of this section.

(B) $10 million in tangible net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements provided all of the environmental obligations (see paragraph (f)(2)(i)(A)(1) of this section) covered by a financial test are recognized as liabilities on the owner’s or operator’s audited financial statements, and subject to the approval of the Regional Administrator.

(iii) The owner or operator must have assets located in the United States amounting to at least the sum of environmental obligations covered by a financial test as described in paragraph (f)(2)(i)(A)(1) of this section.

(2) Recordkeeping and reporting requirements. (i) The owner or operator must submit the following items to the Regional Administrator:

(A) A letter signed by the owner’s or operator’s chief financial officer that:

(I) Lists all the applicable current types, amounts, and sums of environmental obligations covered by a financial test. These obligations include both obligations in the programs which EPA directly operates and obligations where EPA has delegated authority to a State or approved a State’s program. These obligations include, but are not limited to:

(i) Liability, closure, post-closure and corrective action cost estimates required for hazardous waste treatment, storage, and disposal facilities under 40 CFR 264.101, 264.142, 264.144, 264.147, 265.142, 265.144, and 265.147;

(ii) Cost estimates required for municipal solid waste management facilities under 40 CFR 258.71, 258.72, and 258.73;

(iii) Current plugging cost estimates required for UIC facilities under 40 CFR 144.62;

(iv) Cost estimates required for petroleum underground storage tank facilities under 40 CFR 280.93;

(e) Cost estimates required for PCB storage facilities under 40 CFR 761.65;
Any financial assurance required under, or as part of an action undertaken under, the Comprehensive Environmental Response, Compensation, and Liability Act; and

Any other environmental obligations that are assured through a financial test.

(2) Provides evidence demonstrating that the firm meets the conditions of either paragraph (f)(1)(i)(A) or (f)(1)(i)(B) or (f)(1)(i)(C) of this section and paragraphs (f)(1)(ii) and (f)(1)(iii) of this section.

(B) A copy of the independent certified public accountant’s unqualified opinion of the owner’s or operator’s financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner’s or operator’s financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Regional Administrator may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Regional Administrator deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Regional Administrator does not allow use of the test, the owner or operator must provide alternate financial assurance that meets the requirements of this section within 30 days after the notification of disallowance.

(C) If the chief financial officer’s letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraph (f)(1)(i)(B) or (f)(1)(i)(C) of this section that are different from data in the audited financial statements referred to in paragraph (f)(2)(i)(B) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner’s or operator’s independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer’s letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

(D) If the chief financial officer’s letter provides a demonstration that the firm has assured for environmental obligations as provided in paragraph (f)(1)(i)(B) of this section, then the letter shall include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least $10 million plus the amount of any guarantees provided.

(ii) The owner or operator of a new facility must submit the items specified in paragraph (f)(2)(i) of this section to the Regional Administrator at least 60 days before placing waste in the facility.

(iii) After the initial submission of items specified in paragraph (f)(2)(i) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days following the close of the owner or operator’s fiscal year. The Regional Administrator may provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in paragraph (f)(2)(i) of this section.

(iv) The owner or operator is no longer required to submit the items specified in this paragraph (f)(2) of this section or comply with the requirements of this paragraph (f) when:

(A) The owner or operator substitutes alternate financial assurance as specified in this section that is not subject to these recordkeeping and reporting requirements; or

(B) The Regional Administrator releases the owner or operator from the
requirements of this section in accordance with paragraph (j) of this section.

(v) An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section cannot use the financial test to demonstrate financial assurance. Instead an owner or operator who no longer meets the requirements of paragraph (f)(1) of this section, must:

(A) Send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The owner or operator must send this notice by certified mail within 90 days following the close of the owner or operator’s fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements of this section.

(B) Provide alternative financial assurance within 120 days after the end of such fiscal year.

(vi) 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 at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in paragraph (f)(2) of this section. If the Regional Administrator finds 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 that meets the requirements of this section.

(g) Corporate Guarantee. (1) An owner or operator may meet the requirements of this section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraph (f) of this section and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording in 40 CFR 264.151(h). The certified copy of the guarantee must accompany the letter from the guarantor’s chief financial officer and accountants’ opinions. If the guarantor’s parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor’s chief financial officer must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee.

(2) For a new facility, the guarantee must be effective and the guarantor must submit the items in paragraph (g)(1) of this section and the items specified in paragraph (f)(2)(i) of this section to the Regional Administrator at least 60 days before the owner or operator places waste in the facility.

(3) The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform closure at a facility covered by the guarantee, the guarantor will:

(A) Perform, or pay a third party to perform closure (performance guarantee); or

(B) Establish a fully funded trust fund as specified in paragraph (a) of this section in the name of the owner or operator (payment guarantee).

(ii) The guarantee will remain in force for as long as the owner or operator must comply with the applicable financial assurance requirements of this subpart unless the guarantor sends prior 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 notice of cancellation is given, the owner or operator must, within 90 days following receipt of the cancellation notice by the owner or operator and the Regional Administrator, obtain alternate financial assurance and submit documentation for that alternate financial assurance to the Regional Administrator. If the owner or
operator fails to provide alternate financial assurance and obtain the written approval of such alternative assurance from the Regional Administrator within the 90-day period, the guarantor must provide that alternate assurance in the name of the owner or operator and submit the necessary documentation for the alternative assurance to the Regional Administrator within 120 days of the cancellation notice.

(4) If a corporate guarantor no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must, within 90 days, obtain alternate assurance, and submit the assurance to the Regional Administrator for approval. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within the next 30 days, and submit it to the Regional Administrator for approval.

(5) The guarantor is no longer required to meet the requirements of this paragraph (g) when:

(i) The owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The owner or operator is released from the requirements of this section in accordance with paragraph (j) of this section.

(h) Use of Multiple Financial Mechanisms. An owner or operator may use more than one mechanism at a particular facility to satisfy the requirements of this section. The acceptable mechanisms are trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, insurance, the financial test, and the guarantee, except owners or operators cannot combine the financial test with the guarantee. The mechanisms must be as specified in paragraphs (a), (b), (d), (e), (f), and (g) respectively of this section, except it is the combination of mechanisms rather than a single mechanism that must provide assurance for an amount at least equal to the cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or letter of credit, he may use the trust fund as the standby trust for the other mechanisms. A single trust fund can 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.

(i) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial mechanism for multiple facilities, as specified in §264.143(h) of this chapter.

(j) 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 final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that the owner or operator is no longer required by this section to maintain financial assurance for final closure of the facility, unless the Regional Administrator has reason to believe that final closure has not been completed in accordance with the approved closure plan. The Regional Administrator shall provide the owner or operator with a detailed written statement of any such reasons to believe that closure has not been conducted in accordance with the approved closure plan.

§§ 267.144–267.146 [Reserved]

§ 267.147 Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment or storage 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 as specified in paragraphs (a)(1) through (a)(7) of this section:

(1) Trust fund for liability coverage. An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in 40 CFR 264.147(j)).
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(2) Surety bond for liability coverage. An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in 40 CFR 264.147(i).

(3) Letter of credit for liability coverage. An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in 40 CFR 264.147(h).

(4) Insurance for liability coverage. An owner or operator may meet the requirements of this section by obtaining liability insurance as specified in 40 CFR 264.147(a)(1).

(5) Financial test for liability coverage. An owner or operator may meet the requirements of this section by passing a financial test as specified in paragraph (f) of this section.

(6) Guarantee for liability coverage. An owner or operator may meet the requirements of this section by obtaining a guarantee as specified in paragraph (g) of this section.

(7) Combination of mechanisms. An owner or operator may demonstrate the required liability coverage through the use of combinations of mechanisms as allowed by 40 CFR 264.147(a)(6).

(8) An owner or operator shall notify the Regional Administrator in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (a)(1) through (a)(7) of this section; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (a)(1) through (a)(7) of this section; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (a)(1) through (a)(7) of this section.  

(b)-(d) [Reserved]

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required by this section to maintain liability coverage from that facility, unless the Regional Administrator has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for Liability Coverage. An owner or operator that satisfies the requirements of this paragraph (f) may demonstrate financial assurance for liability up to the amount specified in this paragraph (f):

(1) Financial component. (i) If using the financial test for only liability coverage, the owner or operator must have tangible net worth greater than the sum of the liability coverage to be demonstrated by this test plus $10 million.

(ii) The owner or operator must have assets located in the United States amounting to at least the amount of liability covered by this financial test.

(iii) An owner or operator who is demonstrating coverage for liability and any other environmental obligations, including closure under § 267.143(f), through a financial test must meet the requirements of § 267.143(f).

(2) Recordkeeping and reporting requirements.

(i) The owner or operator must submit the following items to the Regional Administrator:

(A) A letter signed by the owner’s or operator’s chief financial officer that provides evidence demonstrating that the firm meets the conditions of paragraphs (f)(1)(i) and (f)(1)(ii) of this section. If the firm is providing only liability coverage through a financial test for a facility or facilities with a permit under § 267, the letter should use the wording in § 267.151(b). If the firm is providing only liability coverage through a financial test for facilities regulated under part 267 and also part
Environmental Protection Agency § 267.147

264 or part 265, it should use the letter in § 264.151(g). If the firm is providing liability coverage through a financial test for a facility or facilities with a permit under §267, and it assures closure costs or any other environmental obligations through a financial test, it must use the letter in §267.151(a) for the facilities issued a permit under §267.

(B) A copy of the independent certified public accountant’s unqualified opinion of the owner’s or operator’s financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner’s or operator’s financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Regional Administrator may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Regional Administrator deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Regional Administrator does not allow use of the test, the owner or operator must provide alternate financial assurance that meets the requirements of this section (§267.147) within 30 days after the notification of disallowance.

(C) If the chief financial officer’s letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraphs (f)(1)(i) and (ii) of this section that are different from data in the audited financial statements referred to in paragraph (f)(2)(i)(B) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner’s or operator’s independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer’s letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

(ii) The owner or operator of a new facility must submit the items specified in paragraph (f)(2)(i) of this section to the Regional Administrator at least 60 days before placing waste in the facility.

(iii) After the initial submission of items specified in paragraph (f)(2)(i) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days following the close of the owner or operator’s fiscal year. The Regional Administrator may provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in paragraph (f)(2)(i) of this section.

(iv) The owner or operator is no longer required to submit the items specified in this paragraph (f)(2) or comply with the requirements of this paragraph (f) when:

(A) The owner or operator substitutes alternate financial assurance as specified in this section that is not subject to these recordkeeping and reporting requirements; or

(B) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with paragraph (j) of this section.

(v) An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section cannot use the financial test to demonstrate financial assurance. An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section, must:

(A) Send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The owner or operator must send this notice by certified mail within 90 days following the close of the owner or operator’s fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements of this section.
(B) Provide alternative financial assurance within 120 days after the end of such fiscal year.

(vi) 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 at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in paragraph (f)(2) of this section. If the Regional Administrator finds 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 that meets the requirements of this section.

(g) Guarantee for liability coverage. (1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as “guarantee.” The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(3) of this section. The wording of the guarantee must be identical to the wording specified in 40 CFR 264.151(h)(2). A certified copy of the guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(2) of this section. One of these items must be the letter from the guarantor’s chief financial officer. If the guarantor’s parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden accidental occurrences arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of the State in which the guarantor is incorporated, and each State in which a facility covered by the guarantee is located, have submitted a written statement to EPA that a guarantee executed as described in this section and 40 CFR 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if:

(A) The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business; and

(B) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and of the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and 40 CFR 264.151(h)(2) is a legally valid and enforceable obligation in that State.

[70 FR 53453, Sept. 8, 2005, as amended at 71 FR 40278, July 14, 2006]
§ 267.151 Wording of the instruments.

(a) The chief financial officer of an owner or operator of a facility with a standardized permit who uses a financial test to demonstrate financial assurance for that facility must complete a letter as specified in § 267.143(f) of this chapter. The letter must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

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 for closure costs, as specified in [insert “subpart H of 40 CFR part 267” or the citation to the corresponding state regulation]. This firm qualifies for the financial test on the basis of having [insert “a current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor’s or Aaa, Aa, A or Baa as issued by Moody’s” or “a ratio of less than 1.50 comparing total liabilities to net worth” or “a ratio of greater than 0.10

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§§ 267.143(g) and 267.147 (g) 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 § 267.143 or § 267.147 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.

§ 267.149 [Reserved]

§ 267.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the 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 § 267.143 or § 267.147 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: Certainty of the availability of funds for the required closure care activities or liability coverage; and 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 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 § 267.143 or § 267.147, 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.
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comparing the sum of net income plus depreciation, depletion and amortization, minus $10 million, to total liabilities.""

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].

[If this firm qualifies on the basis of its bond rating fill in the requested information: "This firm has a rating of its senior unsecured debt of" [insert the bond rating] "from" [insert "Standard and Poor's" or "Moody's"]. Complete Line 1. Total Liabilities below and then skip the remaining questions in the next section and resume completing the form at the section entitled Obligations Covered by a Financial Test or Corporate Guarantee.]

[If this firm qualifies for the financial test on the basis of its ratio of liabilities to net worth, or sum of income, depreciation, depletion, and amortization to net worth, please complete the following section.]

*1. Total Liabilities .... $
*2. Net Worth .............. $ 
*3. Net Income ............ $ 
*4. Depreciation .......... $ 
*5. Depletion (if applicable) ....................... $ 
*6. Amortization ......... $ 
*7. Sum of Lines 3., 4., 5. & 6 ........................ $ 

[If the above figures are taken directly from the most recent audited financial statements for this firm insert: "The above figures are taken directly from the most recent audited financial statements for this firm." If they are not, insert: "The following items are not taken directly from the firm’s most recent audited financial statements" [insert the numbers of the items and attach an explanation of how they were derived].]

[Complete the following calculations]

8. Line 1. ÷ Line 2. = ....
9. Line 7. ÷ Line 1. = ....

Is Line 8. less than 1.5? Yes No

Is Line 9 greater than 0.10? Yes No

[If you did not answer Yes to either of these two questions, you cannot use the financial test and need not complete this letter. Instead, you must notify the permitting authority for the facility that you intend to establish alternate financial assurance as specified in 40 CFR 267.143. The owner or operator must send this notice by certified mail within 90 days following the close of the owner or operator’s fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements of this section. The owner or operator must also provide alternative financial assurance within 120 days after the end of such fiscal year.]

Obligations Covered by a Financial Test or Corporate Guarantee

[On the following lines list all obligations that are covered by a financial test or a corporate guarantee extended by your firm. You may add additional lines and leave blank entries that do not apply to your situation.]
Environmental Protection Agency

Underground Injection Control

PCB Storage Facility Name and ID

Any financial assurance required under, or as part of an action undertaken under, the Comprehensive Environmental Response, Compensation, and Liability Act.

<table>
<thead>
<tr>
<th>Site name</th>
<th>State</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$</td>
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</table>

Any other environmental obligations that are assured through a financial test.

<table>
<thead>
<tr>
<th>Name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
</tr>
</tbody>
</table>

*10. Total of all amounts $ 

*11. Line 10 + $10,000,000 = $ 

*12. Total Assets $ 

*13. Intangible Assets $ 

*14. Tangible Assets (Line 12 – Line 13) $ 

*15. Tangible Net Worth (Line 14 – Line 1) $ 

*16. Assets in the United States $ 

Is Line 15 greater than Line 11? Yes No 

Is Line 16 no less than Line 10? Yes No 

[You must be able to answer Yes to both these questions to use the financial test for this facility.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 267.151 as such regulations were constituted on the date shown immediately below.

(Signature) ____________________________

(Name) ________________________________

(Title) ________________________________

(Date) ________________________________

[After completion, a signed copy of the form must be sent to the permitting authority of the state or territory where the facility is located. In addition, a signed copy must be sent to every authority who (1) requires a demonstration through a financial test for each of the other obligations in the letter that are assured through a financial test, or (2) accepts a guarantee for an obligation listed in this letter.)

(b) The chief financial officer of an owner or operator of a facility with a standardized permit who use a financial test to demonstrate financial assurance only for third party liability for that (or other standardized permit) facility(ies) must complete a letter as specified in Section 267.147(f) of this chapter. The letter must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

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 for third party liability, as specified in [insert “subpart H of 40 CFR part 267” or the citation to the corresponding state regulation]. This firm qualifies for the financial test on the basis of having tangible net worth of at least $10 million more than the amount of liability coverage and assets in the United States of at least the amount of liability coverage.

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].

[Please complete the following section.]

*1. Total Assets .......... $ 

*2. Intangible Assets ... $ 

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§ 267.170 Does this subpart apply to me?

This subpart applies to you if you own or operate a facility that treats or stores hazardous waste in containers under a 40 CFR part 270 subpart J standardized permit, except as provided in §267.1(b).

§ 267.171 What standards apply to the containers?

Standards apply to the condition of the containers, to the compatibility of waste with the containers, and to the management of the containers.

(a) Condition of containers. If a container holding hazardous waste is not in good condition (for example, it exhibits severe rusting or apparent structural defects) or if it begins to leak, you must either:

(1) Transfer the hazardous waste from this container to a container that is in good condition; or

(2) Manage the waste in some other way that complies with the requirements of this part.

(b) Compatibility of waste with containers. To ensure that the ability of the container to contain the waste is not impaired, you must use a container made of or lined with materials that are compatible and will not react with the hazardous waste to be stored.

(c) Management of containers. (1) You must always keep a container holding hazardous waste closed during storage, except when you add or remove waste.

(2) You must never open, handle, or store a container holding hazardous waste in a manner that may rupture the container or cause it to leak.

§ 267.172 What are the inspection requirements?

At least weekly, you must inspect areas where you store containers, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

§ 267.173 What standards apply to the container storage areas?

(a) You must design and operate a containment system for your container storage areas according to the requirements in paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.

(b) The design and operating requirements for a containment system are:

(1) A base must underlie the containers that 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
§ 267.190 Does this subpart apply to me?

This subpart applies to you if you own or operate a facility that treats or stores hazardous waste in above-ground or on-ground tanks under a 40 CFR part 270 subpart J standardized permit, except as provided in §267.1(b).

(a) You do not have to meet the secondary containment requirements in §267.195 if your tank systems do not contain free liquids and are situated inside a building with an impermeable floor. You must demonstrate the absence or presence of free liquids in the stored-treated waste, using Method
§ 267.191 What are the required design and construction standards for new tank systems or components?

You must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. You must obtain a written assessment, reviewed and certified by an independent, qualified registered professional engineer, following 40 CFR 270.11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

(a) Design standard(s) for the construction of tank(s) and/or the ancillary equipment.

(b) Hazardous characteristics of the waste(s) to be handled.

(c) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(1) Factors affecting the potential for corrosion, such as:
   (i) Soil moisture content.
   (ii) Soil pH.
   (iii) Soil sulfides level.
   (iv) Soil resistivity.
   (v) Structure to soil potential.
   (vi) Existence of stray electric current.
   (vii) Existing corrosion-protection measures (for example, coating, cathodic protection).

(2) The type and degree of external corrosion protection needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:
   (i) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.
   (ii) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (for example, impressed current or sacrificial anodes) and
   (iii) Electrical isolation devices such as insulating joints, flanges, etc.

(d) Design considerations to ensure that:

(1) Tank foundations will maintain the load of a full tank.

(2) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of § 267.18(a).

(3) Tank systems will withstand the effects of frost heave.

§ 267.192 What handling and inspection procedures must I follow during installation of new tank systems?

(a) You must ensure that you follow proper handling procedures to prevent damage to a new tank system during installation. Before placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

(1) Weld breaks.

(2) Punctures.

(3) Scrapes of protective coatings.

(4) Cracks.

(5) Corrosion.

(6) Other structural damage or inadequate construction/installation.

(b) You must remedy all discrepancies before the tank system is placed in use.

§ 267.193 What testing must I do?

You must test all new tanks and ancillary equipment for tightness before
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§ 267.196 What are the required devices for secondary containment and what are their design, operating and installation requirements?

(a) Secondary containment for tanks must include one or more of the following:
(1) A liner (external to the tank).
(2) A double-walled tank.
(3) An equivalent device; you must maintain documentation of equivalency at the facility.

(b) External liner systems must be:
(1) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.
(2) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(3) Free of cracks or gaps.

(4) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (that is, capable of preventing lateral as well as vertical migration of the waste).

(c) Double-walled tanks must be:
(1) Designed as an integral structure (that is, an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell.

(2) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell.

(3) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours.

§ 267.197 What are the requirements for ancillary equipment?

You must provide ancillary equipment with secondary containment (for example, trench, jacketing, double-walled piping) that meets the requirements of §267.195 (a) and (b), except for:

(a) Above ground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

(b) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

(c) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(d) Pressurized above ground piping systems with automatic shut-off devices (for example, excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

§ 267.199 What inspection requirements must I meet?

You must comply with the following requirements for scheduling, conducting, and documenting inspections.

(a) Develop and follow a schedule and procedure for inspecting overfill controls.

(b) Inspect at least once each operating day:
(1) Aboveground portions of the tank system to detect corrosion or releases of waste.

(2) Data gathered from monitoring and leak detection equipment (for example, pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.

(3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (for example, dikes) to detect erosion or signs of releases of hazardous waste (for example, wet spots, dead vegetation).

(c) Inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to
ensure that they are functioning properly:

(1) Confirm that the cathodic protection system is operating properly within six months after initial installation and annually thereafter.

(2) Inspect and/or test all sources of impressed current, as appropriate, at least every other month.

(d) Document, in the operating record of the facility, an inspection of those items in paragraphs (a) through (c) of this section.

§ 267.200 What must I do in case of a leak or a spill?

If there has been a leak or a spill from a tank system or secondary containment system, or if either system is unfit for use, you must remove the system from service immediately, and you must satisfy the following requirements:

(a) Immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Remove the waste from the tank system or secondary containment system.

(1) If the release was from the tank system, you must, within 24 hours after detecting the leak, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, you must remove all released materials within 24 hours or as quickly as possible to prevent harm to human health and the environment.

(c) Immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water.

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Report any release to the environment, except as provided in paragraph (d)(1) of this section, to the Regional Administrator within 24 hours of its detection. If you have reported the release pursuant to 40 CFR part 302, that report will satisfy this requirement.

(1) You need not report on a leak or spill of hazardous waste if it is:

(i) Less than or equal to a quantity of one (1) pound; and

(ii) Immediately contained and cleaned up.

(2) Within 30 days of detection of a release to the environment, you must submit a report to the Regional Administrator containing the following information:

(i) The likely route of migration of the release.

(ii) The characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate).

(iii) The results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, you must submit these data to the Regional Administrator as soon as they become available.

(iv) The proximity to downgradient drinking water, surface water, and populated areas.

(v) A description of response actions taken or planned.

(e) Either close the system or make necessary repairs.

(1) Unless you satisfy the requirements of paragraphs (e)(2) and (3) of this section, you must close the tank system according to §267.201.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, you may return the system to service as soon as you remove the released waste and make any necessary repairs.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, you must repair the system before returning the tank system to service.

(f) If you have made extensive repairs to a tank system in accordance with paragraph (e) of this section (for example, installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), you may not return the tank system to service unless the repair is certified by an independent, qualified, registered, professional engineer in accordance with 40 CFR 270.11(d).
§ 267.201 What must I do when I stop operating the tank system?

When you close a tank system, you must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless 40 CFR 261.3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in subparts G and H of this part.

§ 267.202 What special requirements must I meet for ignitable or reactive wastes?

(a) You may not place ignitable or reactive waste in tank systems, unless:

(1) You treat, render, or mix the waste before or immediately after placement in the tank system so that:

(i) You comply with § 267.17(b); and

(ii) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this chapter; or

(2) You store or treat the waste in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) You use the tank system solely for emergencies.

(b) If you store or treat ignitable or reactive waste in a tank, you must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required 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 40 CFR 260.11).

§ 267.203 What special requirements must I meet for incompatible wastes?

(a) You may not place incompatible wastes, or incompatible wastes and materials, in the same tank system, unless you comply with § 267.17(b).

(b) You may not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless you comply with § 267.17(b).

§ 267.204 What air emission standards apply?

You must manage all hazardous waste placed in a tank following the requirements of subparts AA, BB, and CC of 40 CFR part 264. Under a standardized permit, the following control devices are permissible: Thermal vapor incinerator, catalytic vapor incinerator, flame, boiler, process heater, condenser, and carbon absorption unit.
(a) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

(b) The floor and containment walls of the unit, including the secondary containment system, if required under §267.1103, must be designed and constructed of manmade materials of sufficient strength and thickness to:

1. Support themselves, the waste contents, and any personnel and heavy equipment that operates within the unit.

2. Prevent failure due to:
   (i) Pressure gradients, settlement, compression, or uplift.
   (ii) Physical contact with the hazardous wastes to which they are exposed.
   (iii) Climatic conditions.
   (iv) Stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls.
   (v) Collapse or other failure.

(c) All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes.

(d) You must not place incompatible hazardous wastes or treatment reagents in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(e) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(f) If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

1. They provide an effective barrier against fugitive dust emissions under §267.1102(d).

(g) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(g) You must inspect and record in the facility’s operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(h) You must obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of §§267.1102, 267.1103, and paragraphs (a) through (f) of this section.

§267.1102 What other requirements must I meet to prevent releases?

You must use controls and practices to ensure containment of the hazardous waste within the unit, and must, at a minimum:

(a) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier.

(b) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded.

(c) Take measures to prevent personnel or by equipment used in handling the waste from tracking hazardous waste out of the unit. You must designate an area to decontaminate equipment, and you must collect and properly manage any rinsate.

(d) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR part 60, appendix A, Method 22—Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, you must operate and maintain all associated particulate collection devices (for example, fabric filter, electrostatic precipitator) with sound air pollution control practices. You must effectively maintain this state of no visible emissions at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.
§ 267.1103 What additional design and operating standards apply if liquids will be in my containment building?

If your containment building will be used to manage hazardous wastes containing free liquids or treated with free liquids, as determined by the paint filter test, by a visual examination, or by other appropriate means, you must include:

(a) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (for example, a geomembrane covered by a concrete wear surface).

(b) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building.
   (1) The primary barrier must be sloped to drain liquids to the associated collection system; and
   (2) You must collect and remove liquids and waste to minimize hydraulic head on the containment system at the earliest practicable time.

(c) A secondary containment system, including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practical time.
   (1) You may meet the requirements of the leak detection component of the secondary containment system by installing a system that is, at a minimum:
      (i) Constructed with a bottom slope of 1 percent or more; and
      (ii) Constructed of a granular drainage material with a hydraulic conductivity of $1 \times 10^{-2}$ cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of $3 \times 10^{-5}$ m$^2$sec or more.
   (2) If you will be conducting treatment in the building, you must design the area in which the treatment will be conducted to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.
   (3) You must construct the secondary containment system using materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building.

§ 267.1104 How may I obtain a waiver from secondary containment requirements?

Notwithstanding any other provision of this subpart, the Regional Administrator may waive requirements for secondary containment for a permitted containment building where:

(a) You demonstrate that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and

(b) Containment of managed wastes and dust suppression liquids can be assured without a secondary containment system.

§ 267.1105 What do I do if my containment building contains areas both with and without secondary containment?

For these containment buildings, you must:

(a) Design and operate each area in accordance with the requirements enumerated in §§ 267.1101 through 267.1103.

(b) Take measures to prevent the release of liquids or wet materials into areas without secondary containment.

(c) Maintain in the facility’s operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

§ 267.1106 What do I do if I detect a release?

Throughout the active life of the containment building, if you detect a condition that could lead to or has caused a release of hazardous waste, you must repair the condition promptly, in accordance with the following procedures.

(a) Upon detection of a condition that has lead to a release of hazardous waste (for example, upon detection of leakage from the primary barrier), you must:
   (1) Enter a record of the discovery in the facility operating record;
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(2) Immediately remove the portion of the containment building affected by the condition from service;
(3) Determine what steps you must take to repair the containment building, to remove any leakage from the secondary collection system, and to establish a schedule for accomplishing the cleanup and repairs; and
(4) Within 7 days after the discovery of the condition, notify the Regional Administrator of the condition, and within 14 working days, provide a written notice to the Regional Administrator with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(b) The Regional Administrator will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify you of the determination and the underlying rationale in writing.
(c) Upon completing all repairs and cleanup, you must notify the Regional Administrator in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with paragraph (a)(4) of this section.

§ 267.1107 Can a containment building itself be considered secondary containment?
Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions.
(a) A containment building can serve as an external liner system for a tank, provided it meets the requirements of §267.196(a).
(b) The containment building must also meet the requirements of §267.195(a), (b)(1) and (2) to be considered an acceptable secondary containment system for a tank.

§ 267.1108 What must I do when I stop operating the containment building?
When you close a containment building, you 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. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in subparts G and H of this part.

PART 268—LAND DISPOSAL RESTRICTIONS

Subpart A—General

Sec.
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268.35 Waste specific prohibitions—petroleum refining wastes.
§ 268.1 Purpose, scope, and applicability.

(a) This part identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Except as specifically provided otherwise in this part or part 261 of this chapter, the requirements of this part apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

(c) Restricted wastes may continue to be land disposed as follows:

1. Where persons have been granted an extension to the effective date of a prohibition under subpart C of this part or pursuant to §268.5, with respect to those wastes covered by the extension;

2. Where persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;

3. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under this part, or part 148 of this chapter, are not prohibited if the wastes:

   i. Are disposed into a nonhazardous or hazardous injection well as defined under 40 CFR 146.8(a); and

   ii. Do not exhibit any prohibited characteristic of hazardous waste identified in 40 CFR part 261, subpart C at the point of injection.

4. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under this part, are not prohibited if the wastes meet any of the following criteria, unless the wastes are subject to a specified method of treatment other than DEACT in §268.40, or hazardous cyanide:

   i. The wastes are managed in a treatment system which subsequently discharges to waters of the U.S. pursuant to a permit issued under section 402 of the Clean Water Act; or

   ii. The wastes are treated for purposes of the pretreatment requirements.
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§ 268.2 Definitions applicable in this part.

When used in this part the following terms have the meanings given below:

(a) Halogenated organic compounds or HOCs means those compounds having a carbon-halogen bond which are listed under appendix III to this part.

(b) Hazardous constituent or constituents means those constituents listed in appendix VIII to part 261 of this chapter.

(c) Land disposal means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

(d) Nonwastewaters are wastes that do not meet the criteria for wastewaters in paragraph (f) of this section.

(e) Polychlorinated biphenyls or PCBs are halogenated organic compounds defined in accordance with 40 CFR 761.3.

(f) Wastewaters are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS).

(g) Debris means solid material exceeding a 60 mm particle size that is intended for disposal and that is: A manufactured object; or plant or animal
§268.3 Dilution prohibited as a substitute for treatment.

(a) Except as provided in paragraph (b) of this section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with subpart D of this part, to circumvent the effective date of a prohibition in subpart C of this part, to otherwise avoid a prohibition in subpart C of this part, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

(b) Dilution of wastes that are hazardous only because they exhibit a characteristic in treatment systems which include land-based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act (CWA), or which treat wastes for the purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of this section unless a method other than DEACT has been specified in §268.40 as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

(c) Combustion of the hazardous waste codes listed in Appendix XI of this part is prohibited, unless the waste is a D003 reactive cyanide wastewater or nonwastewater.
with one or more of the following criteria (unless otherwise specifically prohibited from combustion):

1. The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in § 268.48;
2. The waste consists of organic, debris-like materials (e.g., wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;
3. The waste, at point of generation, has reasonable heating value such as greater than or equal to 5000 BTU per pound;
4. The waste is co-generated with wastes for which combustion is a required method of treatment;
5. The waste is subject to Federal and/or State requirements necessitating reduction of organics (including biological agents); or
6. The waste contains greater than 1% Total Organic Carbon (TOC).

It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes (wastes exhibiting a characteristic due to the presence of lead), all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

(a) Wastes which are otherwise prohibited from land disposal under this part may be treated in a surface impoundment or series of impoundments provided that:

1. Treatment of such wastes occurs in the impoundments;
2. The following conditions are met:
   i. Sampling and testing. For wastes with treatment standards in subpart D of this part and/or prohibition levels in subpart C of this part or RCRA section 3004(d), the residues from treatment are analyzed, as specified in §268.7 or §268.32, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under §264.13 or §265.13, must be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.
   ii. Removal. The following treatment residues (including any liquid waste) must be removed at least annually; residues which do not meet the treatment standards promulgated under subpart D of this part; residues which do not meet the prohibition levels established under subpart C of this part or imposed by statute (where no treatment standards have been established); residues which are from the treatment of wastes prohibited from land disposal under subpart C of this part (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under §260.22 of this chapter. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.
   iii. Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management.
   iv. Recordkeeping. Sampling and testing and recordkeeping provisions of §§264.13 and 265.13 of this chapter apply.

(b) The impoundment meets the design requirements of §264.221(c) or §265.221(a) of this chapter, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of subpart F of part 264 or part 265 of this chapter unless:

1. Exempted pursuant to §264.221 (d) or (e) of this chapter; or to §265.221 (c) or (d) of this chapter; or,
(ii) Upon application by the owner or operator, the Administrator, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:

(A) Has at least one liner, for which there is no evidence that such liner is leaking;

(B) Is located more than one-quarter mile from an underground source of drinking water; and

(C) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or,

(iii) Upon application by the owner or operator, the Administrator, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(4) The owner or operator submits to the Regional Administrator a written certification that the requirements of §268.4(a)(3) have been met. The following certification is required:

I certify under penalty of law that the requirements of 40 CFR 268.4(a)(3) have been met for all surface impoundments being used to treat restricted wastes. 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) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this section.

§268.5 Procedures for case-by-case extensions to an effective date.

(a) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the Administrator for an extension to the effective date of any applicable restriction established under subpart C of this part. The applicant must demonstrate the following:

(1) He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under subpart C of this part;

(2) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in subpart D or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

(3) Due to circumstances beyond the applicant’s control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;

(4) The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application;

(5) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(6) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(7) Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of paragraph (h)(2) of this section.

(b) An authorized representative signing an application described under paragraph (a) of this section shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my
inquiry of those individuals immediately re-
sponsible for obtaining the information, I be-
lieve that the information is true, accurate,
and complete. I am aware that there are sig-
ificant penalties for submitting false infor-
mation, including the possibility of fine and
imprisonment.

(c) After receiving an application for
an extension, the Administrator may
request any additional information
which he deems as necessary to evaluate
the application.

(d) An extension will apply only to
the waste generated at the individual
facility covered by the application and
will not apply to restricted waste from
any other facility.

(e) On the basis of the information
referred to in paragraph (a) of this sec-
tion, after notice and opportunity for
comment, and after consultation with
appropriate State agencies in all af-
ected States, the Administrator may
grant an extension of up to 1 year from
the effective date. The Administrator
may renew this extension for up to 1
additional year upon the request of the
applicant if the demonstration required
in paragraph (a) of this section can
still be made. In no event will an ex-
tension extend beyond 24 months from
the applicable effective date specified
in subpart C of part 268. The length of
any extension authorized will be deter-
mined by the Administrator based on
the time required to construct or ob-
tain the type of capacity needed by the
applicant as described in the complet-
tion schedule discussed in paragraph
(a)(5) of this section. The Adminis-
trator will give public notice of the in-
tent to approve or deny a petition and
provide an opportunity for public com-
ment. The final decision on a petition
will be published in the FEDERAL REG-
ISTER.

(f) Any person granted an extension
under this section must immediately
notify the Administrator as soon as he
has knowledge of any change in the
conditions certified to in the applica-
tion.

(g) Any person granted an extension
under this section shall submit written
progress reports at intervals des-
ignated by the Administrator. Such re-
ports must describe the overall
progress made toward constructing or
otherwise providing alternative treat-
ment, recovery or disposal capacity;
must identify any event which may
cause or has caused a delay in the de-
velopment of the capacity; and must
summarize the steps taken to mitigate
the delay. The Administrator can re-
voke the extension at any time if the
applicant does not demonstrate a good-
faith effort to meet the schedule for
completion, if the Agency denies or re-
vokes any required permit, if condi-
tions certified in the application
change, or for any violation of this
chapter.

(h) Whenever the Administrator es-
tablishes an extension to an effective
date under this section, during the pe-
period for which such extension is in ef-
fact:

1. The storage restrictions under
§268.50(a) do not apply; and

2. Such hazardous waste may be dis-
posed in a landfill or surface impound-
ment only if such unit is in compliance
with the technical requirements of the
following provisions regardless of
whether such unit is existing, new, or a
replacement or lateral expansion.

(i) The landfill, if in interim status,
is in compliance with the requirements
of subpart F of part 265 and §265.301 (a),
(c), and (d) of this chapter; or,

(ii) The landfill, if permitted, is in
compliance with the requirements of
subpart F of part 264 and §264.301 (c),
(d) and (e) of this chapter; or

(iii) The surface impoundment, if in
interim status, is in compliance with the
requirements of subpart F of part 265, §265.221 (a), (c), and (d) of this
chapter, and RCRA section 3005(j)(1); or

(iv) The surface impoundment, if per-
mitted, is in compliance with the re-
quirements of subpart F of part 264 and
§264.221 (c), (d) and (e) of this chapter;
or

(v) The surface impoundment, if
newly subject to RCRA section
3005(j)(1) due to the promulgation of ad-
dditional listings or characteristics for
the identification of hazardous waste,
is in compliance with the requirements
of subpart F of part 265 of this chapter
within 12 months after the promulga-
tion of additional listings or character-
istics of hazardous waste, and with the
requirements of §265.221 (a), (c) and (d)
of this chapter within 48 months after
the promulgation of additional listings
or characteristics of hazardous waste.
If a national capacity variance is granted, during the period the variance is in effect, the surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics of hazardous waste, is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of §265.221 (a), (c) and (d) of this chapter within 48 months after the promulgation of additional listings or characteristics of hazardous waste; or

(vi) The landfill, if disposing of containerized liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm, is also in compliance with the requirements of 40 CFR 761.75 and parts 264 and 265.

(i) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

§268.6 Petitions to allow land disposal of a waste prohibited under subpart C of part 268.

(a) Any person seeking an exemption from a prohibition under subpart C of this part for the disposal of a restricted hazardous waste in a particular unit or units must submit a petition to the Administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration must include the following components:

(1) An identification of the specific waste and the specific unit for which the demonstration will be made;

(2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;

(3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality.

(4) A monitoring plan that detects migration at the earliest practicable time;

(5) Sufficient information to assure the Administrator that the owner or operator of a land disposal unit receiving restricted waste(s) will comply with other applicable Federal, State, and local laws.

(b) The demonstration referred to in paragraph (a) of this section must meet the following criteria:

(1) All waste and environmental sampling, test, and analysis data must be accurate and reproducible to the extent that state-of-the-art techniques allow;

(2) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters must have been approved by the Administrator;

(3) Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;

(4) A quality assurance and quality control plan that addresses all aspects of the demonstration must be approved by the Administrator; and,

(5) An analysis must be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis must include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(c) Each petition referred to in paragraph (a) of this section must include the following:

(1) A monitoring plan that describes the monitoring program installed at and/or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan must provide information on the monitoring of the unit and/or the environment around the unit. The following specific information must be included in the plan:

(i) The media monitored in the cases where monitoring of the environment around the unit is required;

(ii) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;
(iii) The location of the monitoring stations;
(iv) The monitoring interval (frequency of monitoring at each station);
(v) The specific hazardous constituents to be monitored;
(vi) The implementation schedule for the monitoring program;
(vii) The equipment used at the monitoring stations;
(viii) The sampling and analytical techniques employed; and
(ix) The data recording/reporting procedures.

(2) Where applicable, the monitoring program described in paragraph (c)(1) of this section must be in place for a period of time specified by the Administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.

(3) The monitoring data collected according to the monitoring plan specified under paragraph (c)(1) of this section must be sent to the Administrator according to a format and schedule specified and approved in the monitoring plan, and

(4) A copy of the monitoring data collected under the monitoring plan specified under paragraph (c)(1) of this section must be kept on-site at the facility in the operating record.

(5) The monitoring program specified under paragraph (c)(1) of this section meets the following criteria:

(i) All sampling, testing, and analytical data must be approved by the Administrator and must provide data that is accurate and reproducible.

(ii) All estimation and monitoring techniques must be approved by the Administrator.

(iii) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the Administrator.

(d) Each petition must be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator must report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change must be proposed, in writing, and the owner or operator must submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator will determine whether the proposed change invalidates the terms of the petition and will determine the appropriate response. Any change must be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to the Administrator within 10 days of discovering the change. The Administrator will determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator must:

(1) Immediately suspend receipt of prohibited waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator will determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of part 264 or part 265.

(g) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware
§ 268.7 Testing, tracking, and record-keeping requirements for generators, treaters, and disposal facilities.

(a) Requirements for generators: (1) A generator of hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in §268.40, 268.45, or §268.49. This determination can be made concurrently with the hazardous waste determination required in §262.11 of this chapter, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in “Test Methods of Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, (incorporated by reference, see §260.11 of this chapter), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste’s extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of §264.13 of this chapter and paragraph (b) of this section.) In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in §268.40, and are described in detail in §268.42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of §268.9 of this part in addition to any applicable requirements in this section.

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(2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether his waste must be treated, with the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice must include the information in column “268.7(a)(2)” of the Generator Paperwork Requirements Table in paragraph (a)(4) of this section. (Alternatively, if the generator chooses not to make the determination of whether the waste must be treated, the notification must include the EPA Hazardous Waste Numbers and Manifest Number of the first shipment and must state “This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility must make the determination.”) No further notification is necessary until such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator’s file.

(3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice must include the information indicated in column “268.7(a)(3)” of the Generator Paperwork Requirements Table in §268.7(a)(4) and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in column “268.7(a)(3)” of the Generator Paperwork Requirements Table in §268.7(a)(4).

(iii) If the waste changes, the generator must send a new notice and certification to the receiving facility, and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under §261.3(f) of this chapter are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under §268.5, disposal in a no-migration unit under §268.6, or a national capacity variance or case-by-case capacity variance under subpart C of this part. If a generator’s waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column “268.7(a)(4)” of the Generator Paperwork Requirements Table below. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in their files.

<table>
<thead>
<tr>
<th>Required information</th>
<th>§268.7 (a)(2)</th>
<th>§268.7 (a)(3)</th>
<th>§268.7 (a)(4)</th>
<th>§268.7 (a)(9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EPA Hazardous Waste Numbers and Manifest Number of first shipment</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2. Statement: this waste is not prohibited from land disposal</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.

4. The notice must include the applicable wastewater/nonwastewater category (see §§268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide).

5. Waste analysis data (when available)

6. Date the waste is subject to the prohibition

7. For hazardous debris, when treating with the alternative treatment technologies provided by §268.45: the contaminants subject to treatment, as described in §268.45(b); and an indication that these contaminants are being treated to comply with §268.45.

8. For contaminated soil subject to LDRs as provided in §268.49(a), the constituents subject to treatment as described in §268.49(d), and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by §268.49(c) or the universal treatment standards.

9. A certification is needed (see applicable section for exact wording)

(5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under 40 CFR 262.34 to meet applicable LDR treatment standards found at §268.40, the generator must develop and follow a written waste analysis plan which describes the procedures they will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table 1, §268.45, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator's records, and the following requirements must be met:

(i) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this part, including the selected testing frequency.

(ii) Such plan must be kept in the facility's on-site files and made available to inspectors.

(iii) Wastes shipped off-site pursuant to this paragraph must comply with the notification requirements of §268.7(a)(3).

(6) If a generator determines that the waste or contaminated soil is restricted based solely on his knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as referenced in §260.11 of this chapter, and all waste analysis data must be retained on-site in the generator's files.

(7) If a generator determines that he is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is exempted from Subtitle C regulation under 40 CFR 261.2 through 261.6 subsequent to the point of generation (including de-activated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at 40 CFR 261.4(a)(2) or that are CWA-equivalent, or are managed in an underground injection well regulated by the SDWA), he must place a one-time notice describing such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and
the disposition of the waste, in the facility’s on-site files.

(8) Generators must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 40 CFR 261.2 through 261.6, or exempted from Subtitle C regulation, subsequent to the point of generation.

(9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at §268.42(c):

(i) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column “§268.7(a)(9)” in the Generator Paperwork Requirements Table of paragraph (a)(4) of this section, and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator’s files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator’s file.

(iii) If the lab pack contains characteristic hazardous wastes (DO01–DO43), underlying hazardous constituents (as defined in §268.2(i)) need not be determined.

(iv) The generator must also comply with the requirements in paragraphs (a)(6) and (a)(7) of this section.

(10) Small quantity generators with tolling agreements pursuant to 40 CFR 262.20(e) must comply with the applicable notification and certification requirements of paragraph (a) of this section for the initial shipment of the waste subject to the agreement. Such generators must retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(b) Treatment facilities must test their wastes according to the frequency specified in their waste analysis plans or testing requirements in paragraphs (b)(1), (b)(2) and (b)(3) of this section.

(1) For wastes or contaminated soil with treatment standards expressed in the waste extract (TCLP), the owner or operator of the treatment facility must test an extract of the treatment residues, using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846 as incorporated by reference in §260.11 of this chapter) to assure that the treatment residues extract meet the applicable treatment standards.

(2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that they meet the applicable treatment standards.

(3) A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal
facility. A copy of the notice must be placed in the treatment facility’s file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility’s file.

(ii) The one-time notice must include these requirements:

TREATMENT FACILITY PAPERWORK REQUIREMENTS TABLE

<table>
<thead>
<tr>
<th>Required information</th>
<th>§ 268.7(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EPA Hazardous Waste Numbers and Manifest Number of first shipment</td>
<td>✔</td>
</tr>
<tr>
<td>2. The waste is subject to the LDRs. The constituents of concern for F001–F005, and F038, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.</td>
<td>✔</td>
</tr>
<tr>
<td>3. The notice must include the applicable wastewater/ nonwastewater category (see §§268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)</td>
<td>✔</td>
</tr>
<tr>
<td>4. Waste analysis data (when available)</td>
<td>✔</td>
</tr>
<tr>
<td>5. For contaminated soil subject to LDRs as provided in 268.49(a), the constituents subject to treatment as described in 268.49(d) and the following statement, “this contaminated soil [does/does not] exhibit a characteristic of hazardous waste and [is subject to/does not comply with] the soil treatment standards as provided by 268.49(c)”.</td>
<td>✔</td>
</tr>
<tr>
<td>6. A certification is needed (see applicable section for exact wording)</td>
<td>✔</td>
</tr>
</tbody>
</table>

(4) The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there may be significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(i) A copy of the certification must be placed in the treatment facility’s on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.

(ii) Debris excluded from the definition of hazardous waste under §261.3(f) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, §268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather than the certification requirements of this paragraph.

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in §268.40(d), the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42. Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.
(iv) For characteristic wastes that are subject to the treatment standards in §268.40 (other than those expressed as a method of treatment), or §268.49, and that contain underlying hazardous constituents as defined in §268.2(1); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(v) For characteristic wastes that contain underlying hazardous constituents as defined §268.2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in §268.48 Universal Treatment Standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in §268.2(i) have been treated on-site to meet the §268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this section.

(6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of §266.20(b) of this chapter regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) must, for the initial shipment of waste, prepare a one-time certification described in paragraph (b)(4) of this section, and a one-time notice which includes the information in paragraph (b)(3) of this section (except the manifest number). The certification and notification must be placed in the facility’s on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on-site files. In addition, the recycling facility must also keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 40 CFR 266.20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this part must:

(1) Have copies of the notice and certifications specified in paragraph (a) or (b) of this section.

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846 as incorporated by reference in §260.11 of this chapter), to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in subpart D of this part. Such testing must be performed according to the frequency specified in the facility’s waste analysis plan as required by §264.13 or §265.13 of this chapter.

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under §261.3(f) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, §268.45, and debris that the EPA Regional Administrator (or his designated representative) or State authorized to implement part 268 requirements has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

(1) A one-time notification, including the following information, must be
§268.8 [Reserved]

§268.9 Special rules regarding wastes that exhibit a characteristic.

(a) The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subpart D of this part. This determination may be made concurrently with the hazardous waste determination required in §262.11 of this chapter. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (40 CFR part 261, subpart D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (40 CFR part 261, subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section. If the generator determines that their waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of §268.42, Table 1), the generator must determine the underlying hazardous constituents (as defined at §268.2(i)) in the characteristic waste.

(b) Where a prohibited waste is both listed under 40 CFR part 261, subpart D and exhibits a characteristic under 40 CFR part 261, subpart C, the treatment standard for the waste code listed in 40 CFR part 261, subpart D will operate in

§268.8 submitted to the EPA Regional hazardous waste management division director (or his designated representative) or State authorized to implement part 268 requirements:

(i) The name and address of the Subtitle D facility receiving the treated debris;

(ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number(s); and

(iii) For debris excluded under §261.3(f)(1) of this chapter, the technology from Table 1, §268.45, used to treat the debris.

(2) The notification must be updated if the debris is shipped to a different facility, and, for debris excluded under §261.3(f)(1) of this chapter, if a different type of debris is treated or if a different technology is used to treat the debris.

(3) For debris excluded under §261.3(f)(1) of this chapter, the owner or operator of the treatment facility must document and certify compliance with the treatment standards of Table 1, §268.45, as follows:

(i) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

(ii) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

(iii) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility’s files. The certification must state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of 40 CFR 268.45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

(c) Generators and treaters who first receive from EPA or an authorized state a determination that a given contaminated soil subject to LDRs as provided in §268.49(a) no longer exhibits a characteristic of hazardous waste must:

(1) Prepare a one-time only documentation of these determinations including all supporting information; and

(2) Maintain that information in the facility files and other records for a minimum of three years.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987]

EDITORIAL NOTE: For Federal Register citations affecting §268.7, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.
§ 268.14 Surface impoundment exemptions.

(a) This section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(b) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and stored in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing,
may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it must then be in compliance with §268.4.

[57 FR 37271, Aug. 18, 1992, as amended at 71 FR 40278, July 14, 2006]

Subpart C—Prohibitions on Land Disposal

§268.20 Waste specific prohibitions—Dyes and/or pigments production wastes.

(a) Effective August 23, 2005, the waste specified in 40 CFR part 261 as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

1. The wastes meet the applicable treatment standards specified in subpart D of this Part;
2. Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;
3. The wastes meet the applicable treatment standards established pursuant to a petition granted under §268.44; or
4. Hazardous debris has met the treatment standards in §268.40 or the alternative treatment standards in §268.45; or
5. Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable subpart D levels, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

(70 FR 9177, Feb. 24, 2005)

§§268.21–268.29 [Reserved]

§268.30 Waste specific prohibitions—wood preserving wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in 40 CFR part 261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in §268.5(h)(2) of this part.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

1. The wastes meet the applicable treatment standards specified in Subpart D of this part;
2. Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;
3. The wastes meet the applicable alternative treatment standards established pursuant to a petition granted under §268.44; or
4. Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to those wastes covered by the extension.

(e) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards
specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of §268.48 of this part, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

[53 FR 31216, Aug. 17, 1988]

§ 268.31 Waste specific prohibitions—Dioxin-containing wastes.

(a) Effective November 8, 1988, the dioxin-containing wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the following condition applies:


(b) Effective November 8, 1990, the F020–F023 and F026–F028 dioxin-containing wastes listed in paragraph (a)(1) of this section are prohibited from land disposal.

(c) Between November 8, 1988, and November 8, 1990, wastes included in paragraph (a)(1) of this section may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in §268.5(h)(2) and all other applicable requirements of parts 264 and 265 of this chapter.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

(1) The wastes meet the standards of subpart D of this part; or

(2) Persons have been granted an exemption from a prohibition pursuant to §268.6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to those wastes covered by the extension.

[65 FR 81380, Dec. 26, 2000]

§ 268.32 Waste specific prohibitions—Soils exhibiting the toxicity characteristic for metals and containing PCBs.

(a) Effective December 26, 2000, the following wastes are prohibited from land disposal: any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (D004—D011) and containing PCBs.

(b) The requirements of paragraph (a) of this section do not apply if:

(1)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the treatment standards specified in Subpart D of this part for EPA hazardous waste numbers D004—D011, as applicable; or

(2)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the alternative treatment standards specified in §268.49 for contaminated soil; or

(3) Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition; or

(4) The wastes meet applicable alternative treatment standards established pursuant to a petition granted under §268.44.

[65 FR 81380, Dec. 26, 2000]

§ 268.33 Waste specific prohibitions—chlorinated aliphatic wastes.

(a) Effective May 8, 2001, the wastes specified in 40 CFR part 261 as EPA Hazardous Wastes Numbers K174, and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in subpart D of this part;
§ 268.34 Waste specific prohibitions—

(a) Effective August 24, 1998, the following wastes are prohibited from land disposal: the wastes specified in 40 CFR Part 261 as EPA Hazardous Waste numbers D004–D011 that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at 40 CFR Part 261.

(b) Effective November 26, 1998, the following waste is prohibited from land disposal: Slag from secondary lead smelting which exhibits the Toxicity Characteristic due to the presence of one or more metals.

(c) Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with EPA Hazardous wastes D004–D011 that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure); or mixed with newly identified characteristic mineral processing wastes, soil, or debris.

(d) Between May 26, 1998 and May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004–D011 wastes that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in §268.5(h) of this part.

(e) The requirements of paragraphs (a) and (b) of this section do not apply if:

1. The wastes meet the applicable treatment standards specified in subpart D of this part;
2. Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;
3. The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under §268.44; or
4. Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.
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(f) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentration in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents (including underlying hazardous constituents in characteristic wastes) in excess of the applicable Universal Treatment Standard levels of §268.48 of this part, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

§ 268.35 Waste specific prohibitions—petroleum refining wastes.

(a) Effective February 8, 1999, the wastes specified in 40 CFR part 261 as EPA Hazardous Wastes Numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soil and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under §268.44;

(4) Hazardous debris that have met treatment standards in §268.40 or the alternative treatment standards in §268.45;

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste.

[63 FR 42186, Aug. 6, 1998]

§ 268.36 Waste specific prohibitions—inorganic chemical wastes

(a) Effective May 20, 2002, the wastes specified in 40 CFR part 261 as EPA Hazardous Wastes Numbers K176, K177, and K178, and soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in subpart D of this part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under §268.44;

(4) Hazardous debris has met the treatment standards in §268.40 or the alternative treatment standards in §268.45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the
§ 268.37 Waste specific prohibitions—ignitable and corrosive characteristic wastes whose treatment standards were vacated.

(a) Effective August 9, 1993, the wastes specified in 40 CFR 261.21 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in §261.22 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(b) Effective February 10, 1994, the wastes specified in 40 CFR 261.21 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in §261.22 as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

[58 FR 29885, May 24, 1993]

§ 268.38 Waste specific prohibitions—newly identified organic toxicity characteristic wastes and newly listed coke by-product and chlorotoluene production wastes.

(a) Effective December 19, 1994, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste numbers F037, F038, K107–K112, K117, K118, K123–K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012–D043, K141–K145, and K147–K151 are prohibited from land disposal. The following wastes that are specified in 40 CFR 261.24, Table 1 as EPA Hazardous Waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal, or that are injected in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(b) On September 19, 1996, radioactive wastes that are mixed with D018–D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies. Radioactive wastes mixed with K141–K145, and K147–K151 are also prohibited from land disposal. In addition, soil
and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(c) Between December 19, 1994 and September 19, 1996, the wastes included in paragraphs (b) of this section may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in §268.5(h)(2) of this Part.

(d) The requirements of paragraphs (a), (b), and (c) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this Part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under §268.44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(e) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

[59 FR 48045, Sept. 19, 1995]

§ 268.39 Waste specific prohibitions—spent aluminum potliners; reactive; and carbamate wastes.

(a) On July 8, 1996, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K156–K159, and K161; and in 40 CFR 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188–P192, P194, P196–P198, P201–P205, U271, U278–U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409–U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(b) On July 8, 1996, the wastes identified in 40 CFR 261.23 as D003 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. (Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see §268.40)).

(c) On September 21, 1998, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(d) On April 8, 1998, radioactive wastes mixed with K088, K156–K159, K161, P127, P128, P185, P188–P192, P194, P196–P198, P201–P205, U271, U278–U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409–U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(e) Between July 8, 1996, and April 8, 1998, the wastes included in paragraphs (a), (c), and (d) of this section may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in §268.5(h)(2).

(f) The requirements of paragraphs (a), (b), (c), and (d) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this Part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under §268.6, with respect to those wastes and units covered by the petition;
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(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under §268.44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(g) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal, and all requirements of this part 268 are applicable, except as otherwise specified.


Subpart D—Treatment Standards

§ 268.40 Applicability of treatment standards.

(a) A prohibited waste identified in the table “Treatment Standards for Hazardous Wastes” may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

1. All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste (“total waste standards”); or

2. The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table (“waste extract standards”); or

3. The waste must be treated using the technology specified in the table (“technology standard”), which are described in detail in §268.42, Table 1—Technology Codes and Description of Technology-Based Standards.

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in §260.11, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in §268.42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in paragraph (a) of this section, treatment and disposal facilities may demonstrate (and certify pursuant to 40 CFR 268.7(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in the table “Treatment Standards for Hazardous Wastes” in this section, provided the following conditions are satisfied:

1. The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

2. The treatment or disposal facility has used the methods referenced in paragraph (d)(1) of this section to treat the organic constituents; and
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(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.

(e) For characteristic wastes (D001–D043) that are subject to treatment standards in the following table “Treatment Standards for Hazardous Wastes,” and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents (as defined in §268.2(i)) must meet Universal Treatment Standards, found in §268.48, Table Universal Treatment Standards, prior to land disposal as defined in §268.2(c) of this part.

(f) The treatment standards for F001–F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in §260.11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001–F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K156–K161; and in 40 CFR 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188–P192, P194, P196–P199, P201–P205, U271, U277–U280, U364–U367, U372, U373, U375–U379, U381–U387, U389–U396, U400–U404, U407, and U409–U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at §268.42 Table 1, for wastewaters.

(h) Prohibited D004–D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in this section prior to land disposal.

(i) [Reserved]

(j) Effective September 4, 1998, the treatment standards for the wastes specified in 40 CFR 261.33 as EPA Hazardous Waste numbers P185, P191, P192, P197, U364, U394, and U385 may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1 of this Part, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at §268.42 Table 1 of this Part, for wastewaters.
TREATMENT STANDARDS FOR HAZARDOUS WASTES

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>D001&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Ignitable Characteristic Wastes, except for the §261.21(a)(1) High TOC Subcategory.</td>
<td>NA</td>
<td>NA</td>
<td>DEACT and meet §268.48 standards&lt;sup&gt;6&lt;/sup&gt;, or RORGS; or CMBST or POLYM</td>
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<tr>
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<tr>
<td>D002&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Corrosive Characteristic Wastes.</td>
<td>NA</td>
<td>NA</td>
<td>DEACT and meet §268.48 standards&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>D003&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Reactive Sulfides Subcategory based on 261.23(a)(5).</td>
<td>NA</td>
<td>NA</td>
<td>DEACT</td>
</tr>
<tr>
<td></td>
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<tr>
<td>D005, D006, D007, D008, D009, D010, D011</td>
<td>Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)</td>
<td>Controversial (pH)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium</td>
<td>7440–39–3</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>NA</td>
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<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
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<tr>
<td></td>
<td></td>
<td>Silver</td>
<td>7782–49–2</td>
<td>NA</td>
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<td></td>
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<td></td>
<td>7440–22–4</td>
<td>NA</td>
</tr>
<tr>
<td>D009&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Explosives Subcategory based on 261.23(a)(6),(7), and (8).</td>
<td>NA</td>
<td>NA</td>
<td>DEACT and meet §268.48 standards&lt;sup&gt;6&lt;/sup&gt;</td>
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<td></td>
<td>Unexploded ordnance and other explosive devices which have been the subject of an emergency response.</td>
<td>NA</td>
<td>NA</td>
<td>DEACT</td>
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<tr>
<td></td>
<td>Other Reactives Subcategory based on 261.23(a)(1).</td>
<td>NA</td>
<td>NA</td>
<td>DEACT and meet §268.48 standards&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup> Waste code includes waste description and treatment/Regulatory subcategory.

<sup>2</sup> CAS number.

<sup>3</sup> Concentration in mg/L; or Technology Code.

<sup>4</sup> Concentration in mg/kg unless noted as "mg/L TCLP"; or Technology Code.

<sup>5</sup> DEACT and meet §268.48 standards.

<sup>6</sup> RORGS; CMBST; or POLYM
<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Waste Characteristic</th>
<th>Substance</th>
<th>CAS Number</th>
<th>Toxicity Certification</th>
<th>TCLP Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Reactive Subcategory based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of nonwastewaters only).</td>
<td></td>
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<tr>
<td>Reactive Cyanides Subcategory based on 261.23(a)(5).</td>
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<tr>
<td>Cyanides (Total)</td>
<td></td>
<td>57-12-5</td>
<td>Reserved</td>
<td>590</td>
<td>DEACT and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Cyanides (Amenable)</td>
<td></td>
<td>57-12-5</td>
<td>0.86</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>D04&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4 and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.0 mg/L TCLP and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>D05&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Barium</td>
<td>7440–39–3</td>
<td>1.2 and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
<td>21 mg/L TCLP and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>D06&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>0.69 and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.11 mg/L TCLP and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Cadmium Containing Batteries Subcategory. (Note: This subcategory consists of nonwastewaters only).</td>
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<tr>
<td></td>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>NA</td>
<td>RTHRM</td>
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<tr>
<td>Radioactively contaminated cadmium containing batteries. (Note: This subcategory consists of nonwastewaters only)</td>
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<tr>
<td></td>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>NA</td>
<td>Macroencapsulation in accordance with 40 CFR 268.45.</td>
<td></td>
</tr>
<tr>
<td>D07&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77 and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.60 mg/L TCLP and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>D08&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69 and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.75 mg/L TCLP and meet §268.48 standards&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lead Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80). This subcategory consists of nonwastewaters only.)</td>
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</tr>
<tr>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>NA</td>
<td>RLEAD</td>
<td></td>
</tr>
<tr>
<td>Radioactive Lead Solids Subcategory (Note: These lead solids include, but are not limited to, all forms of lead shavings and other elemental forms of lead. These lead solids do not include treatment residuals such as hydrous oxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)</td>
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</tr>
<tr>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>NA</td>
<td>MACRO</td>
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<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory</td>
<td>Regulated hazardous constituent</td>
<td>CAS number</td>
<td>Concentration in mg/L or Technology Code</td>
<td>Concentration in mg/kg unless noted as &quot;mg/L TCLP&quot; or Technology Code</td>
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<tr>
<td>D009⁹</td>
<td>Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846, and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>IMERC; OR RMERC</td>
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<tr>
<td></td>
<td>Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846, and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>RMERC</td>
</tr>
<tr>
<td></td>
<td>Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846, and contain less than 260 mg/kg total mercury and that are residues from RMERC only. (Low Mercury Subcategory)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>0.20 mg/L TCLP and meet § 268.48 standards⁹</td>
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<td>All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846, and contain less than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>0.025 mg/L TCLP and meet § 268.48 standards⁹</td>
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<td>All D009 wastewaters.</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>0.15 mg/L TCLP and meet § 268.48 standards⁹</td>
<td>NA</td>
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<td>Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>AMLGM</td>
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<td>Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>IMERC</td>
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<td>Radioactively contaminated mercury containing batteries. (Note: This subcategory consists of nonwastewaters only)</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
<td>Macroencapsulation in accordance with 40 CFR 268.45.</td>
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<td>D010</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Selenium 7782–49–2</td>
<td>0.82 and meet §268.48 standards 4</td>
<td>5.7 mg/L TCLP and meet §268.48 standards 4</td>
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<td>D011</td>
<td>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.</td>
<td>Silver 7440–22–4</td>
<td>0.43 and meet §268.48 standards 4</td>
<td>0.14 mg/L TCLP and meet §268.48 standards 4</td>
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<td>Radioactively contaminated silver containing batteries. Note: This subcategory consists of nonwastewaters only)</td>
<td>Silver 7440–22–4</td>
<td>NA</td>
<td>Macrocapsulation in accordance with 40 CFR 268.45</td>
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<tr>
<td>D012</td>
<td>Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.</td>
<td>Endrin 72–20–8</td>
<td>BIODG; or CMBST</td>
<td>0.13 and meet §268.48 standards 4</td>
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<tr>
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<td>Endrin aldehyde 7421–93–4</td>
<td>BIODG; or CMBST</td>
<td>0.13 and meet §268.48 standards 4</td>
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<td>D013</td>
<td>Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.</td>
<td>alpha-BHC 319–84–6</td>
<td>CARBN; or CMBST</td>
<td>0.066 and meet §268.48 standards 4</td>
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<td>beta-BHC 319–85–7</td>
<td>CARBN; or CMBST</td>
<td>0.066 and meet §268.48 standards 4</td>
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<td>delta-BHC 319–86–8</td>
<td>CARBN; or CMBST</td>
<td>0.066 and meet §268.48 standards 4</td>
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<td></td>
<td>gamma-BHC (Lindane) 56–89–9</td>
<td>CARBN; or CMBST</td>
<td>0.066 and meet §268.48 standards 4</td>
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<td>D014</td>
<td>Wastes that are TC for Methoxychlor based on the TCLP in SW846 Method 1311.</td>
<td>Methoxychlor 72–43–5</td>
<td>WETOX or CMBST</td>
<td>0.18 and meet §268.48 standards 4</td>
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<td>D015</td>
<td>Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.</td>
<td>Toxaphene 8001–35–2</td>
<td>BIODG or CMBST</td>
<td>2.6 and meet §268.48 standards 4</td>
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<td>D016</td>
<td>Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW846 Method 1311.</td>
<td>2,4-D (2,4-Dichlorophenoxyacetic acid) 94–75–7</td>
<td>CHOXD, BIODG, or CMBST</td>
<td>10 and meet §268.48 standards 4</td>
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<tr>
<td>D017</td>
<td>Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.</td>
<td>2,4,5-TP (Silvex) 93–72–1</td>
<td>CHOXD or CMBST</td>
<td>7.9 and meet §268.48 standards 4</td>
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<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
<td>Nonwastewaters</td>
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<tr>
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<td>Common name</td>
<td>CAS number</td>
<td>Concentration&lt;sup&gt;1&lt;/sup&gt; in mg/L; or Technology Code&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Concentration&lt;sup&gt;1&lt;/sup&gt; in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td>D018&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311.</td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>10 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D019&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311.</td>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.057 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>6.0 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D020&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311.</td>
<td>Chlordane (alpha and gamma isomers)</td>
<td>57–74–9</td>
<td>0.0033 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>0.26 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D021&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Chlorobenzene based on the TCLP in SW846 Method 1311.</td>
<td>Chlorobenzene</td>
<td>108–90–7</td>
<td>0.057 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>6.0 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D022&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311.</td>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>6.0 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D023&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311.</td>
<td>o-Cresol</td>
<td>95–48–7</td>
<td>0.11 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>5.6 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D024&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311.</td>
<td>m-Cresol (difficult to distinguish from p-cresol)</td>
<td>108–39–4</td>
<td>0.77 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>5.6 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
</tr>
<tr>
<td>D025&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311.</td>
<td>p-Cresol (difficult to distinguish from m-cresol)</td>
<td>106–44–5</td>
<td>0.77 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>5.6 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
</tr>
<tr>
<td>D026&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311.</td>
<td>Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)</td>
<td>1319–77–3</td>
<td>0.88 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>11.2 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>D027&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW846 Method 1311.</td>
<td>p-Dichlorobenzene (1,4-Dichlorobenzene)</td>
<td>106–46–7</td>
<td>0.090 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
<td>6.0 and meet §268.48 standards&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>Table Row</td>
<td>Description</td>
<td>Chemical</td>
<td>CAS Number</td>
<td>TCLP Concentration</td>
<td>SW846 Method</td>
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<tr>
<td>D028</td>
<td>Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311.</td>
<td>1,2-Dichloroethane</td>
<td>107–06–2</td>
<td>0.21 and meet §268.48 standards</td>
<td>6.0 and meet §268.48 standards</td>
</tr>
<tr>
<td>D029</td>
<td>Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311.</td>
<td>1,1-Dichloroethylene</td>
<td>75–35–4</td>
<td>0.025 and meet §268.48 standards</td>
<td>6.0 and meet §268.48 standards</td>
</tr>
<tr>
<td>D030</td>
<td>Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311.</td>
<td>2,4-Dinitrotoluene</td>
<td>121–14–2</td>
<td>0.32 and meet §268.48 standards</td>
<td>14.0 and meet §268.48 standards</td>
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<tr>
<td>D031</td>
<td>Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311.</td>
<td>Hexachlorobenzene</td>
<td>118–74–1</td>
<td>0.055 and meet §268.48 standards</td>
<td>10.0 and meet §268.48 standards</td>
</tr>
<tr>
<td>D032</td>
<td>Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311.</td>
<td>Hexachlorobutadiene</td>
<td>87–68–3</td>
<td>0.055 and meet §268.48 standards</td>
<td>5.6 and meet §268.48 standards</td>
</tr>
<tr>
<td>D033</td>
<td>Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.</td>
<td>Methyl ethyl ketone</td>
<td>78–03–3</td>
<td>0.28 and meet §268.48 standards</td>
<td>36.0 and meet §268.48 standards</td>
</tr>
<tr>
<td>D034</td>
<td>Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311.</td>
<td>Nitrobenzene</td>
<td>98–95–3</td>
<td>0.068 and meet §268.48 standards</td>
<td>14.0 and meet §268.48 standards</td>
</tr>
<tr>
<td>D035</td>
<td>Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311.</td>
<td>Pentachlorophenol</td>
<td>87–66–5</td>
<td>0.089 and meet §268.48 standards</td>
<td>7.4 and meet §268.48 standards</td>
</tr>
<tr>
<td>D036</td>
<td>Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.</td>
<td>Pyridine</td>
<td>110–86–1</td>
<td>0.014 and meet §268.48 standards</td>
<td>16.0 and meet §268.48 standards</td>
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<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory</td>
<td>Regulated hazardous constituent</td>
<td>CAS number</td>
<td>Concentration (^1) in mg/L or Technology Code (^2)</td>
<td>Concentration (^3) in mg/kg unless noted as &quot;mg/L TCLP&quot; or Technology Code (^4)</td>
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<tr>
<td>D039 (^9)</td>
<td>Wastes that are TC for Tetrachloroethylene based on the TCLP in SW846 Method 1311.</td>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056 and meet §268.48 standards (^8)</td>
<td>6.0 and meet §268.48 standards (^8)</td>
</tr>
<tr>
<td>D040 (^9)</td>
<td>Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311.</td>
<td>Trichloroethylene</td>
<td>79–01–6</td>
<td>0.054 and meet §268.48 standards (^8)</td>
<td>6.0 and meet §268.48 standards (^8)</td>
</tr>
<tr>
<td>D041 (^9)</td>
<td>Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311.</td>
<td>2,4,5-Trichlorophenol</td>
<td>95–95–4</td>
<td>0.18 and meet §268.48 standards (^8)</td>
<td>7.4 and meet §268.48 standards (^8)</td>
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<tr>
<td>D042 (^9)</td>
<td>Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311.</td>
<td>2,4,6-Trichlorophenol</td>
<td>88–06–2</td>
<td>0.035 and meet §268.48 standards (^8)</td>
<td>7.4 and meet §268.48 standards (^8)</td>
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<tr>
<td>D043 (^9)</td>
<td>Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311.</td>
<td>Vinyl chloride</td>
<td>75–01–4</td>
<td>0.27 and meet §268.48 standards (^8)</td>
<td>6.0 and meet §268.48 standards (^8)</td>
</tr>
</tbody>
</table>

F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methyl, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, styrene, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichlorofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.
### Environmental Protection Agency § 268.40

<table>
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<tr>
<th>Substance</th>
<th>F003/403/505</th>
<th>F005/405/505</th>
<th>F006/406/506</th>
<th>F007/407/507</th>
<th>F008/408/508</th>
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<tr>
<td>Isobutyl alcohol</td>
<td>78-83-1</td>
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<td>Methanol</td>
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<td>Methylethyl chloride</td>
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<td>Methyl ethyl ketone</td>
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<td>Methyl isobutyl ketone</td>
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<td>Nitrobenzene</td>
<td>98-95-3</td>
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<tr>
<td>Pyridine</td>
<td>110-86-1</td>
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<tr>
<td>Tetrachloroethylene</td>
<td>127-18-4</td>
<td>0.096</td>
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<td>Toluene</td>
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<td>1,1,1-Trichloroethane</td>
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<td>1,1,2-Trichloroethane</td>
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<td>1,1,2-Trichloro-1,2,2-trifluoroethane</td>
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<td>Trichloroethylene</td>
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<tr>
<td>Trichlorofluoromethane</td>
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<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
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</tr>
</tbody>
</table>

**F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001–5 solvents: carbon disulfide, cyclohexanone, and/or methanol. (formerly 268.41(c))**

- Carbon disulfide
- Cyclohexanone
- Methanol

**F005 solvent waste containing 2-Nitropropane as the only listed F001–5 solvent.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>F005/405/505</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Nitropropane</td>
<td>79–46–9</td>
</tr>
</tbody>
</table>

**F005 solvent waste containing 2-Ethoxyethanol as the only listed F001–5 solvent.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>F005/405/505</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethoxyethanol</td>
<td>110–80–5</td>
</tr>
</tbody>
</table>

**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/striping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>F006/406/506</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>7440–43–9</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Cyanides (Amenable)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Lead</td>
<td>7439–92–1</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
</tr>
<tr>
<td>Silver</td>
<td>7440–22–4</td>
</tr>
</tbody>
</table>

**F007 Spent cyanide plating bath solutions from electroplating operations.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>F007/407/507</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>7440–43–9</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Cyanides (Amenable)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Lead</td>
<td>7439–92–1</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
</tr>
<tr>
<td>Silver</td>
<td>7440–22–4</td>
</tr>
</tbody>
</table>

**F008 Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>F008/408/508</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>7440–43–9</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Cyanides (Amenable)</td>
<td>57–12–5</td>
</tr>
<tr>
<td>Lead</td>
<td>7439–92–1</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
</tr>
<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory ¹</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Common name</td>
</tr>
<tr>
<td></td>
<td>Silver</td>
</tr>
<tr>
<td>F009</td>
<td>Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>F010</td>
<td>Quenching bath residues from oil baths from metal heat treating operations.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>F011</td>
<td>Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>F012</td>
<td>Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>F019</td>
<td>Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Regulatory subcategories are identified in the Code of Federal Regulations (CFR) for waste treatment and disposal. ² Common name for the chemical. ³ Concentration in mg/L unless noted otherwise. ⁴ Technology Code refers to specific treatment technology. ⁵ Total and Amenable concentrations for cyanides are provided.
### F020, F021, F022, F023, F026

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: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5,6-tetrachlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tri-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022); and 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: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5,6-tetrachlorophenol (F023); (2) tri-, penta-, or hexachlorobenzene under alkaline conditions (i.e., F026).

<table>
<thead>
<tr>
<th>Substance</th>
<th>CPC</th>
<th>CMBST 11</th>
<th>CMBST 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>HexaChlorodibenzo-p-dioxins (HxCDDs)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>HexaChlorodibenzofurans (HexCDFs)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>Pentachlorodibenzo-p-dioxins (PeCDDs)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>Pentachlorodibenzofurans (PeCDFs)</td>
<td>NA</td>
<td>0.000035</td>
<td>0.001</td>
</tr>
<tr>
<td>Tetrachlorodibenzo-p-dioxins (TCDDs)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>Tetrachlorodibenzofurans (TCDFs)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
</tbody>
</table>

### F024

Proces wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32).

<table>
<thead>
<tr>
<th>Substance</th>
<th>CPC</th>
<th>CMBST 11</th>
<th>CMBST 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>All F024 wastes</td>
<td>NA</td>
<td>0.057</td>
<td>0.046</td>
</tr>
<tr>
<td>2-Chloro-1,3-butadiene</td>
<td>126–99–8</td>
<td>0.030</td>
<td>0.028</td>
</tr>
<tr>
<td>3-Chloropropylene</td>
<td>107–05–1</td>
<td>0.026</td>
<td>0.020</td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td>75–34–3</td>
<td>0.059</td>
<td>0.059</td>
</tr>
<tr>
<td>1,2-Dichloroethylene</td>
<td>107–06–2</td>
<td>0.21</td>
<td>0.21</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>78–87–5</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>cis-1,3-Dichloropropylene</td>
<td>10081–01–5</td>
<td>0.036</td>
<td>0.036</td>
</tr>
<tr>
<td>trans-1,3-Dichloropropylene</td>
<td>10081–02–6</td>
<td>0.036</td>
<td>0.036</td>
</tr>
<tr>
<td>bis(2-Ethylhexyl)phthalate</td>
<td>117–81–7</td>
<td>0.28</td>
<td>0.28</td>
</tr>
<tr>
<td>Hexachloroethane</td>
<td>67–72–1</td>
<td>0.055</td>
<td>0.055</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
<td>2.77</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>3.98</td>
<td>3.98</td>
</tr>
</tbody>
</table>

### F025

Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Light Ends Subcategory.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CPC</th>
<th>CMBST 11</th>
<th>CMBST 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.057</td>
<td>0.057</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046</td>
<td>0.046</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>107–06–2</td>
<td>0.21</td>
<td>0.21</td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td>75–35–4</td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>75–9–2</td>
<td>0.089</td>
<td>0.089</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>79–01–6</td>
<td>0.054</td>
<td>0.054</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>75–01–4</td>
<td>0.27</td>
<td>0.27</td>
</tr>
</tbody>
</table>

### F026

Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F026—Spent Filters/Aids and Desiccants Subcategory.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CPC</th>
<th>CMBST 11</th>
<th>CMBST 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.057</td>
<td>0.057</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046</td>
<td>0.046</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>118–76–1</td>
<td>0.055</td>
<td>0.055</td>
</tr>
<tr>
<td>Hexachlorobutadiene</td>
<td>87–68–3</td>
<td>0.055</td>
<td>0.055</td>
</tr>
<tr>
<td>Hexachloroethene</td>
<td>67–72–1</td>
<td>0.055</td>
<td>0.055</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>75–9–2</td>
<td>0.089</td>
<td>0.089</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>79–00–5</td>
<td>0.054</td>
<td>0.054</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>75–01–4</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory 1</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------</td>
<td>--------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Common name</td>
<td>CAS number</td>
</tr>
<tr>
<td>F027</td>
<td>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.)</td>
<td>HxCDDs (All Hexachlorodibenzo-p-dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HxCDFs (All Hexachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PeCDDs (All Pentachlorodibenzo-p-dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PeCDFs (All Pentachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pentachlorophenol 87–86–5</td>
<td>87–86–5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCDDs (All Tetrachlorodibenzo-p-dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCDFs (All Tetrachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-Trichlorophenol</td>
<td>95–95–4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,6-Trichlorophenol</td>
<td>88–06–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,3,4,6-Tetrachlorophenol</td>
<td>58–90–2</td>
</tr>
<tr>
<td>F028</td>
<td>Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.</td>
<td>HxCDDs (All Hexachlorodibenzo-p-dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HxCDFs (All Hexachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PeCDDs (All Pentachlorodibenzo-p-dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PeCDFs (All Pentachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pentachlorophenol 87–86–5</td>
<td>87–86–5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCDDs (All Tetrachlorodibenzo-p- dioxins)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCDFs (All Tetrachlorodibenzofuran)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-Trichlorophenol</td>
<td>95–95–4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,6-Trichlorophenol</td>
<td>88–06–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,3,4,6-Tetrachlorophenol</td>
<td>58–90–2</td>
</tr>
</tbody>
</table>
### F032 Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.33 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Non-Hazardous Limit</th>
<th>Hazardous Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benz(a)anthracene</td>
<td>56-55-3</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benzo(a)fluoranthene</td>
<td>205-99-2</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(a)fluoranthene)</td>
<td>207-08-9</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Chrysene</td>
<td>50-32-8</td>
<td>0.061</td>
<td>3.4</td>
</tr>
<tr>
<td>2,4-Dimethyl phenol</td>
<td>218-01-9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Fluorene</td>
<td>53-70-3</td>
<td>0.055</td>
<td>8.2</td>
</tr>
<tr>
<td>Hexachlorodibenz-p-dioxins</td>
<td>105-67-9</td>
<td>0.036</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>86-73-7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Hexachlorodibenzofurans</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Indeno (12,3-c,d) pyrene</td>
<td>193-39-5</td>
<td>0.0055</td>
<td>3.4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Pentachlorodibenz-p-dioxins</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Pentachlorodibenzofurans</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>87-86-5</td>
<td>0.099</td>
<td>7.4</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-05-2</td>
<td>0.029</td>
<td>6.2</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>0.067</td>
<td>8.2</td>
</tr>
<tr>
<td>Tetrachlorodibenz-p-dioxins</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Tetrachlorodibenzofurans</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>2,3,4,6-Tetrachlorophenol</td>
<td>58-90-2</td>
<td>0.030</td>
<td>7.4</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>88-06-2</td>
<td>0.035</td>
<td>7.4</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
<td>1.4</td>
<td>50 mg/L TCLP</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440-47-3</td>
<td>2.77</td>
<td>0.00 mg/L TCLP</td>
</tr>
</tbody>
</table>

### F034 Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Non-Hazardous Limit</th>
<th>Hazardous Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benz(a)anthracene</td>
<td>56-55-3</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benzo(a)fluoranthene</td>
<td>205-99-2</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(a)fluoranthene)</td>
<td>207-08-9</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Chrysene</td>
<td>50-32-8</td>
<td>0.061</td>
<td>3.4</td>
</tr>
<tr>
<td>2,4-Dimethyl phenol</td>
<td>218-01-9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Fluorene</td>
<td>53-70-3</td>
<td>0.055</td>
<td>8.2</td>
</tr>
<tr>
<td>Hexachlorodibenz-p-dioxins</td>
<td>105-67-9</td>
<td>0.036</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>86-73-7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Hexachlorodibenzofurans</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Indeno (12,3-c,d) pyrene</td>
<td>193-39-5</td>
<td>0.0055</td>
<td>3.4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Pentachlorodibenz-p-dioxins</td>
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<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Pentachlorodibenzofurans</td>
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<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>87-86-5</td>
<td>0.099</td>
<td>7.4</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-05-2</td>
<td>0.029</td>
<td>6.2</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>0.067</td>
<td>8.2</td>
</tr>
<tr>
<td>Tetrachlorodibenz-p-dioxins</td>
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<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>Tetrachlorodibenzofurans</td>
<td>NA</td>
<td>0.0000063, or CMBST</td>
<td>0.001, or CMBST</td>
</tr>
<tr>
<td>2,3,4,6-Tetrachlorophenol</td>
<td>58-90-2</td>
<td>0.030</td>
<td>7.4</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>88-06-2</td>
<td>0.035</td>
<td>7.4</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
<td>1.4</td>
<td>50 mg/L TCLP</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440-47-3</td>
<td>2.77</td>
<td>0.00 mg/L TCLP</td>
</tr>
</tbody>
</table>

### §268.40

Environmental Protection Agency
### Treatment Standards for Hazardous Wastes—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Common name</th>
<th>CAS number</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regulated hazardous constituent</td>
<td></td>
<td></td>
<td>Concentration in mg/L; or Technology Code</td>
<td>Concentration in mg/kg unless noted as ''mg/L TCLP''; or Technology Code</td>
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<tr>
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<td></td>
<td>Code 4</td>
<td>Code 4</td>
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<tr>
<td></td>
<td></td>
<td>Indeno(1,2,3-c,d)pyrene</td>
<td>193–39–5</td>
<td>0.0055</td>
<td>3.4</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenanthrene</td>
<td>85–01–8</td>
<td>0.059</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
<td>5.0 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
<td>0.60 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td>F035</td>
<td>Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative dripage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.</td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
<td>5.0 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
<td>0.60 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td>F037</td>
<td>Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K001 wastes are not included in this listing.</td>
<td>Aconophthene</td>
<td>83–32–9</td>
<td>0.059</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anthracene</td>
<td>120–12–7</td>
<td>0.059</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benz(a)anthracene</td>
<td>56–05–3</td>
<td>0.059</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
<td>0.061</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>bis(2-Ethylhexyl) phthalate</td>
<td>117–81–7</td>
<td>0.28</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrylone</td>
<td>218–01–9</td>
<td>0.059</td>
<td>3.4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Di-n-butyl phthalate</td>
<td>84–74–2</td>
<td>0.057</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethylbenzene</td>
<td>100–41–4</td>
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<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluorene</td>
<td>86–73–7</td>
<td>0.059</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenanthrene</td>
<td>85–01–8</td>
<td>0.059</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenol</td>
<td>108–95–2</td>
<td>0.039</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xylenes-mixed isomers (sum of α, m-, and p-xylene concentrations)</td>
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<td>0.32</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
<td>0.60 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
<td>1.2</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td>7440–02–0</td>
<td>NA</td>
<td>11 mg/L TCLP</td>
<td></td>
</tr>
</tbody>
</table>
VerDate Mar<15>2010

Petroleum refinery secondary (emulsified) oil/water/solids separation sludge
and/or float generated from the physical and/or chemical separation of oil/
water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges
and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in
stormwater units that do not receive dry weather flow, sludges generated
from non-contact once-through cooling waters segregated for treatment
from other process or oily cooling waters, sludges and floats generated in
aggressive biological treatment units as defined in § 261.31(b)(2) (including
sludges and floats generated in one or more additional units after
wastewaters have been treated in aggressive biological units) and F037,
K048, and K051 are not included in this listing.

Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as
hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other
Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020,
F021, F022, F026, F027, and/or F028.)

F038

F039

pmangrum on DSK3VPTVN1PROD with CFR

11:36 Sep 04, 2012

Jkt 226173

PO 00000
Acenaphthylene
Acenaphthene
Acetone
Acetonitrile
Acetophenone
2-Acetylaminofluorene
Acrolein
Acrylonitrile
Aldrin
4-Aminobiphenyl
Aniline
o-Anisidine (2-methoxyaniline)
Anthracene
Aramite
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC
Benzene
Benz(a)anthracene
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)
Benzo(g,h,i)perylene
Benzo(a)pyrene
Bromodichloromethane
Methyl bromide (Bromomethane)
4-Bromophenyl phenyl ether
n-Butyl alcohol
Butyl benzyl phthalate

Benzene
Benzo(a)pyrene
bis(2-Ethylhexyl) phthalate
Chrysene
Di-n-butyl phthalate
Ethylbenzene
Fluorene
Naphthalene
Phenanthrene
Phenol
Pyrene
Toluene
Xylenes-mixed isomers (sum of o, m-,
and p-xylene concentrations)
Chromium (Total)
Cyanides (Total) 7
Lead
Nickel
0.059
0.059
0.28
5.6
0.010
0.059
0.29
0.24
0.021
0.13
0.81
0.010
0.059
0.36
0.00014
0.00014
0.023
0.0017
0.14
0.059
0.11
0.11
0.0055
0.061
0.35
0.11
0.055
5.6
0.017

207–08–9
191–24–2
50–32–8
75–27–4
74–83–9
101–55–3
71–36–3
85–68–7

2.77
1.2
0.69
NA

7440–47–3
57–12–5
7439–92–1
7440–02–0
208–96–8
83–32–9
67–64–1
75–05–8
96–86–2
53–96–3
107–02–8
107–13–1
309–00–2
92–67–1
62–53–3
90-04-0
120–12–7
140–57–8
319–84–6
319–85–7
319–86–8
58–89–9
71–43–2
56–55–3
205–99–2

0.14
0.061
0.28
0.059
0.057
0.057
0.059
0.059
0.059
0.039
0.067
0.080
0.32

71–43–2
50–32–8
117–81–7
218–01–9
84–74–2
100–41–4
86–73–7
91–20–3
85–01–8
108–95–2
129–00–0
108–88–3
1330–20–7

Frm 00203

Fmt 8010

Sfmt 8010

Y:\SGML\226173.XXX

1.8
3.4
15
15
15
2.6
28

6.8

3,4
3.4
160
NA
9.7
140
NA
84
0.066
NA
14
0.66
3.4
NA
0.066
0.066
0.066
0.066
10
3.4
6.8

0.60 mg/L TCLP
590
NA
11 mg/L TCLP

10
3.4
28
3.4
28
10
NA
5.6
5.6
6.2
8.2
10
30

Environmental Protection Agency
§ 268.40

193

226173


<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration(^1) in mg/L or Technology Code(^4)</td>
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<td></td>
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<td></td>
<td>mg/L; or Technology Code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Code 4</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>&quot;mg/L TCLP&quot;; or</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Technology Code 4</td>
</tr>
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<td>2-sec-Butyl-4,6-dinitrophenol</td>
<td>(Dinoseb)</td>
<td>2-sec-Butyl-4,6-dinitrophenol</td>
<td>88-85-7</td>
<td>0.066</td>
</tr>
<tr>
<td>Carbon disulfide</td>
<td>75-15-0</td>
<td>Carbon disulfide</td>
<td>0.38</td>
<td>NA</td>
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<tr>
<td>Carbon tetraiodide</td>
<td>56-23-5</td>
<td>Carbon tetraiodide</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chloridane (alpha and gamma isomers)</td>
<td>57-74-9</td>
<td>Chloridane (alpha and gamma isomers)</td>
<td>0.0033</td>
<td>0.26</td>
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<td>p-Chloroaniline</td>
<td>106-47-8</td>
<td>p-Chloroaniline</td>
<td>0.46</td>
<td>16</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>108-90-7</td>
<td>Chlorobenzene</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chlorobenzilate</td>
<td>510-15-6</td>
<td>Chlorobenzilate</td>
<td>0.10</td>
<td>NA</td>
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<td>2-Chloro-1,3-butadiene</td>
<td>0.057</td>
<td>NA</td>
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<tr>
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<td>Chlorodibromomethane</td>
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</tr>
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<td>Chloroethane</td>
<td>75-00-3</td>
<td>Chloroethane</td>
<td>0.27</td>
<td>6.0</td>
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<td>bis(2-Chloroethoxy)methane</td>
<td>111-91-1</td>
<td>bis(2-Chloroethoxy)methane</td>
<td>0.036</td>
<td>7.2</td>
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<td>bis(2-Chloroethyl)ether</td>
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<td>6.0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67-66-3</td>
<td>Chloroform</td>
<td>0.046</td>
<td>6.0</td>
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<td>bis(2-Chloroisopropyl)ether</td>
<td>39638-32-9</td>
<td>bis(2-Chloroisopropyl)ether</td>
<td>0.055</td>
<td>7.2</td>
</tr>
<tr>
<td>p-Chloro-m-cresol</td>
<td>59-50-7</td>
<td>p-Chloro-m-cresol</td>
<td>0.018</td>
<td>14</td>
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<tr>
<td>Chloromethane (Methyl chloride)</td>
<td>74-87-3</td>
<td>Chloromethane (Methyl chloride)</td>
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<td>30</td>
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<td>95-57-8</td>
<td>2-Chlorophenol</td>
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<td>5.7</td>
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<tr>
<td>3-Chlorophenyl</td>
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<td>3-Chlorophenyl</td>
<td>0.036</td>
<td>30</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>Chrysene</td>
<td>0.059</td>
<td>3.4</td>
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<tr>
<td>o-Cresol</td>
<td>95-48-7</td>
<td>o-Cresol</td>
<td>0.11</td>
<td>5.6</td>
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<tr>
<td>p-Cresidine</td>
<td>120-71-8</td>
<td>p-Cresidine</td>
<td>0.010</td>
<td>0.66</td>
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<tr>
<td>m-Cresol (difficult to distinguish from p-cresol)</td>
<td>106-39-4</td>
<td>m-Cresol (difficult to distinguish from p-cresol)</td>
<td>0.77</td>
<td>5.6</td>
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<tr>
<td>p-Cresol (difficult to distinguish from m-cresol)</td>
<td>106-44-5</td>
<td>p-Cresol (difficult to distinguish from m-cresol)</td>
<td>0.77</td>
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<td>Cyclohexanone</td>
<td>108-94-1</td>
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<td>0.36</td>
<td>NA</td>
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<tr>
<td>1,2-Dibromo-3-chloropropane</td>
<td>96-12-8</td>
<td>1,2-Dibromo-3-chloropropane</td>
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<td>15</td>
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<tr>
<td>Ethylene dibromide (1,2-Dibromomethane)</td>
<td>106-90-4</td>
<td>Ethylene dibromide (1,2-Dibromomethane)</td>
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<td>15</td>
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<td>Dibromomethane</td>
<td>74-65-3</td>
<td>Dibromomethane</td>
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<td>15</td>
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<tr>
<td>2,4-D (2,4-Dichlorophenoxyacetic acid)</td>
<td>94-75-7</td>
<td>2,4-D (2,4-Dichlorophenoxyacetic acid)</td>
<td>0.72</td>
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<tr>
<td>o,p-DDD</td>
<td>53-19-0</td>
<td>o,p-DDD</td>
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<td>p,p-DDD</td>
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<td>p,p-DDD</td>
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<td>o,p-DDE</td>
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<td>p,p-DDE</td>
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<td>o,p-DDT</td>
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<td>0.087</td>
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<td>CAS Number</td>
<td>p,p'-DDT 50-29-3</td>
<td>Dibenzo(a,h)anthracene 50-70-3</td>
<td>Dibenz(a)pyrene 139-65-4</td>
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<td>Waste description and Regulatory subcategory</td>
<td>Regulated hazardous constituent</td>
<td>Concentration in mg/L or Technology Code 4</td>
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<td>CAS number</td>
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<td>Nonwastewaters</td>
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<td>Concentration 1 in mg/L or Technology Code</td>
<td>Concentration 5 in mg/kg unless noted as ''mg/L TCLP'' or Technology Code 4</td>
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<tr>
<td>Fluorene</td>
<td>86–73–7</td>
<td>0.059</td>
<td>3.4</td>
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<tr>
<td>Heptachlor</td>
<td>76–44–8</td>
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<tr>
<td>Heptachlor epoxide</td>
<td>1024–57–3</td>
<td>0.016</td>
<td>0.0066</td>
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<td>1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)</td>
<td>35822–46–9</td>
<td>0.000035</td>
<td>0.0025</td>
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<tr>
<td>1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)</td>
<td>67562–39–4</td>
<td>0.000035</td>
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<td>1,2,3,4,7,8,9-Heptachlorodibenzo-p-dioxins</td>
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<td>Hexachlorobenzene</td>
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<td>87–68–3</td>
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<td>Hexachlorocyclopentadiene</td>
<td>77–47–4</td>
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<td>HxCDFs (All Hexachlorodibenzofurans)</td>
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<td>Hexachloroethane</td>
<td>67–72–1</td>
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<td>30</td>
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<td>Hexachloropropylene</td>
<td>1888–71–7</td>
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<td>Indeno (1,2,3-c,d) pyrene</td>
<td>190–39–5</td>
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<td>Indomethane</td>
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<td>Isobutyl alcohol</td>
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<td>Isodrin</td>
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<tr>
<td>Isosafrole</td>
<td>120–58–1</td>
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<td>Methacrylonitrile</td>
<td>126–58–7</td>
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<td>Methanol</td>
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<td>Methapyrilene</td>
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<td>Methoxychlor</td>
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<td>3-Methylnitroaniline</td>
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<td>4,4-Methylene bis(2-chloroaniline)</td>
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<td>Methyl ethyl ketone</td>
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<td>Methyl isobutyl ketone</td>
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<td>Methyl methacrylate</td>
<td>80–62–6</td>
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<td>Methyl methanesulfonate</td>
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<td>Methyl parathion</td>
<td>298–00–0</td>
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<td>Naphthalene</td>
<td>91–20–3</td>
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<td>2-Naphthylamine</td>
<td>91–15–9</td>
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<tr>
<td>p-Nitroaniline</td>
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<td>CAS Number</td>
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<td>90th percentile MRL</td>
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<td>98-95-3</td>
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<td>5-Nitro-o-toluidine</td>
<td>99-55-8</td>
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<td>28</td>
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<td>p-Nitrophenol</td>
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<tr>
<td>N-Nitrosodiethylamine</td>
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<td>28</td>
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<td>N-Nitrosodimethylamine</td>
<td>62-75-9</td>
<td>0.40</td>
<td>NA</td>
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<td>N-Nitrosodi-n-butylamine</td>
<td>924-16-3</td>
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<td>N-Nitrosopropylamine</td>
<td>100-75-4</td>
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<td>35</td>
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<td>N-Nitrosopropylamine</td>
<td>930-55-2</td>
<td>0.013</td>
<td>35</td>
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<td>1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)</td>
<td>39001-02-0</td>
<td>0.000063</td>
<td>0.005</td>
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<tr>
<td>Total PCBs (sum of all PCB isomers, or all Aroclors)</td>
<td>1308-36-3</td>
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<td>4.6</td>
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<td>Pentachlorobenzene</td>
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<td>10</td>
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<tr>
<td>PeCDFs (All Pentachlorodibenzofurans)</td>
<td>NA</td>
<td>0.000035</td>
<td>0.001</td>
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<tr>
<td>PeCDFs (All Pentachlorodibenzofurans)</td>
<td>NA</td>
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<td>Phenacetin</td>
<td>62-44-2</td>
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<td>Phenanthrene</td>
<td>85-01-8</td>
<td>0.059</td>
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<td>Phenol</td>
<td>108-95-2</td>
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<td>2,4-Dimethylamine (2,4-xylidine)</td>
<td>108-45-2</td>
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<td>0.66</td>
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<td>Phosgene</td>
<td>238-02-2</td>
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<td>Phthalic aldehyde</td>
<td>85-44-9</td>
<td>0.055</td>
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<td>Pronamide</td>
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<tr>
<td>Pyrene</td>
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<td>Pyridine</td>
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<td>Sulfone</td>
<td>94-59-7</td>
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<td>Silvex (2,4,5-TP)</td>
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<td>0.72</td>
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<td>2,4,5-T-Tolyl</td>
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<td>0.055</td>
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<td>TCDDs (All Tetrachlorodibenzofurans)</td>
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<td>TCDDs (All Tetrachlorodibenzofurans)</td>
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<td>1,1,2-Tetrachloroethene</td>
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<td>Toxaphene</td>
<td>8001-39-2</td>
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<td>Bromoform (Tribromomethane)</td>
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<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory ¹</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
<td>Nonwastewaters</td>
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<td>----------------------------------------------------------</td>
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<tr>
<td>K001</td>
<td>Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.</td>
<td>Trichloroethylene</td>
<td>79-01-6</td>
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<td>Trichlorofluoroethane</td>
<td>75-66-4</td>
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<td>2,4,5-Trichlorophenol</td>
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<td>1,1,2-Trichloro-1,2,2-trifluoroethane</td>
<td>76-13-1</td>
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<td>tris(2,3-Dibromopropyl) phosphate</td>
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<td>Antimony</td>
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<td>Arsenic</td>
<td>7440-38-2</td>
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<td>Beryllium</td>
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<td>Cadmium</td>
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¹ Note: NA means not applicable.

² Concentration in mg/kg unless noted as "mg/L TCLP" or "mg/L."
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### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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<th>Concentration(^5) in mg/kg unless noted as &quot;mg/L TCLP&quot; or Technology Code(^4)</th>
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<tr>
<td>K029</td>
<td>Waste from the product steam stripper in the production of 1,1,1-trichloroethane.</td>
<td>Chloroform, 1,2-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Vinyl chloride</td>
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<td>Common name: Chloroform, 1,2-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Vinyl chloride</td>
<td>CAS number: 67–66–3, 107–06–2, 75–35–4, 71–55–6</td>
<td>Concentration in mg/L or Technology Code ⁴: 0.046, 0.21, 0.025, 0.054</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: 6.0, 6.0, 6.0, 6.0</td>
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<td>K030</td>
<td>Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.</td>
<td>o-Dichlorobenzene, p-Dichlorobenzene, Hexachlorobutadiene, Hexachloroethane, Hexachloropropyne, Pentachlorobenzene, Pentachloroethane, 1,2,4,5-Tetrachlorobenzene, Tetrachloroethylene, 1,2,4-Trichlorobenzene</td>
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<td>Common name: o-Dichlorobenzene, p-Dichlorobenzene, Hexachlorobutadiene, Hexachloroethane, Hexachloropropyne, Pentachlorobenzene, Pentachloroethane, 1,2,4,5-Tetrachlorobenzene, Tetrachloroethylene, 1,2,4-Trichlorobenzene</td>
<td>CAS number: 95–50–1, 106–46–7, 87–68–3, 67–72–1, 188–71–7, 608–93–5, 76–01–7, 95–94–3, 127–18–4, 120–82–1</td>
<td>Concentration in mg/L or Technology Code ⁴: 0.088, 0.090, 0.055, 0.055, NA, NA, 0.055, NA, 0.055</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: NA, NA, 30, 30, NA, NA, 14, NA, 19</td>
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<tr>
<td>K031</td>
<td>By-product salts generated in the production of MSMA and cacodylic acid.</td>
<td>Arsenic</td>
<td>Concentration in mg/L or Technology Code ⁴: 7440–38–2, 1.4</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: 5.0 mg/L TCLP</td>
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<td>K032</td>
<td>Wastewater treatment sludge from the production of chlordane.</td>
<td>Hexachlorocyclopentadiene, Chlordane (alpha and gamma iso- mers), Heptachlor, Heptachlor epoxide</td>
<td>Concentration in mg/L or Technology Code ⁴: 77–47–4, 57–74–9, 76–44–8, 1004–57–3</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: 0.057, 0.0033, 0.0012, 0.016</td>
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<td>K033</td>
<td>Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.</td>
<td>Hexachlorocyclopentadiene</td>
<td>Concentration in mg/L or Technology Code ⁴: 77–47–4</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: 0.057</td>
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<td>K034</td>
<td>Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.</td>
<td>Hexachlorocyclopentadiene</td>
<td>Concentration in mg/L or Technology Code ⁴: 77–47–4</td>
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<td>K035</td>
<td>Wastewater treatment sludge generated in the production of cresote.</td>
<td>Aconitane, Anthracene, Benz(a)anthracene, Benzo(a)pyrene, Chrysene, o-Cresol, m-Cresol, p-Cresol (difficult to distinguish from p-cresol)</td>
<td>Concentration in mg/L or Technology Code ⁴: 83–32–9, 120–12–7, 56–55–3, 50–32–8, 218–01–9, 95–48–7, 108–39–4</td>
<td>Concentration in mg/kg unless noted as “mg/L TCLP”; or Technology Code ⁴: NA, NA, 0.059, 0.061, 0.059, 0.11, 0.77</td>
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<td>p-Cresol (difficult to distinguish from m-cresol)</td>
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</table>

| K036 Still bottoms from toluene reclamation distillation in the production of disulfoton. |  |  |
| Disulfoton                                    | 298-04-4   | 0.017    | 6.2      |

| K037 Wastewater treatment sludges from the production of disulfoton. |  |  |
| Disulfoton                                    | 298-04-4   | 0.017    | 6.2      |

| K038 Wastewater from the washing and stripping of phorate production. |  |  |
| Phorate                                       | 298-02-2   | 0.021    | 4.6      |

| K039 Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. |  |  |
| NA                                            | NA         | CARBN: or CMBST | CMBST |

| K040 Wastewater treatment sludge from the production of phorate. |  |  |
| Phorate                                       | 298-02-2   | 0.021    | 4.6      |

| K041 Wastewater treatment sludge from the production of toxaphene. |  |  |
| Toxaphene                                      | 8001-35-2  | 0.0095   | 2.6      |

| K042 Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. |  |  |
| o-Dichlorobenzene                              | 95-50-1    | 0.088    | 6.0      |
| p-Dichlorobenzene                              | 106-46-7   | 0.090    | 6.0      |
| Pentachlorobenzene                             | 609-93-5   | 0.055    | 14       |
| 1,2,4,5-Tetrachlorobenzene                    | 95-94-3    | 0.055    | 14       |
| 1,2,4-Trichlorobenzene                        | 120-80-1   | 0.055    | 19       |

| K043 2,6-Dichlorophenol waste from the production of 2,4-D. |  |  |
| 2,4-Dichlorophenol                             | 120-83-2   | 0.044    | 14       |
| 2,6-Dichlorophenol                             | 187-65-0   | 0.044    | 14       |
| 2,4,5-Trichloropheno1                         | 95-95-4    | 0.18     | 7.4      |
| 2,4,6-Trichloropheno1                         | 88-06-2    | 0.035    | 7.4      |
| 2,3,4,6-Tetrachloropheno1                     | 58-90-2    | 0.030    | 7.4      |
| Pentachloropheno1                              | 87-86-5    | 0.089    | 7.4      |
| Tetrachloroethane                             | 127-19-4   | 0.056    | 6.0      |
| HxCDDs (All Hexachlorodibenzo-p-dioxins)       | NA         | 0.000063 | 0.001    |
| HxCDFs (All Hexachlorodibenzofurans)           | NA         | 0.000063 | 0.001    |
| PeCDDs (All Pentachlorodibenzo-p-dioxins)      | NA         | 0.000063 | 0.001    |
| PeCDFs (All Pentachlorodibenzofurans)          | NA         | 0.000035 | 0.001    |
| TCDDs (All Tetrachlorodibenzo-p-dioxins)       | NA         | 0.000063 | 0.001    |
| TCDFs (All Tetrachlorodibenzofurans)           | NA         | 0.000063 | 0.001    |
### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

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<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
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<td></td>
<td>Common name, CAS number, Concentration in mg/kg or mg/L TCLP, Technology Code</td>
<td>Concentration in mg/L or Technology Code</td>
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<td>K044</td>
<td>Wastewater treatment sludges from the manufacturing and processing of explosives.</td>
<td>NA</td>
<td>NA</td>
<td>DEACT</td>
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<td>K045</td>
<td>Spent carbon from the treatment of wastewater containing explosives.</td>
<td>NA</td>
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<td>K046</td>
<td>Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.</td>
<td>Lead 7439–92–1 0.69 0.75 mg/L TCLP</td>
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<td>K047</td>
<td>Pink/pink water from TNT operations.</td>
<td>NA</td>
<td>NA</td>
<td>DEACT</td>
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<td>K048</td>
<td>Dissolved air flotation (DAF) float from the petroleum refining industry.</td>
<td>Benzene 71–43–2 0.14 10</td>
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<td>Benzo[a]pyrene 50–32–8 0.061 3.4</td>
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<td>bis(2-Ethylhexyl)phthalate 117–81–7 0.28 28</td>
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<td>Chrysene 218–01–9 0.059 3.4</td>
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<td>Di-n-butyl phthalate 84–76–2 0.57 28</td>
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<td>Ethylbenzene 100–61–4 0.057 10</td>
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<td>Fluorine 86–73–7 0.059 NA</td>
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<td>Naphthalene 91–20–3 0.059 5.6</td>
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<td>Phenol 106–55–6 0.039 10</td>
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<td>Pyrene 129–00–0 0.067 8.2</td>
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<td>Toluene 108–88–33 0.080 10</td>
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<td>Xylenes-mixed isomers (sum of α-, m-, and p-xylene concentrations) 1330–20–7 0.32 30</td>
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<td>Nickel 7440–02–0 11 mg/L TCLP</td>
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<td>K049</td>
<td>Slop oil emulsion solids from the petroleum refining industry.</td>
<td>Anthracene 120–12–7 0.059 10</td>
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<tr>
<td></td>
<td></td>
<td>Benzene 71–43–2 0.14 10</td>
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<tr>
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<td>Benzo[a]pyrene 50–32–8 0.061 3.4</td>
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<tr>
<td></td>
<td></td>
<td>bis(2-Ethylhexyl)phthalate 117–81–7 0.28 28</td>
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<tr>
<td></td>
<td>Carbon disulfide 75–15–0 3.8 NA</td>
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<td></td>
<td>Chrysene 218–01–9 0.059 3.4</td>
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<tr>
<td></td>
<td>2,4-Dimethylphenol 105–67–9 0.036 NA</td>
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<td></td>
<td>Ethylbenzene 100–41–4 0.057 10</td>
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<td>Naphthalene 91–20–3 0.059 5.6</td>
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<td>Phenol 106–95–2 0.039 6.2</td>
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<td>EPA Method</td>
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<tr>
<td>Pyrene</td>
<td>129–00–0</td>
<td>67</td>
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<tr>
<td>Toluene</td>
<td>108–88–3</td>
<td>80</td>
<td>10</td>
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<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
<td>1330–20–7</td>
<td>32</td>
<td>30</td>
<td></td>
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<tr>
<td>Cyanides (Total)</td>
<td>7440–47–3</td>
<td>27</td>
<td>590</td>
<td></td>
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<tr>
<td>Lead</td>
<td>7439–92–1</td>
<td>69</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>NA</td>
<td>11 mg/L TCLP</td>
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<tr>
<td><strong>K050</strong> Heat exchanger bundle cleaning sludge from the petroleum refining industry.</td>
<td></td>
<td></td>
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<tr>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
<td>61</td>
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<tr>
<td>Phenol</td>
<td>108–95–2</td>
<td>39</td>
<td>6.2</td>
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</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
<td>12</td>
<td>590</td>
<td></td>
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<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>27</td>
<td>0.60 mg/L TCLP</td>
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<tr>
<td>Lead</td>
<td>7439–92–1</td>
<td>69</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>NA</td>
<td>11 mg/L TCLP</td>
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<tr>
<td><strong>K051</strong> API separator sludge from the petroleum refining industry.</td>
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<tr>
<td>Acenaphthene</td>
<td>83–32–9</td>
<td>59</td>
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<tr>
<td>Anthracene</td>
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<tr>
<td>Benz(a)anthracene</td>
<td>56–56–3</td>
<td>59</td>
<td>3.4</td>
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<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>14</td>
<td>10</td>
<td></td>
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<tr>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
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<td>3.4</td>
<td></td>
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<tr>
<td>Benzo(a)pyrene (diphenyl-)</td>
<td>117–81–7</td>
<td>28</td>
<td>28</td>
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<td>Chryselene</td>
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<td>28</td>
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<td>Di-n-butyl phthalate</td>
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<td>59</td>
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<td>Ethylbenzene</td>
<td>100–41–4</td>
<td>57</td>
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<td>Fluorene</td>
<td>86–73–7</td>
<td>57</td>
<td>0.69</td>
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<td>Naphthalene</td>
<td>91–20–3</td>
<td>57</td>
<td>5.6</td>
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<tr>
<td>Phenanthrene</td>
<td>85–01–8</td>
<td>57</td>
<td>5.6</td>
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<td>Phenol</td>
<td>108–95–2</td>
<td>57</td>
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</tr>
<tr>
<td>Pyrene</td>
<td>129–00–0</td>
<td>67</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>108–88–3</td>
<td>80</td>
<td>10</td>
<td></td>
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<tr>
<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
<td>1330–20–7</td>
<td>32</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
<td>12</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>27</td>
<td>0.60 mg/L TCLP</td>
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<tr>
<td>Lead</td>
<td>7439–92–1</td>
<td>69</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>NA</td>
<td>11 mg/L TCLP</td>
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<td><strong>K052</strong> Tank bottoms (leaded) from the petroleum refining industry.</td>
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<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>14</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
<td>61</td>
<td>3.4</td>
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</tr>
<tr>
<td>o-Cresol</td>
<td>95–48–7</td>
<td>11</td>
<td>5.6</td>
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<tr>
<td>m-Cresol (difficult to distinguish from p-cresol)</td>
<td>106–59–4</td>
<td>77</td>
<td>5.6</td>
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<tr>
<td>p-Cresol (difficult to distinguish from p-cresol)</td>
<td>106–44–5</td>
<td>77</td>
<td>5.6</td>
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<tr>
<td>2,4-Dimethylphenol</td>
<td>105–67–9</td>
<td>36</td>
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<tr>
<td>Ethylbenzene</td>
<td>100–41–4</td>
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<td>10</td>
<td></td>
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<tr>
<td>Naphthalene</td>
<td>91–20–3</td>
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<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85–01–8</td>
<td>57</td>
<td>5.6</td>
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<tr>
<td>Phenol</td>
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<td>57</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
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<td>80</td>
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<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory ¹</td>
<td>Regulated hazardous constituent</td>
<td>Common name</td>
<td>CAS ² number</td>
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<tr>
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<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
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<td></td>
<td>1330–20–7</td>
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<tr>
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<td>Chromium (Total)</td>
<td></td>
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<td>Cyanides (Total)</td>
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<td>Lead</td>
<td></td>
<td></td>
<td>7439–92–1</td>
</tr>
<tr>
<td></td>
<td>Nickel</td>
<td></td>
<td></td>
<td>7440–02–0</td>
</tr>
<tr>
<td>K060</td>
<td>Ammonia still lime sludge from coking operations.</td>
<td>Benzene</td>
<td></td>
<td>71–43–2</td>
</tr>
<tr>
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<td></td>
<td>Benzo(a)pyrene</td>
<td></td>
<td>50–32–8</td>
</tr>
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<td></td>
<td>Naphthalene</td>
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<td>91–20–3</td>
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<td></td>
<td>Phenol</td>
<td></td>
<td>108–96–2</td>
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<tr>
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<td></td>
<td>Cyanides (Total)</td>
<td></td>
<td>57–12–5</td>
</tr>
<tr>
<td>K061</td>
<td>Emission control dust/sludge from the primary production of steel in electric furnaces.</td>
<td>Antimony</td>
<td></td>
<td>7440–36–0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td></td>
<td>7440–38–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td></td>
<td>7440–39–3</td>
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<td></td>
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<td>Beryllium</td>
<td></td>
<td>7440–41–7</td>
</tr>
<tr>
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<td></td>
<td>Cadmium</td>
<td></td>
<td>7440–43–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Total)</td>
<td></td>
<td>7440–47–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td></td>
<td>7439–92–1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
<td></td>
<td>7439–97–6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td></td>
<td>7440–02–0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium</td>
<td></td>
<td>7782–49–2</td>
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<td></td>
<td></td>
<td>Silver</td>
<td></td>
<td>7440–22–4</td>
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<td>Thallium</td>
<td></td>
<td>7440–28–0</td>
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<td></td>
<td></td>
<td>Zinc</td>
<td></td>
<td>7440–66–6</td>
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<tr>
<td>K062</td>
<td>Spent pickles liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).</td>
<td>Chromium (Total)</td>
<td></td>
<td>7440–47–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td></td>
<td>7439–92–1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td></td>
<td>7440–02–0</td>
</tr>
<tr>
<td>K069</td>
<td>Emission control dust/sludge from secondary lead smelting—Calcium Sulfate (Low Lead) Subcategory</td>
<td>Cadmium</td>
<td></td>
<td>7440–43–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td></td>
<td>7439–92–1</td>
</tr>
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<td></td>
<td></td>
<td>Nickel</td>
<td></td>
<td>7440–02–0</td>
</tr>
<tr>
<td>K069</td>
<td>Emission control dust/sludge from secondary lead smelting—Non-Calcium Sulfate (High Lead) Subcategory</td>
<td>Cadmium</td>
<td></td>
<td>7440–43–9</td>
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<tr>
<td></td>
<td></td>
<td>Lead</td>
<td></td>
<td>7439–92–1</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Analyte 1</td>
<td>Concentration 1</td>
<td>Reference 1</td>
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<tr>
<td>K071</td>
<td>Brine purification muds from the mercury cell process in chlorine production, where separately purified brine is not used</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>that are residues from RMERC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K071</td>
<td>Brine purification muds from the mercury cell process in chlorine production, where separately purified brine is not used</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>that are not residues from RMERC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All K071 wastewaters.</td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>0.15</td>
</tr>
<tr>
<td>K073</td>
<td>Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.</td>
<td>Carbon tetrachloride</td>
<td>56-23-5</td>
<td>0.057</td>
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<tr>
<td></td>
<td></td>
<td>Chloroform</td>
<td>67-66-3</td>
<td>0.046</td>
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<td></td>
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<td>Hexachloroethane</td>
<td>67-72-1</td>
<td>0.055</td>
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<td></td>
<td></td>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056</td>
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<td></td>
<td></td>
<td>1,1,1-Trichloroethane</td>
<td>71–55–6</td>
<td>0.054</td>
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<tr>
<td>K083</td>
<td>Distillation bottoms from aniline production.</td>
<td>Aniline</td>
<td>62–53–3</td>
<td>0.81</td>
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<td></td>
<td></td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
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<td></td>
<td>Cyclododecanone</td>
<td>108–94–1</td>
<td>0.36</td>
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<tr>
<td></td>
<td></td>
<td>Diphenylamine (difficult to distinguish from diphenylnitrosamine)</td>
<td>122–39–4</td>
<td>0.92</td>
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<tr>
<td></td>
<td></td>
<td>Diphenylamine (difficult to distinguish from diphenylamine)</td>
<td>86–30–6</td>
<td>0.92</td>
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<td></td>
<td></td>
<td>Nitrobenzene</td>
<td>98–95–3</td>
<td>0.068</td>
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<td></td>
<td></td>
<td>Phenol</td>
<td>108–95–2</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td>7440–02–0</td>
<td>3.98</td>
</tr>
<tr>
<td>K084</td>
<td>Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.</td>
<td>Arsenic</td>
<td>7440–36–2</td>
<td>1.4</td>
</tr>
<tr>
<td>K085</td>
<td>Distillation or fractionation column bottoms from the production of chlorobenzenes.</td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
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<tr>
<td></td>
<td></td>
<td>Chlorobenzene</td>
<td>108–90–7</td>
<td>0.057</td>
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<td></td>
<td></td>
<td>m-Chlorobenzene</td>
<td>541–73–1</td>
<td>0.036</td>
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<td></td>
<td></td>
<td>ortho-Chlorobenzene</td>
<td>95–50–1</td>
<td>0.088</td>
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<td></td>
<td></td>
<td>para-Chlorobenzene</td>
<td>106–46–7</td>
<td>0.090</td>
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<td></td>
<td></td>
<td>Hexachlorobenzene</td>
<td>118–74–1</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total PCBs (sum of all PCB isomers, or all Aroclors)</td>
<td>1336–36–3</td>
<td>0.10</td>
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<tr>
<td></td>
<td></td>
<td>Pentachlorobenzene</td>
<td>606–93–5</td>
<td>0.055</td>
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<tr>
<td></td>
<td></td>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–3</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2,4,6-Tetrachlorobenzene</td>
<td>120–82–1</td>
<td>0.055</td>
</tr>
<tr>
<td>K086</td>
<td>Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tanks and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.</td>
<td>Acetone</td>
<td>67–64–1</td>
<td>0.28</td>
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<td></td>
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<td>Acetophenone</td>
<td>96–66–2</td>
<td>0.010</td>
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<td></td>
<td></td>
<td>bis(2-Ethylhexyl) phthalate</td>
<td>117–81–7</td>
<td>0.28</td>
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<td></td>
<td></td>
<td>n-Butyl alcohol</td>
<td>71–36–3</td>
<td>5.6</td>
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<td></td>
<td></td>
<td>Butylbenzyl phthalate</td>
<td>85–68–7</td>
<td>0.017</td>
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<tr>
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<td></td>
<td>Cyclododecanone</td>
<td>108–94–1</td>
<td>0.36</td>
</tr>
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<td></td>
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<td>o-Dichlorobenzene</td>
<td>95–50–1</td>
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<td></td>
<td></td>
<td>Diethyl phthalate</td>
<td>84–66–2</td>
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<td></td>
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<td>Dimethyl phthalate</td>
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### Treatment Standards for Hazardous Wastes—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
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<td>Common name</td>
<td>CAS number</td>
<td>Concentration $^1$ in mg/L or Technology Code $^4$</td>
<td>Concentration $^1$ in mg/kg unless noted as ''mg/L TCLP'' or Technology Code $^4$</td>
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<td>Di-n-butyl phthalate</td>
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<td>Di-n-octyl phthalate</td>
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<td>Ethyl acetate</td>
<td>141-78-6</td>
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<td>Ethylbenzene</td>
<td>100-41-4</td>
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<td>Methanol</td>
<td>67-56-1</td>
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<td>Methylyl ethyl ketone</td>
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<td>Methyl isobutyl ketone</td>
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<td>Methylene chloride</td>
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<td>Naphthalene</td>
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<td>Nitrobenzene</td>
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<td>Toluene</td>
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<td>1,1,1-Trichloroethane</td>
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<td>Trichloroethylene</td>
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<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
<td>1330-20-7</td>
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<td>Chromium (Total)</td>
<td>7440-47-3</td>
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<td>0.60 mg/L TCLP</td>
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<td>Lead</td>
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<td>0.75 mg/L TCLP</td>
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<tr>
<td>K087</td>
<td>Decanter tank tar sludge from coking operations.</td>
<td>Acenaphthylene</td>
<td>208-96-8</td>
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<td></td>
<td></td>
<td>Benzene</td>
<td>71-43-2</td>
<td>0.14</td>
</tr>
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<td></td>
<td>Benzenne</td>
<td>218-01-9</td>
<td>0.059</td>
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<td></td>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>0.068</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-5</td>
<td>0.0055</td>
</tr>
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<td></td>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.059</td>
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<td></td>
<td></td>
<td>Phenanthrene</td>
<td>85-01-8</td>
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<td>Toluene</td>
<td>108-88-3</td>
<td>0.080</td>
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<tr>
<td></td>
<td></td>
<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
<td>1330-20-7</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>7439-92-1</td>
<td>0.69</td>
</tr>
<tr>
<td>K088</td>
<td>Spent potliners from primary aluminum reduction.</td>
<td>Acenaphthene</td>
<td>83-32-9</td>
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<td>Anthracene</td>
<td>120-12-7</td>
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<td>Benzo(a)anthracene</td>
<td>56-55-3</td>
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<td></td>
<td>Benzo(a)pyrene</td>
<td>50-32-8</td>
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<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene</td>
<td>205-99-2</td>
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<td>Benzo(k)fluoranthene</td>
<td>207-08-9</td>
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<td></td>
<td>Benzo(g,h,i)perylene</td>
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<td>Chrysene</td>
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<td>Dibenz(a,h)anthracene</td>
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<td>Substance</td>
<td>CAS Number</td>
<td>Concentration</td>
<td>TCLP Limit</td>
<td></td>
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<tr>
<td>-----------</td>
<td>------------</td>
<td>---------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206–44–0</td>
<td>0.068 mg/L</td>
<td>3.4 mg/L</td>
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</tr>
<tr>
<td>Indeno[1,2,3-cd]pyrene</td>
<td>100–21–0</td>
<td>0.055 mg/L</td>
<td>28 mg/L</td>
<td></td>
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<tr>
<td>Phanthenene</td>
<td>85–01–8</td>
<td>0.059 mg/L</td>
<td>5.6 mg/L</td>
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<tr>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067 mg/L</td>
<td>3.4 mg/L</td>
<td></td>
</tr>
<tr>
<td>Antimony</td>
<td>7440–36–0</td>
<td>1.3 mg/L</td>
<td>15 mg/L</td>
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<tr>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4 mg/L</td>
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<tr>
<td>Barium</td>
<td>7440–39–3</td>
<td>1.2 mg/L</td>
<td>21 mg/L</td>
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<tr>
<td>Cadmium</td>
<td>7440–41–7</td>
<td>0.69 mg/L</td>
<td>0.11 mg/L</td>
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</tr>
<tr>
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<td>7440–43–9</td>
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<td>Lead</td>
<td>7440–44–8</td>
<td>0.069 mg/L</td>
<td>0.075 mg/L</td>
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<td>Mercury</td>
<td>7440–47–3</td>
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<td>0.025 mg/L</td>
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<tr>
<td>Nickel</td>
<td>7440–48–5</td>
<td>3.98 mg/L</td>
<td>11 mg/L</td>
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</tr>
<tr>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82 mg/L</td>
<td>5.7 mg/L</td>
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</tr>
<tr>
<td>Silver</td>
<td>7440–49–7</td>
<td>0.43 mg/L</td>
<td>0.14 mg/L</td>
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<tr>
<td>Cyanide (Total)</td>
<td>7440–50–0</td>
<td>1.2 mg/L</td>
<td>500 mg/L</td>
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<tr>
<td>Cyanide (Amenable)</td>
<td>7440–51–1</td>
<td>0.086 mg/L</td>
<td>30 mg/L</td>
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</tr>
<tr>
<td>Antimony</td>
<td>7440–36–0</td>
<td>1.3 mg/L</td>
<td>15 mg/L</td>
<td></td>
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<tr>
<td>Barium</td>
<td>7440–39–3</td>
<td>1.2 mg/L</td>
<td>21 mg/L</td>
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<tr>
<td>Cadmium</td>
<td>7440–41–7</td>
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<td>0.11 mg/L</td>
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</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–43–9</td>
<td>2.77 mg/L</td>
<td>0.06 mg/L</td>
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</tr>
<tr>
<td>Lead</td>
<td>7440–44–8</td>
<td>0.069 mg/L</td>
<td>0.075 mg/L</td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>7440–47–3</td>
<td>0.015 mg/L</td>
<td>0.025 mg/L</td>
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</tr>
<tr>
<td>Nickel</td>
<td>7440–48–5</td>
<td>3.98 mg/L</td>
<td>11 mg/L</td>
<td></td>
</tr>
<tr>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82 mg/L</td>
<td>5.7 mg/L</td>
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</tr>
<tr>
<td>Silver</td>
<td>7440–49–7</td>
<td>0.43 mg/L</td>
<td>0.14 mg/L</td>
<td></td>
</tr>
<tr>
<td>Cyanide (Total)</td>
<td>7440–50–0</td>
<td>1.2 mg/L</td>
<td>500 mg/L</td>
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</tr>
<tr>
<td>Cyanide (Amenable)</td>
<td>7440–51–1</td>
<td>0.086 mg/L</td>
<td>30 mg/L</td>
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<tr>
<td>Fluoride</td>
<td>1684–48–8</td>
<td>35 mg/L</td>
<td>NA</td>
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K093 Distillation light ends from the production of phthalic anhydride from ortho-xylene.

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<th>Substance</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>TCLP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</td>
<td>100–21–0</td>
<td>0.055 mg/L</td>
<td>28 mg/L</td>
</tr>
<tr>
<td>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</td>
<td>85–44–9</td>
<td>0.055 mg/L</td>
<td>28 mg/L</td>
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</tbody>
</table>

K094 Distillation bottoms from the production of phthalic anhydride from ortho-xylene.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>TCLP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexachloroethane</td>
<td>67–72–1</td>
<td>0.055 mg/L</td>
<td>30 mg/L</td>
</tr>
<tr>
<td>Pentachloroethene</td>
<td>76–01–1</td>
<td>0.055 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,1,2-Tetrachloroethene</td>
<td>630–20–6</td>
<td>0.057 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,2,2-Tetrachloroethane</td>
<td>79–34–6</td>
<td>0.057 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,1,2-Trichloroethene</td>
<td>79–00–5</td>
<td>0.054 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>79–21–1</td>
<td>0.054 mg/L</td>
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K095 Distillation bottoms from the production of 1,1,1-trichloroethane.

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<th>Substance</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>TCLP Limit</th>
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<tbody>
<tr>
<td>Heptachlor</td>
<td>541–73–1</td>
<td>0.036 mg/L</td>
<td>60 mg/L</td>
</tr>
<tr>
<td>Pentachloroethene</td>
<td>76–01–1</td>
<td>0.055 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,1,2-Tetrachloroethene</td>
<td>630–20–6</td>
<td>0.057 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>120–82–1</td>
<td>0.055 mg/L</td>
<td>19 mg/L</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>79–00–5</td>
<td>0.054 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>79–01–6</td>
<td>0.054 mg/L</td>
<td>6.0 mg/L</td>
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K096 Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

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<th>CAS Number</th>
<th>Concentration</th>
<th>TCLP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroform</td>
<td>57–74–9</td>
<td>0.0033 mg/L</td>
<td>26 mg/L</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>76–44–8</td>
<td>0.0012 mg/L</td>
<td>0.066 mg/L</td>
</tr>
<tr>
<td>Pentachloroethane</td>
<td>76–01–1</td>
<td>0.055 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,1,2-Tetrachloroethene</td>
<td>630–20–6</td>
<td>0.057 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>120–82–1</td>
<td>0.055 mg/L</td>
<td>19 mg/L</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>79–00–5</td>
<td>0.054 mg/L</td>
<td>6.0 mg/L</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>79–01–6</td>
<td>0.054 mg/L</td>
<td>6.0 mg/L</td>
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</tbody>
</table>

K097 Vacuum stripper discharge from the chlordane clarinator in the production of chlordane.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>TCLP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroform</td>
<td>57–74–9</td>
<td>0.0033 mg/L</td>
<td>26 mg/L</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>76–44–8</td>
<td>0.0012 mg/L</td>
<td>0.066 mg/L</td>
</tr>
<tr>
<td>Heptachlor epoxide</td>
<td>1024–57–3</td>
<td>0.016 mg/L</td>
<td>0.066 mg/L</td>
</tr>
</tbody>
</table>

Environmental Protection Agency
<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>None wastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration 1 in mg/L or Technology Code 4</td>
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<tr>
<td>K938</td>
<td>Untreated process wastewater from the production of toxaphene.</td>
<td>Toxaphene</td>
<td>8001–35–2</td>
<td>0.0095</td>
</tr>
<tr>
<td>K939</td>
<td>Untreated wastewater from the production of 2,4-D.</td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>94–75–7</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hexachlorodibenzodioxins (HxCDDs) (All Hexachlorodibenzodioxins)</td>
<td>NA</td>
<td>0.00063</td>
</tr>
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<td></td>
<td></td>
<td>Hexachlorodibenzofurans (HxCDFs) (All Hexachlorodibenzofurans)</td>
<td>NA</td>
<td>0.00063</td>
</tr>
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<td></td>
<td>Tetrachlorodibenzodioxins (TCDDs) (All Tetrachlorodibenzodioxins)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Tetrachlorodibenzofurans (TCDFs) (All Tetrachlorodibenzofurans)</td>
<td>NA</td>
<td>0.00063</td>
</tr>
<tr>
<td>K100</td>
<td>Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.</td>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>0.69</td>
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<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
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<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69</td>
</tr>
<tr>
<td>K101</td>
<td>Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.</td>
<td>o-Nitroaniline</td>
<td>88–74–4</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium</td>
<td>7440–43–9</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>0.15</td>
</tr>
<tr>
<td>K102</td>
<td>Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.</td>
<td>o-Nitrophenol</td>
<td>88–75–5</td>
<td>0.028</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium</td>
<td>7440–43–9</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
<td>7439–97–6</td>
<td>0.15</td>
</tr>
<tr>
<td>K103</td>
<td>Process residues from aniline extraction from the production of aniline.</td>
<td>Aniline</td>
<td>62–53–3</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-Dinitrophenol</td>
<td>51–29–8</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrobenzene</td>
<td>98–95–3</td>
<td>0.068</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenol</td>
<td>108–95–2</td>
<td>0.039</td>
</tr>
</tbody>
</table>
### K104 Combined wastewater streams generated from nitrobenzene/aniline production.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aniline</td>
<td>62-53-3</td>
<td>0.81</td>
<td>14</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>0.14</td>
<td>10</td>
</tr>
<tr>
<td>2,4-Dinitrophenol</td>
<td>98-85-3</td>
<td>0.068</td>
<td>14</td>
</tr>
<tr>
<td>Nitrobenzene</td>
<td>108-95-2</td>
<td>0.039</td>
<td>6.2</td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57-12-5</td>
<td>1.2</td>
<td>590</td>
</tr>
</tbody>
</table>

### K105 Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>0.14</td>
<td>10</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>108-90-7</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>2-Chlorophenol</td>
<td>95-67-8</td>
<td>0.044</td>
<td>5.7</td>
</tr>
<tr>
<td>o-Dichlorobenzene</td>
<td>95-50-1</td>
<td>0.088</td>
<td>6.0</td>
</tr>
<tr>
<td>p-Dichlorobenzene</td>
<td>106-46-7</td>
<td>0.090</td>
<td>6.0</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>0.039</td>
<td>6.2</td>
</tr>
<tr>
<td>2,4,5-Trichlorophenol</td>
<td>95-95-4</td>
<td>0.18</td>
<td>7.4</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>86-06-2</td>
<td>0.035</td>
<td>7.4</td>
</tr>
</tbody>
</table>

### K106 K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>NA</td>
<td>RMERC</td>
</tr>
</tbody>
</table>

### K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>NA</td>
<td>0.20 mg/L TCLP</td>
</tr>
</tbody>
</table>

### Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>NA</td>
<td>0.025 mg/L TCLP</td>
</tr>
</tbody>
</table>

### All K106 wastewaters.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>0.15</td>
<td>NA</td>
</tr>
</tbody>
</table>

### K107 Column bottoms from production separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>CMBST; or CHOXD &amp; CARBN; or BIODG &amp; CARBN</td>
<td>CMBST</td>
</tr>
</tbody>
</table>

### K108 Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>CMBST; or CHOXD &amp; CARBN; or BIODG &amp; CARBN</td>
<td>CMBST</td>
</tr>
</tbody>
</table>

### K109 Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>CMBST; or CHOXD &amp; CARBN; or BIODG &amp; CARBN</td>
<td>CMBST</td>
</tr>
</tbody>
</table>

### K110 Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>CMBST; or CHOXD &amp; CARBN; or BIODG &amp; CARBN</td>
<td>CMBST</td>
</tr>
</tbody>
</table>

### K111 Product washwaters from the production of dinitrotoluene via nitration of toluene.

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrotoluene</td>
<td>121-14-2</td>
<td>0.32</td>
<td>140</td>
</tr>
<tr>
<td>2,6-Dinitrotoluene</td>
<td>606-20-2</td>
<td>0.55</td>
<td>28</td>
</tr>
<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Common name</td>
<td>CAS number</td>
</tr>
<tr>
<td>K112</td>
<td>Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K113</td>
<td>Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K114</td>
<td>Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K115</td>
<td>Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</td>
<td>Nickel NA</td>
<td>7440-02-2 NA</td>
</tr>
<tr>
<td>K116</td>
<td>Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K117</td>
<td>Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.</td>
<td>Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)</td>
<td>74-83-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67-66-3 106-90-4</td>
<td>0.046 6.0</td>
</tr>
<tr>
<td>K118</td>
<td>Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.</td>
<td>Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)</td>
<td>74-83-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67-66-3 106-90-4</td>
<td>0.046 6.0</td>
</tr>
<tr>
<td>K123</td>
<td>Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylendithiocarbamic acid and its salts.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K124</td>
<td>Reactor vent scrubber water from the production of ethylendithiocarbamic acid and its salts.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K125</td>
<td>Filtration, evaporation, and centrifugation solids from the production of ethylendithiocarbamic acid and its salts.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>K126</td>
<td>Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebis(dithiocarbamic acid and its salts.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>K131</td>
<td>Wastewater from the reactor and spent sulfatic acid from the acid dryer from the production of methyl bromide.</td>
<td>Methyl bromide (Bromomethane)</td>
<td>74–83–9</td>
</tr>
<tr>
<td>K132</td>
<td>Spent absorbent and wastewater separator solids from the production of methyl bromide.</td>
<td>Methyl bromide (Bromomethane)</td>
<td>74–83–9</td>
</tr>
<tr>
<td>K136</td>
<td>Still bottoms from the purification of ethylene dibromide via bromination of ethane.</td>
<td>Methyl bromide (Bromomethane)</td>
<td>74–83–9</td>
</tr>
<tr>
<td>K141</td>
<td>Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank sludge from coaling operations).</td>
<td>Benzene</td>
<td>71–43–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)anthracene</td>
<td>56–65–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(ghi)perylene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibenzo(a, l)anthracene</td>
<td>53–70–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indeno[1, 2, 3-cd]pyrene</td>
<td>193–39–5</td>
</tr>
<tr>
<td>K142</td>
<td>Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.</td>
<td>Benzene</td>
<td>71–43–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)anthracene</td>
<td>56–65–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(ghi)perylene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibenzo(a, l)anthracene</td>
<td>53–70–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indeno[1, 2, 3-cd]pyrene</td>
<td>193–39–5</td>
</tr>
<tr>
<td>K143</td>
<td>Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.</td>
<td>Benzene</td>
<td>71–43–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)anthracene</td>
<td>56–65–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(ghi)perylene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td>K144</td>
<td>Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.</td>
<td>Benzene</td>
<td>71–43–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)pyrene</td>
<td>56–65–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)anthracene</td>
<td>50–32–8</td>
</tr>
<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory</td>
<td>Regulated hazardous constituent</td>
<td>Concentration in mg/L unless noted as &quot;mg/L TCLP&quot;</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Waste code</td>
<td>Common name</td>
<td>CAS number</td>
</tr>
<tr>
<td>K145</td>
<td>Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.</td>
<td>Benzo(a)pyrene</td>
<td>56–55–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibenzo(a,h)anthracene</td>
<td>53–70–3</td>
</tr>
<tr>
<td>K147</td>
<td>Tar storage tank residues from coal tar refining.</td>
<td>Benzene</td>
<td>71–43–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(a)anthracene</td>
<td>56–55–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibenzo(a,h)anthracene</td>
<td>53–70–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193–39–5</td>
</tr>
<tr>
<td>K148</td>
<td>Residues from coal tar distillation, including, but not limited to, still bottoms.</td>
<td>Benzo(a)anthracene</td>
<td>56–55–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibenzo(a,h)anthracene</td>
<td>53–70–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193–39–5</td>
</tr>
<tr>
<td>K149</td>
<td>Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)</td>
<td>Chlorobenzene</td>
<td>108–90–7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloroform</td>
<td>67–66–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloromethane</td>
<td>74–87–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p-Dichlorobenzene</td>
<td>106–46–7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hexachlorobenzene</td>
<td>116–74–1</td>
</tr>
<tr>
<td>Compound</td>
<td>CAS Number</td>
<td>RfV</td>
<td>BqV</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Pentachlorobenzene</td>
<td>608–93–5</td>
<td>0.055</td>
<td>10</td>
</tr>
<tr>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–3</td>
<td>0.055</td>
<td>14</td>
</tr>
<tr>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
<td>10</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>56–23–3</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046</td>
<td>6.0</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>74–87–3</td>
<td>0.019</td>
<td>30</td>
</tr>
<tr>
<td>p-Dichlorobenzene</td>
<td>106–46–7</td>
<td>0.030</td>
<td>6.0</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>118–74–1</td>
<td>0.055</td>
<td>10</td>
</tr>
<tr>
<td>Pentachlorobenzene</td>
<td>608–93–5</td>
<td>0.055</td>
<td>10</td>
</tr>
<tr>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–3</td>
<td>0.055</td>
<td>14</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>79–34–5</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056</td>
<td>6.0</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>120–82–1</td>
<td>0.055</td>
<td>19</td>
</tr>
<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td>10</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046</td>
<td>6.0</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>118–74–1</td>
<td>0.055</td>
<td>10</td>
</tr>
<tr>
<td>Pentachlorobenzene</td>
<td>608–93–5</td>
<td>0.055</td>
<td>10</td>
</tr>
<tr>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–3</td>
<td>0.055</td>
<td>14</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056</td>
<td>6.0</td>
</tr>
<tr>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
<td>10</td>
</tr>
</tbody>
</table>

K150 Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

K151 Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- or (methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

K156 Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonewastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration(^1) in mg/L; or Technology Code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methomyl (^{10})</td>
<td>16752–77–5</td>
<td>0.028; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methylene chloride</td>
<td>75–09–2</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methyl ethyl ketone</td>
<td>78–93–3</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenol</td>
<td>108–86–2</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pyridine</td>
<td>110–86–1</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
</tr>
<tr>
<td>K157</td>
<td>Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes</td>
<td>Tetrachloroethane</td>
<td>121–44–8</td>
<td>0.081; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
</tr>
<tr>
<td>K158</td>
<td>Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes</td>
<td>Carbenzadim (^{10})</td>
<td>10605–21–7</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbosulfan (^{10})</td>
<td>1563–66–2</td>
<td>0.006; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbofuran (^{10})</td>
<td>55285–14–8</td>
<td>0.028; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methylene chloride</td>
<td>75–09–2</td>
<td>0.028; or CMBST, CHOXD, BIODG or CARBIN</td>
</tr>
</tbody>
</table>

\(^{1}\) Concentration in mg/L. For wastes where a technology code is listed, the concentration must be achieved using that technology code. When a technology code is not listed, other technologies may be used as long as they achieve the concentration level.

\(^{5}\) Concentration in mg/kg unless noted as "mg/L TCLP."
### K159 Organics from the treatment of thiocarbamate wastes

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Soil Concentration</th>
<th>TCLP Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol</td>
<td>108–95–2</td>
<td>0.039</td>
<td>6.2</td>
</tr>
<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Butylate</td>
<td>2006–41–5</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>EPTC (Eptam)</td>
<td>759–94–4</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>Molinate</td>
<td>2212–67–1</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>Pebulate</td>
<td>1114–71–2</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>Vernolate</td>
<td>1929–77–7</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
</tbody>
</table>

### K161 Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Soil Concentration</th>
<th>TCLP Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>7440–36–0</td>
<td>1.9</td>
<td>1.15 mg/L TCLP</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
<td>5.0 mg/L TCLP</td>
</tr>
<tr>
<td>Carbon disulfide</td>
<td>75–15–0</td>
<td>3.8</td>
<td>4.8 mg/L TCLP</td>
</tr>
<tr>
<td>Dithiocarbamates (total)</td>
<td>NA</td>
<td>0.028; or CMBST, CHOXD, BIODG or CARBN</td>
<td>28; or CMBST</td>
</tr>
<tr>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69</td>
<td>0.75 mg/L TCLP</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>3.98</td>
<td>11.0 mg/L TCLP</td>
</tr>
<tr>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82</td>
<td>5.7 mg/L TCLP</td>
</tr>
</tbody>
</table>

### K169 Crude oil tank sediment from petroleum refining operations.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Soil Concentration</th>
<th>TCLP Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benz(a)anthracene</td>
<td>56–55–3</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191–24–2</td>
<td>0.0055</td>
<td>1.8</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218–01–9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100–41–4</td>
<td>0.057</td>
<td>10</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86–73–7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>81–05–8</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067</td>
<td>8.2</td>
</tr>
<tr>
<td>Toluene (Methyl Benzene)</td>
<td>108–88–3</td>
<td>0.090</td>
<td>10</td>
</tr>
<tr>
<td>Xylene(s) (Total)</td>
<td>1330–33–7</td>
<td>0.32</td>
<td>30</td>
</tr>
</tbody>
</table>

### K170 Clarified slurry oil sediment from petroleum refining operations.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Soil Concentration</th>
<th>TCLP Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benz(a)anthracene</td>
<td>56–55–3</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191–24–2</td>
<td>0.0055</td>
<td>1.8</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218–01–9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100–41–4</td>
<td>0.057</td>
<td>10</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86–73–7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>81–05–8</td>
<td>0.059</td>
<td>5.6</td>
</tr>
<tr>
<td>Indeno[1,2,3-cd]pyrene</td>
<td>193–39–5</td>
<td>0.0055</td>
<td>3.4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
<td>5.6</td>
</tr>
</tbody>
</table>
### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>K171</td>
<td>Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).</td>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene (Methyl Benzene)</td>
<td>108–88–3</td>
<td>0.080</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xylene(s) (Total)</td>
<td>1330–20–7</td>
<td>0.32</td>
</tr>
<tr>
<td>K172</td>
<td>Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media.).</td>
<td>Benz[a]anthracene</td>
<td>56–55–3</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chrysene</td>
<td>218–01–9</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethyl benzene</td>
<td>100–41–4</td>
<td>0.057</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Naphthalene</td>
<td>91–20–3</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenanthrene</td>
<td>81–05–8</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene (Methyl Benzene)</td>
<td>108–88–3</td>
<td>0.080</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xylene(s) (Total)</td>
<td>1330–20–7</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>7740–38–2</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td>7440–02–0</td>
<td>3.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vanadium</td>
<td>7440–62–2</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reactive sulfides</td>
<td>NA</td>
<td>DEACT</td>
</tr>
<tr>
<td>K174</td>
<td>Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.</td>
<td>1,2,3,4,5,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,5,6,7,8-HpCDD)</td>
<td>35822–46–9</td>
<td>0.000035 or CMBST[^11]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2,3,4,5,6,7,8-Hexachlorodibenzo-furan (1,2,3,4,5,6,7,8-HpCDF)</td>
<td>3268–87–9</td>
<td>0.000063 or CMBST[^11]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2,3,4,5,6,7-Hexachlorodibenzo-p-dioxin (OCDD)</td>
<td>36522–46–9</td>
<td>0.000035 or CMBST[^11]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2,3,4,5,6,7-Hexachlorodibenzo-furan (1,2,3,4,5,6,7-HpCDF)</td>
<td>67562–39–4</td>
<td>0.000035 or CMBST[^11]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2,3,4,5,6,7,8-Hexachlorodibenzo-p-dioxin (OCDD)</td>
<td>43465–46–8</td>
<td>0.000063 or CMBST[^11]</td>
</tr>
</tbody>
</table>

[^1]: Concentration in mg/L or Technology Code.
[^4]: Technology Code for TCLP.
<table>
<thead>
<tr>
<th>Compounds</th>
<th>Code</th>
<th>Limit or Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)</td>
<td>39001-02-0</td>
<td>0.000063 or CMBST 11</td>
</tr>
<tr>
<td>PeCDFs (All Pentachlorodibenzofurans)</td>
<td>36088-22-9</td>
<td>0.000063 or CMBST 11</td>
</tr>
<tr>
<td>TCDDs (All tetachlorodibenzo-p-dioxins)</td>
<td>30402-15-4</td>
<td>0.000035 or CMBST 11</td>
</tr>
<tr>
<td>TCDFs (All tetachlorodibenzofurans)</td>
<td>41903-57-5</td>
<td>0.000063 or CMBST 11</td>
</tr>
<tr>
<td>Arsenic</td>
<td>55722-27-5</td>
<td>0.000063 or CMBST 11</td>
</tr>
<tr>
<td>Antimony</td>
<td>7440-36-0</td>
<td>1.4</td>
</tr>
<tr>
<td>pH 12</td>
<td>7438-97-6</td>
<td>5.0 mg/L TCLP</td>
</tr>
</tbody>
</table>

Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process:

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Code</th>
<th>Limit or Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
<td>1.4</td>
</tr>
<tr>
<td>Cadmium</td>
<td>7440-43-9</td>
<td>0.69</td>
</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>0.69</td>
</tr>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide):

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Code</th>
<th>Limit or Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>7440-36-6</td>
<td>1.9</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
<td>1.4</td>
</tr>
<tr>
<td>Cadmium</td>
<td>7440-43-9</td>
<td>0.69</td>
</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>0.69</td>
</tr>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide):

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Code</th>
<th>Limit or Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>7440-36-0</td>
<td>1.9</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
<td>1.4</td>
</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>0.69</td>
</tr>
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</table>

Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process:

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Code</th>
<th>Limit or Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)</td>
<td>35822-39-4</td>
<td>0.000035 or CMBST 11</td>
</tr>
<tr>
<td>1,2,3,4,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)</td>
<td>67562-39-4</td>
<td>0.000035 or CMBST 11</td>
</tr>
<tr>
<td>1,2,3,4,7,8,9-Octachlorodibenzofuran (OCDF)</td>
<td>34465-46-8</td>
<td>0.000063 or CMBST 11</td>
</tr>
<tr>
<td>PeCDFs (All Pentachlorodibenzofurans)</td>
<td>36088-22-9</td>
<td>0.000063 or CMBST 11</td>
</tr>
</tbody>
</table>
## TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration in mg/L or Technology Code</td>
<td>Concentration in mg/kg unless noted as &quot;mg/L TCLP&quot; or Technology Code</td>
</tr>
<tr>
<td>K181</td>
<td>Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis</td>
<td>PeCDFs (All Pentachlorodibenzo-furans)</td>
<td>30402–15–4</td>
<td>0.000035 or CMBST</td>
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<tr>
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<td></td>
<td>TCDDs (All tetrachlorodibenzo-p-dioxins)</td>
<td>41903–57–5</td>
<td>0.000063 or CMBST</td>
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<td></td>
<td></td>
<td>TCDFs (All tetrachlorodibenzo-furans)</td>
<td>55722–27–5</td>
<td>0.000063 or CMBST</td>
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<tr>
<td></td>
<td>Thallium</td>
<td>7440–28–0</td>
<td>1.4</td>
<td>0.20 mg/L TCLP</td>
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<tr>
<td>P001</td>
<td>Warfarin, &amp; salts, when present at concentrations greater than 0.3%</td>
<td>Aniline</td>
<td>62–53–3</td>
<td>0.81</td>
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<tr>
<td></td>
<td></td>
<td>o-Anisidine (2-methoxyaniline)</td>
<td>90–04–0</td>
<td>0.010</td>
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<td></td>
<td></td>
<td>4-Chloroaniline</td>
<td>106–47–8</td>
<td>0.46</td>
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<td></td>
<td></td>
<td>m-Cresidine</td>
<td>120–71–8</td>
<td>0.010</td>
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<td></td>
<td></td>
<td>2,4-Dimethylaniline (2,4-xylene)</td>
<td>95–68–1</td>
<td>0.010</td>
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<tr>
<td></td>
<td></td>
<td>1,2-Phenylenediamine</td>
<td>95–54–5</td>
<td>0.100</td>
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<td></td>
<td></td>
<td>1,3-Phenylenediamine</td>
<td>108–45–2</td>
<td>0.010</td>
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<td></td>
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<td>Warfarin</td>
<td>81–81–2</td>
<td>0.66</td>
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<tr>
<td>P002</td>
<td>1-Acetyl-2-thiourea</td>
<td>1-Acetyl-2-thiourea</td>
<td>591–08–2</td>
<td>(WETOX or CHOXD) fb CARBN, or CMBST</td>
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<tr>
<td>P003</td>
<td>Acrolein</td>
<td>Acrolein</td>
<td>107–02–8</td>
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<tr>
<td>P004</td>
<td>Aldrin</td>
<td>Aldrin</td>
<td>309–00–2</td>
<td>0.021</td>
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<tr>
<td>P005</td>
<td>Allyl alcohol</td>
<td>Allyl alcohol</td>
<td>107–18–6</td>
<td>(WETOX or CHOXD) fb CARBN, or CMBST</td>
</tr>
</tbody>
</table>

### Footnotes

1. Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis.

2. CAS numbers are from the Chemical Abstracts Service Registry and may be obtained from the National Technical Information Service, Springfield, Virginia 22161.

3. Concentration in mg/L or Technology Code.

4. Concentration in mg/kg unless noted as "mg/L TCLP" or Technology Code.
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Molecular Formula</th>
<th>CAS No.</th>
<th>Molecular Weight</th>
<th>Method of Analysis</th>
<th>Limit (mg/L)</th>
<th>Method Technical Notes</th>
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<tr>
<td>P006</td>
<td>Aluminum phosphide</td>
<td>AlP</td>
<td>20859–73–8</td>
<td>170.34</td>
<td>CHOXD; CHRED; or CMBST</td>
<td>0.01</td>
<td>8.0 mg/L TCLP</td>
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<tr>
<td>P007</td>
<td>5-Aminomethyl 3-isoxazolol</td>
<td>C5H8N2O</td>
<td>2763–96–4</td>
<td>116.12</td>
<td>(WETOX or CHOXD) fb CARBN; or CMBST</td>
<td>1.4</td>
<td>5.0 mg/L TCLP</td>
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<td>P008</td>
<td>4-Aminopyridine</td>
<td>C5H5N2</td>
<td>504–24–5</td>
<td>102.11</td>
<td>(WETOX or CHOXD) fb CARBN; or CMBST</td>
<td>0.7</td>
<td>3.0 mg/L TCLP</td>
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<tr>
<td>P009</td>
<td>Ammonium picrate</td>
<td>NH₄NO₃</td>
<td>131–74–8</td>
<td>85.05</td>
<td>CHOXD; CHRED; CARBN, BOD₅, or CMBST</td>
<td>1.0</td>
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<tr>
<td>P010</td>
<td>Arsenic acid</td>
<td>As2O3</td>
<td>7440–38–2</td>
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<td>P011</td>
<td>Arsenic pentoxide</td>
<td>As₂O₅</td>
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<td>P013</td>
<td>Barium cyanide</td>
<td>Ba(CN)₂</td>
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<tr>
<td>P014</td>
<td>Thiophenol (Benzene thiol)</td>
<td>C₄H₅SH</td>
<td>108–98–5</td>
<td>94.15</td>
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<td>5.0 mg/L TCLP</td>
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<tr>
<td>P015</td>
<td>Beryllium dust</td>
<td>Be₂</td>
<td>7440–41–7</td>
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<td>RMETL; or RTHR M</td>
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<tr>
<td>P016</td>
<td>Dichloromethyl ether (Bis(chloromethyl)ether)</td>
<td>C₂H₄Cl₂</td>
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<td>P017</td>
<td>Bromoacetone</td>
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<td>101.03</td>
<td>(WETOX or CHOXD) fb CARBN; or CMBST</td>
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<td>P018</td>
<td>Brucine</td>
<td>C₁₇H₂₈N₂O₃</td>
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<td>359.48</td>
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<td>2-sec-Butyl-4,6-dinitrophenol (Dinoseb)</td>
<td>C₂₀H₂₄N₈O₈</td>
<td>88–85–7</td>
<td>418.44</td>
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<td>Calcium cyanide</td>
<td>Ca(CN)₂</td>
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<td>74.10</td>
<td>1.2</td>
<td>5.0 mg/L TCLP</td>
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<td>P022</td>
<td>Carbon disulfide</td>
<td>C₄H₈S₂</td>
<td>75–15–0</td>
<td>108.16</td>
<td>3.8</td>
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<td>Waste code</td>
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<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
<td>Nonwastewaters</td>
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<td>5344–82–1</td>
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<td>P027</td>
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<td>(WETOX or CHOXD) if CARBN or CMBST</td>
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<tr>
<td>P028</td>
<td>Benzyl chloride</td>
<td>100–44–7</td>
<td>(WETOX or CHOXD) if CARBN or CMBST</td>
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<td>Copper cyanide</td>
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<td>Cyanides (Total)</td>
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<tr>
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<td>Cyanogen chloride</td>
<td>506–77–4</td>
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<td>2-Cyclohexyl-4,6-dinitrophenol</td>
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<td>(WETOX or CHOXD) if CARBN or CMBST</td>
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<td>P036</td>
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<td>Epinephrine</td>
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<td>P043</td>
<td>Diisopropylfluorophosphate (DFP)</td>
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<td>Endrin aldehyde</td>
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<td>151–56–4</td>
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<tr>
<td>Waste code</td>
<td>Waste description and treatment/Regulatory subcategory(^{1})</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
<td>Nonwastewaters</td>
<td></td>
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</tr>
<tr>
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<td>Concentration(^{2}) in mg/L; or Technology Code(^{4})</td>
<td>Concentration(^{2}) in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code(^{4})</td>
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<tr>
<td>P056</td>
<td>Fluorine (measured in wastewaters only)</td>
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<td>35</td>
<td>ADGAS fb NEUTR</td>
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<td>Fluoroacetamide</td>
<td>640–19–7</td>
<td>(WETOX or CHOXD) fb CARBN, or CMBST</td>
<td>CMBST</td>
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<tr>
<td>P058</td>
<td>Fluoroacetic acid, sodium salt</td>
<td>62–74–8</td>
<td>(WETOX or CHOXD) fb CARBN, or CMBST</td>
<td>CMBST</td>
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<td>Hydrogen cyanide</td>
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<td>Isocyanic acid, ethyl ester</td>
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<td>(WETOX or CHOXD) fb CARBN, or CMBST</td>
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<td>Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMER.</td>
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<td>Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMER, and contain greater than or equal to 20 mg/kg total mercury.</td>
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### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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<td>Strychnine and salts</td>
<td>Strychnine and salts</td>
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<td>Thallium selenite</td>
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### Treatment Standards for Hazardous Wastes—Continued

[Note: NA means not applicable]

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<th>Regulated hazardous constituent</th>
<th>Concentration&lt;sup&gt;1&lt;/sup&gt; in mg/L or Technology Code&lt;sup&gt;4&lt;/sup&gt;</th>
<th>Concentration&lt;sup&gt;5&lt;/sup&gt; in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code&lt;sup&gt;4&lt;/sup&gt;</th>
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<td>Zinc phosphide when present at concentrations greater than 10%.</td>
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<sup>1</sup> Waste code and regulatory subcategory.

<sup>2</sup> CAS number.

<sup>3</sup> Concentration in mg/L unless noted as "mg/L TCLP".

<sup>4</sup> Technology Code.

<sup>5</sup> Concentration in mg/kg unless noted.

<sup>7</sup> Cyanides (Amenable).

<sup>10</sup> These substances may also require a permit under the National Pollutant Discharge Elimination System (NPDES) program.
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Note: The above table lists various compounds and their corresponding CAS numbers, along with their WETOX, CHOXD, BIODG, CARBN, and CMBST values. The table also includes notes for Acetone and Acetonitrile, specifying that Acetonitrile is an alternate standard for nonwastewaters only.
<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
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<td>CAS number</td>
<td>Concentration(^1) in mg/L or Technology Code(^2)</td>
<td>Concentration(^3) in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code(^4)</td>
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<td>U005</td>
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<td>Acetyl chloride</td>
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<td>Benzene sulfonyle chloride</td>
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<td>bis(2-Ethylhexyl) phthalate</td>
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<td>U029</td>
<td>Methyl bromide (Bromomethane)</td>
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<td>U030</td>
<td>4-Bromophenyl phenyl ether</td>
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<td>p,p'-DDE</td>
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### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

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<th>Waste code</th>
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<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
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<td>1,4-Dichloro-2-butene</td>
<td>cis,1,4-Dichloro-2-butene</td>
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<td>trans-1,4-Dichloro-2-butene</td>
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<td>U076</td>
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*Note: NA means not applicable*
<p>| U077 | 1,2-Dichloroethane | 1,2-Dichloroethane | 107–06–2 | 0.21 | 6.0 |
| U078 | 1,1-Dichloroethylene | 1,1-Dichloroethylene | 75–35–4 | 0.025 | 6.0 |
| U079 | trans-1,2-Dichloroethylene | trans-1,2-Dichloroethylene | 156–60–5 | 0.054 | 30 |
| U080 | Methylene chloride | Methylene chloride | 75–09–2 | 0.089 | 30 |
| U081 | 2,4-Dichlorophenol | 2,4-Dichlorophenol | 120–83–2 | 0.044 | 14 |
| U082 | 2,6-Dichlorophenol | 2,6-Dichlorophenol | 87–65–0 | 0.044 | 14 |
| U083 | 1,2-Dichloropropane | 1,2-Dichloropropane | 78–87–5 | 0.85 | 18 |
| U084 | 1,3-Dichloropropylene | cis-1,3-Dichloropropylene | 10061–01–5 | 0.036 | 18 |
| U085 | 1,2,3,4-Tetrahydropyridine | 1,2,3,4-Diepoxybutane | 1464–53–5 | (WETOX or CHOXD) | CARBN, or CMBST |
| U086 | N,N'-Diethylhydrazine | N,N'-Diethylhydrazine | 1615–80–1 | CHOXD; CHRED; CARBN, BIDG, or CMBST |
| U087 | O,O-Diethyl S-methylene thiophosphate | O,O-Diethyl S-methylene thiophosphate | 3288–58–2 | CARBN, or CMBST |
| U088 | Diethyl phthalate | Diethyl phthalate | 84–66–2 | 0.20 | 28 |
| U089 | Diethyl stilbestrol | Diethyl stilbestrol | 56–53–1 | (WETOX or CHOXD) | CARBN, or CMBST |
| U090 | Dihydrosafrole | Dihydrosafrole | 94–58–6 | (WETOX or CHOXD) | CARBN, or CMBST |
| U091 | 3,3'-Dimethoxybenzidine | 3,3'-Dimethoxybenzidine | 119–90–4 | (WETOX or CHOXD) | CARBN, or CMBST |
| U092 | Diethylamine | Diethylamine | 124–40–3 | (WETOX or CHOXD) | CARBN, or CMBST |
| U093 | p-Dimethylaminoazobenzene | p-Dimethylaminoazobenzene | 60–11–7 | 0.13 | CMBST |
| U094 | 7,12-Dimethylbenz(a)anthracene | 7,12-Dimethylbenz(a)anthracene | 57–97–6 | (WETOX or CHOXD) | CARBN, or CMBST |</p>
<table>
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<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Common name</th>
<th>CAS number</th>
<th>Concentration ¹ in mg/L; or Technology Code ⁴</th>
<th>Concentration ⁵ in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code ⁴</th>
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<td>alpha, alpha-Dimethyl benzyl hydroperoxide</td>
<td>alpha, alpha-Dimethyl benzyl hydroperoxide</td>
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<td>Dimethylcarbamoyl chloride</td>
<td>Dimethylcarbamoyl chloride</td>
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<td>U098</td>
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<td>1,1-Dimethylhydrazine</td>
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<td>U102</td>
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<td>U105</td>
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<td>(WETOX or CHOXD) &amp; CARBN; or CMBST</td>
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<td>U114</td>
<td>Ethylenebisdithiocarbamic acid salts and esters</td>
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<td>111–54–6</td>
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### Treatment Standards for Hazardous Wastes—Continued

[Note: NA means not applicable]

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<th>Nonwastewaters</th>
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| U164 | Methylthiourea | Methylthiourea | 56–04–2 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST 
| U165 | Naphthalene | Naphthalene | 91–20–3 | 0.059 | 5.6 | CMBST |
| U166 | 1,4-Naphthoquinone | 1,4-Naphthoquinone | 130–15–4 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U167 | 1-Naphthylamine | 1-Naphthylamine | 134–32–7 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U168 | 2-Naphthylamine | 2-Naphthylamine | 91–69–8 | 0.52 | 0.7 | CMBST |
| U169 | Nitrobenzene | Nitrobenzene | 98–95–3 | 0.068 | 14 | CMBST |
| U170 | p-Nitrophenol | p-Nitrophenol | 100–02–7 | 0.12 | 29 | 
| U171 | 2-Nitropropane | 2-Nitropropane | 79–46–9 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U172 | N-Nitrosodi-n-butylamine | N-Nitrosodi-n-butylamine | 924–16–3 | 0.040 | 17 | 
| U173 | N-Nitrosodiethanolamine | N-Nitrosodiethanolamine | 1116–54–7 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U174 | N-Nitrosodiethylenetetramine | N-Nitrosodiethylenetetramine | 55–19–5 | 0.40 | 17 | 
| U175 | N-Nitroso-N-ethylurea | N-Nitroso-N-ethylurea | 759–73–9 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U176 | N-Nitroso-N-methylurethane | N-Nitroso-N-methylurethane | 684–93–5 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U177 | N-Nitroso-N-methylurethane | N-Nitroso-N-methylurethane | 615–53–2 | (WETOX or CHOXD) fb CARBN, or CMBST | CMBST |
| U178 | N-Nitrosopiperidine | N-Nitrosopiperidine | 100–75–4 | 0.013 | 36 | 

Environmental Protection Agency
<table>
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<th>Waste description and treatment/Regulatory subcategory</th>
<th>Regulated hazardous constituent</th>
<th>Common name</th>
<th>CAS number</th>
<th>Concentration (^1) in mg/L or Technology Code (^4)</th>
<th>Concentration (^5) in mg/kg unless noted as “mg/L TCLP” or Technology Code (^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U180</td>
<td>N-Nitrosopyrrolidine</td>
<td>N-Nitrosopyrrolidine</td>
<td>930–55–2</td>
<td>0.013</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>U181</td>
<td>5-Nitro-o-toluidine</td>
<td>5-Nitro-o-toluidine</td>
<td>99–55–8</td>
<td>0.32</td>
<td>28</td>
<td></td>
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<tr>
<td>U182</td>
<td>Paraldehyde</td>
<td>Paraldehyde</td>
<td>123–63–7</td>
<td>(WETOX or CHOXD) &amp; CARBN; or CMBST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U183</td>
<td>Pentachlorobenzene</td>
<td>Pentachlorobenzene</td>
<td>608–93–5</td>
<td>0.055</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>U184</td>
<td>Pentachloroethane</td>
<td>Pentachloroethane</td>
<td>76–01–7</td>
<td>(WETOX or CHOXD) &amp; CARBN; or CMBST</td>
<td>6.0</td>
<td></td>
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<tr>
<td>U185</td>
<td>Pentachloronitrobenzene</td>
<td>Pentachloronitrobenzene</td>
<td>82–66–8</td>
<td>0.055</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>U186</td>
<td>1,3-Pentadiene</td>
<td>1,3-Pentadiene</td>
<td>504–60–9</td>
<td>(WETOX or CHOXD) &amp; CARBN; or CMBST</td>
<td></td>
<td></td>
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<tr>
<td>U187</td>
<td>Phenacetin</td>
<td>Phenacetin</td>
<td>62–44–2</td>
<td>0.081</td>
<td>16</td>
<td></td>
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<tr>
<td>U188</td>
<td>Phenol</td>
<td>Phenol</td>
<td>108–95–2</td>
<td>0.039</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>U189</td>
<td>Phosphorus sulfide</td>
<td>Phosphorus sulfide</td>
<td>1314–80–3</td>
<td>CHOXD: CHRED; or CMBST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U190</td>
<td>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</td>
<td>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</td>
<td>100–21–0, 85–44–9</td>
<td>0.055, 0.055</td>
<td>28, 28</td>
<td></td>
</tr>
<tr>
<td>U191</td>
<td>2-Picoline</td>
<td>2-Picoline</td>
<td>109–06–8</td>
<td>(WETOX or CHOXD) &amp; CARBN; or CMBST</td>
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<td></td>
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<tr>
<td>U192</td>
<td>Pronamide</td>
<td>Pronamide</td>
<td>23,950–58–5</td>
<td>0.93</td>
<td>1.5</td>
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<tr>
<td>U193</td>
<td>1,3-Propane sultone</td>
<td>1,3-Propane sultone</td>
<td>1120–71–4</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
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<tr>
<td>U194</td>
<td>n-Propylamine</td>
<td>n-Propylamine</td>
<td>107–10–8</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
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<tr>
<td>U196</td>
<td>Pyridine</td>
<td>Pyridine</td>
<td>110–86–1</td>
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<tr>
<td>U197</td>
<td>p-Benzoxquinone</td>
<td>p-Benzoxquinone</td>
<td>106–51–4</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
<td></td>
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<tr>
<td>U200</td>
<td>Reserpine</td>
<td>Reserpine</td>
<td>50–55–5</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
<td></td>
</tr>
<tr>
<td>U201</td>
<td>Resorcinol</td>
<td>Resorcinol</td>
<td>108–46–3</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
<td></td>
</tr>
<tr>
<td>U203</td>
<td>Safrole</td>
<td>Safrole</td>
<td>94–59–7</td>
<td>0.81</td>
<td>22</td>
<td></td>
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<tr>
<td>U204</td>
<td>Selenium dioxide</td>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82</td>
<td>5.7 mg/L TCLP</td>
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<tr>
<td>U205</td>
<td>Selenium sulfide</td>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82</td>
<td>5.7 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td>U206</td>
<td>Streptozotocin</td>
<td>Streptozotocin</td>
<td>18883–66–4</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
<td></td>
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<tr>
<td>U207</td>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–5</td>
<td>0.55</td>
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<td>U208</td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>630–20–6</td>
<td>0.57</td>
<td>6.0</td>
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<td>U209</td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>79–34–5</td>
<td>0.57</td>
<td>6.0</td>
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<tr>
<td>U210</td>
<td>Tetrachloroethylene</td>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.96</td>
<td>6.0</td>
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<tr>
<td>U211</td>
<td>Carbon tetrachloride</td>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.57</td>
<td>6.0</td>
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<tr>
<td>U213</td>
<td>Tetrahydrofuran</td>
<td>Tetrahydrofuran</td>
<td>109–99–9</td>
<td>(WETOX or CHOXD) ft CARBN; or CMBST</td>
<td>CMBST</td>
<td></td>
</tr>
<tr>
<td>U214</td>
<td>Thallium (I) acetate</td>
<td>Thallium (measured in wastewaters only)</td>
<td>7440–28–0</td>
<td>1.4</td>
<td>RTHRM; or STABL</td>
<td></td>
</tr>
</tbody>
</table>
### TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory¹</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration³ in mg/L; or Technology Code⁴</td>
<td>Concentration⁵ in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code⁴</td>
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<tr>
<td>U215</td>
<td>Thallium (I) carbonate</td>
<td>Thallium (measured in wastewaters only)</td>
<td>7440–28–0</td>
<td>1.4</td>
</tr>
<tr>
<td>U216</td>
<td>Thallium (I) chloride</td>
<td>Thallium (measured in wastewaters only)</td>
<td>7440–28–0</td>
<td>1.4</td>
</tr>
<tr>
<td>U217</td>
<td>Thallium (I) nitrate</td>
<td>Thallium (measured in wastewaters only)</td>
<td>7440–28–0</td>
<td>1.4</td>
</tr>
<tr>
<td>U218</td>
<td>Thioacetamide</td>
<td>Thioacetamide</td>
<td>62–55–5</td>
<td>(WETOX or CHOXD) ft CARBN, or OMBST</td>
</tr>
<tr>
<td>U219</td>
<td>Thiourea</td>
<td>Thiourea</td>
<td>62–56–6</td>
<td>(WETOX or CHOXD) ft CARBN, or OMBST</td>
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<tr>
<td>U220</td>
<td>Toluene</td>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
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<tr>
<td>U221</td>
<td>Toluenediamine</td>
<td>Toluenediamine</td>
<td>25376–45–8</td>
<td>CARBN, or OMBST</td>
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<tr>
<td>U222</td>
<td>o-Toluidine hydrochloride</td>
<td>o-Toluidine hydrochloride</td>
<td>636–21–5</td>
<td>(WETOX or CHOXD) ft CARBN, or OMBST</td>
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<tr>
<td>U223</td>
<td>Toluene diisocyanate</td>
<td>Toluene diisocyanate</td>
<td>26471–62–3</td>
<td>CARBN, or OMBST</td>
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<tr>
<td>U225</td>
<td>Bromoform (Trichloromethane)</td>
<td>Bromoform (Trichloromethane)</td>
<td>75–25–2</td>
<td>0.63</td>
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<tr>
<td>U226</td>
<td>1,1,1-Trichloroethane</td>
<td>1,1,1-Trichloroethane</td>
<td>71–55–6</td>
<td>0.054</td>
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<tr>
<td>U227</td>
<td>1,1,2-Trichloroethane</td>
<td>1,1,2-Trichloroethane</td>
<td>79–00–5</td>
<td>0.054</td>
</tr>
<tr>
<td>U228</td>
<td>Trichloroethylene</td>
<td>Trichloroethylene</td>
<td>79–01–6</td>
<td>0.054</td>
</tr>
<tr>
<td>U234</td>
<td>1,3,5-Trinitrobenzene</td>
<td>1,3,5-Trinitrobenzene</td>
<td>99–35–4</td>
<td>(WETOX or CHOXD) ft CARBN, or OMBST</td>
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<tr>
<td>Code</td>
<td>Substance</td>
<td>CAS Number</td>
<td>126–72–7</td>
<td>0.11</td>
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<td>------</td>
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<tr>
<td>U235</td>
<td>tris-(2,3-Dibromopropyl)-phosphate</td>
<td>188–86–6</td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>U236</td>
<td>Trypan Blue</td>
<td>72–67–1</td>
<td>0.11</td>
<td>0.10</td>
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<tr>
<td>U237</td>
<td>Uracil mustard</td>
<td>66–67–1</td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>U238</td>
<td>Urethane (Ethyl carbamate)</td>
<td>1330–20–7</td>
<td>0.32</td>
<td>30</td>
</tr>
<tr>
<td>U239</td>
<td>Xylenes</td>
<td>94–75–7</td>
<td>0.72</td>
<td>10</td>
</tr>
<tr>
<td>U240</td>
<td>2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters</td>
<td>NA</td>
<td>0.035</td>
<td>30</td>
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<tr>
<td>U241</td>
<td>Hexachloropropylene</td>
<td>188–86–6</td>
<td>0.035</td>
<td>30</td>
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<td>U242</td>
<td>Thiram</td>
<td>137–26–8</td>
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<tr>
<td>U243</td>
<td>Cyanogen bromide</td>
<td>506–68–3</td>
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<td>U244</td>
<td>Methoxychlor</td>
<td>72–43–5</td>
<td>0.035</td>
<td>30</td>
</tr>
<tr>
<td>U245</td>
<td>Warfarin, &amp; salts, when present at concentrations of 0.3% or less</td>
<td>81–81–2</td>
<td>0.035</td>
<td>30</td>
</tr>
<tr>
<td>U246</td>
<td>Zinc phosphide, Zn₃P₂, when present at concentrations of 10% or less</td>
<td>1314–84–7</td>
<td>0.035</td>
<td>30</td>
</tr>
</tbody>
</table>

---

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This table details various substances and their concentrations in terms of CAS numbers and their respective limits.
<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description and treatment/Regulatory subcategory&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters</th>
<th>Nonwastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Common name</td>
<td>CAS number</td>
<td>Concentration&lt;sup&gt;2&lt;/sup&gt; in mg/L; or Technology Code&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Concentration&lt;sup&gt;3&lt;/sup&gt; in mg/kg unless noted as &quot;mg/L TCLP&quot;; or Technology Code&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>U280</td>
<td>Barban</td>
<td>101–27–9</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U328</td>
<td>o-Toluidine</td>
<td>95–53–4</td>
<td>CMBST; or CHOXD (BIODG or CARBN)</td>
<td>CARBN</td>
</tr>
<tr>
<td>U333</td>
<td>p-Toluidine</td>
<td>106–49–0</td>
<td>CMBST; or CHOXD (BIODG or CARBN)</td>
<td>CARBN</td>
</tr>
<tr>
<td>U353</td>
<td>2-Ethoxyethanol</td>
<td>110–80–5</td>
<td>CMBST; or CHOXD (BIODG or CARBN)</td>
<td>CARBN</td>
</tr>
<tr>
<td>U364</td>
<td>Bendiocarb phenol&lt;sup&gt;10&lt;/sup&gt;</td>
<td>22961–82–6</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U367</td>
<td>Carbofuran phenol&lt;sup&gt;10&lt;/sup&gt;</td>
<td>1563–38–8</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U372</td>
<td>Carbendazim&lt;sup&gt;10&lt;/sup&gt;</td>
<td>10605–21–7</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U373</td>
<td>Propham&lt;sup&gt;10&lt;/sup&gt;</td>
<td>122–42–9</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U387</td>
<td>Prosulfocarb&lt;sup&gt;13&lt;/sup&gt;</td>
<td>52888–80–9</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U389</td>
<td>Triallate&lt;sup&gt;10&lt;/sup&gt;</td>
<td>2303–17–5</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U394</td>
<td>A2213&lt;sup&gt;10&lt;/sup&gt;</td>
<td>30558–43–1</td>
<td>0.042; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
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<td>Code</td>
<td>Chemical Name</td>
<td>CAS Number</td>
<td>LOEC Value</td>
<td>LOEC Value Details</td>
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<td>--------------------</td>
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</tr>
<tr>
<td>U395</td>
<td>Diethylene glycol, dicarbamate</td>
<td>5952–26–1</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U404</td>
<td>Triethylamine</td>
<td>121–44–8</td>
<td>0.081; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.5; or CMBST</td>
</tr>
<tr>
<td>U409</td>
<td>Thiophanate-methyl</td>
<td>23564–05–8</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U410</td>
<td>Thiodicarb</td>
<td>59669–26–0</td>
<td>0.019; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
<tr>
<td>U411</td>
<td>Propoxur</td>
<td>114–26–1</td>
<td>0.056; or CMBST, CHOXD, BIODG or CARBN</td>
<td>1.4; or CMBST</td>
</tr>
</tbody>
</table>
FOOTNOTES TO TREATMENT STANDARD TABLE 268.40

1 The waste descriptions provided in this table do not replace waste descriptions in 40 CFR 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.

2 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

3 Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.

4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.

5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264 Subpart O or Part 265 Subpart Q, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

6 [Reserved]

7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

8 These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See §268.1(c)(3) and (4)).

9 These wastes, when rendered nonhazardous and then subsequently injected in a Class SDWA well, are not subject to treatment standards. (See §148.1(d)).

10 The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1 of this Part, for nonwastewaters; and biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at §268.42 Table 1 of this Part, for wastewaters.

11 For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266, (2) combustion units permitted under 40 CFR Part 264, Subpart O, or (3) combustion units operating under 40 CFR 265, Subpart Q, which have obtained a determination of equivalent treatment under 268.42(b).

12 Disposal of K175 wastes that have complied with all applicable 40 CFR 268.40 treatment standards must also be macroencapsulated in accordance with 40 CFR 268.45 Table 1 unless the waste is placed in:
   (1) A Subtitle C monofill containing only K175 wastes that meet all applicable 40 CFR 268.40 treatment standards; or
   (2) A dedicated Subtitle C landfill cell in which all other wastes being co-disposed are at pH≤6.0.

[59 FR 48046, Sept. 19, 1994]

EDITORIAL NOTE: For Federal Register citations affecting §268.40, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§268.41 Treatment standards expressed as concentrations in waste extract.

For the requirements previously found in this section and for treatment standards in Table CCWE—Constituent Concentrations in Waste Extracts, refer to §268.40.

[59 FR 48103, Sept. 19, 1994]
Environmental Protection Agency § 268.42

§ 268.42 Treatment standards expressed as specified technologies.

Note: For the requirements previously found in this section in Table 2—Technology-Based Standards By RCRA Waste Code, and Table 3—Technology-Based Standards for Specific Radioactive Hazardous Mixed Waste, refer to §268.40.

(a) The following wastes in the table in §268.40 “Treatment Standards for Hazardous Wastes,” for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in the table entitled “Technology Codes and Description of Technology-Based Standards” in this section.

<table>
<thead>
<tr>
<th>Technology code</th>
<th>Description of technology-based standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADGAS:</td>
<td>Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid)—venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.</td>
</tr>
<tr>
<td>AMLGM:</td>
<td>Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.</td>
</tr>
<tr>
<td>BIODG:</td>
<td>Biodestruction of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the biodestruction of many organic constituents that cannot be directly analyzed in wastewater residues).</td>
</tr>
<tr>
<td>CARBN:</td>
<td>Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.</td>
</tr>
<tr>
<td>CHOXD:</td>
<td>Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) persulfates; (6) persulfates; (7) peroxides; (8) peroxides; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.</td>
</tr>
<tr>
<td>CHRED:</td>
<td>Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.</td>
</tr>
<tr>
<td>CMBST:</td>
<td>High-temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 40 CFR part 264, subpart O, and 40 CFR part 265, subpart O, or 40 CFR part 266, subpart H, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.</td>
</tr>
<tr>
<td>DEACT:</td>
<td>Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.</td>
</tr>
<tr>
<td>FSUBS:</td>
<td>Fuel substitution in units operated in accordance with applicable technical operating requirements.</td>
</tr>
<tr>
<td>HLVIT:</td>
<td>Sterilization of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.</td>
</tr>
<tr>
<td>IMERC:</td>
<td>Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart O and part 265 subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).</td>
</tr>
<tr>
<td>INCIN:</td>
<td>Incineration in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart O and part 265 subpart O.</td>
</tr>
<tr>
<td>LLEXT:</td>
<td>Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.</td>
</tr>
<tr>
<td>Technology code</td>
<td>Description of technology-based standards</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>MACRO:</td>
<td>Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 40 CFR 260.10.</td>
</tr>
<tr>
<td>NEUTR:</td>
<td>neutralizes with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.</td>
</tr>
<tr>
<td>NLDBR:</td>
<td>No land disposal based on recycling.</td>
</tr>
<tr>
<td>POLYM:</td>
<td>Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.</td>
</tr>
<tr>
<td>PRECP:</td>
<td>Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (i.e., containing oxides and/or hydroxides of calcium and/or magnesium); (2) caustic (i.e., sodium hydroxide and/or potassium hydroxide); (3) soda ash (i.e., sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional floculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.</td>
</tr>
<tr>
<td>RBERY:</td>
<td>Thermal recovery of Beryllium.</td>
</tr>
<tr>
<td>RCGAS:</td>
<td>Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.</td>
</tr>
<tr>
<td>RCORR:</td>
<td>Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (i.e., thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid—Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.</td>
</tr>
<tr>
<td>RLEAD:</td>
<td>Thermal recovery of lead in secondary lead smelters.</td>
</tr>
<tr>
<td>RMERG:</td>
<td>Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).</td>
</tr>
<tr>
<td>RMETL:</td>
<td>Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid (i.e., zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (i.e., crystallization)—Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.</td>
</tr>
<tr>
<td>RORG:</td>
<td>Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals)—Note: this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.</td>
</tr>
<tr>
<td>RTHRM:</td>
<td>Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 40 CFR 260.10 (1), (6), (7), (11), and (12) under the definition of &quot;industrial furnaces&quot;.</td>
</tr>
<tr>
<td>RZINC:</td>
<td>Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.</td>
</tr>
<tr>
<td>STABL:</td>
<td>Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust)—this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.</td>
</tr>
<tr>
<td>SSTRP:</td>
<td>Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.</td>
</tr>
<tr>
<td>VTD:</td>
<td>Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.</td>
</tr>
<tr>
<td>WETOX:</td>
<td>Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).</td>
</tr>
</tbody>
</table>

TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS—Continued
(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or specified in Table 1 of §268.45 for hazardous debris. The applicant must submit information demonstrating that his treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or in Table 1 of §268.45 for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

(c) As an alternative to the otherwise applicable subpart D treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

1. The lab packs comply with the applicable provisions of 40 CFR 264.316 and 40 CFR 265.316;
2. The lab pack does not contain any of the wastes listed in Appendix IV to part 268;
3. The lab packs are incinerated in accordance with the requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O; and
4. Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in subpart D of this part.

(d) Radioactive hazardous mixed wastes are subject to the treatment standards in §268.40. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in §268.45.

§ 268.44 Variance from a treatment standard.

(a) Based on a petition filed by a generator or treater of hazardous waste, the Administrator may approve a variance from an applicable treatment standard if:
§ 268.44

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(b) Each petition must be submitted in accordance with the procedures in §260.20.

(c) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition 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.

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator will give public notice in the FEDERAL REGISTER of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the FEDERAL REGISTER.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for restricted wastes found under §268.7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the Administrator or his or her delegated representative may approve a site-specific variance from an applicable treatment standard if:

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

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(3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under this paragraph must:

(i) At a minimum, impose alternative land disposal restriction treatment standards that, using a reasonable maximum exposure scenario:

(A) For carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from $10^{-4}$ to $10^{-6}$; and

(B) For constituents with non-carcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.

(ii) Not consider post-land-disposal controls.

(4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) natural background concentrations at the site where the contaminated soil will land disposed.

(5) Public notice and a reasonable opportunity for public comment must be provided before granting or denying a petition.

Each application for a site-specific variance from a treatment standard must include the information in §260.20(b)(1)–(4):

(j) After receiving an application for a site-specific variance from a treatment standard, the Assistant Administrator, or his delegated representative, may request any additional information or samples which may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under §268.7.

(i) During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(m) For all variances, the petitioner must also demonstrate that compliance with any given treatment variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, EPA may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to 40 CFR 266.20 through 266.23.

(n) [Reserved]

(o) The following facilities are excluded from the treatment standards under §268.40, and are subject to the following constituent concentrations:

<table>
<thead>
<tr>
<th>Facility name and address</th>
<th>Waste code</th>
<th>See also</th>
<th>Regulated hazardous constituent</th>
<th>Wastewaters Concentration (mg/l)</th>
<th>Wastewaters Notes</th>
<th>Nonwastewaters Concentration (mg/kg)</th>
<th>Nonwastewaters Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craftsman Plating and Tinning, Corp., Chicago, IL.</td>
<td>F006</td>
<td>Table CCWE in 268.40.</td>
<td>Cyanides (Total)</td>
<td>1.2</td>
<td>(^{(*)})</td>
<td>1800</td>
<td>(^{(*)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cyanides (Ammenable)</td>
<td>.86</td>
<td>(^{(*)})</td>
<td>30</td>
<td>(^{(*)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cadmium</td>
<td>1.6</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chromium</td>
<td>.32</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lead</td>
<td>.040</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nickel</td>
<td>.44</td>
<td>NA</td>
<td>5.0 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td>CWM Chemical Services, LLC, Model City, New York.</td>
<td>K088(^{a})</td>
<td>Standards under §268.40.</td>
<td>Arsenic</td>
<td>1.4</td>
<td>NA</td>
<td>5.0 mg/L TCLP</td>
<td>NA</td>
</tr>
<tr>
<td>Facility name and address</td>
<td>Waste code</td>
<td>See also</td>
<td>Regulated hazardous constituent</td>
<td>Wastewaters</td>
<td>Nonwastewaters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DuPont Environmental Treatment Chambers Works, Deepwater, NJ.</td>
<td>F039</td>
<td>Standards under § 268.40.</td>
<td>1,3-phenylene-diamine</td>
<td>NA</td>
<td>NA</td>
<td>CMBST; CHOXD tf BIODG or CARBN; or BIODG tf CARBN 5.0 mg/L TCLP</td>
<td></td>
</tr>
<tr>
<td>Dupont Environmental Treatment—Chambers Works Wastewater Treatment Plant, Deepwater, NJ</td>
<td>K088</td>
<td>Standards under § 268.40.</td>
<td>Arsenic</td>
<td>1.4</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>EnergySolutions LLC, Clive, UT (14).</td>
<td></td>
<td>P- and U-listed hazardous waste requiring CMBST Standards under 268.40.</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>CMBST or VTD</td>
<td></td>
</tr>
<tr>
<td>Guardian Industries Jefferson Hills, PA (6), (11), and (12).</td>
<td>D010 Standards under 268.40.</td>
<td>Selenium</td>
<td>NA</td>
<td>NA</td>
<td>11 mg/L TCLP</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Owens Brockway Glass Container Company, Vernon CA (6, 7).</td>
<td>D010 Standards under § 268.40.</td>
<td>Selenium</td>
<td>NA</td>
<td>NA</td>
<td>51 mg/L TCLP</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Northwestern Plating Works, Inc., Chicago, IL.</td>
<td>F006 Table CCWE in 268.40.</td>
<td>Cyanides (Total).</td>
<td>1.2 (2 and 3)</td>
<td>970 (4)</td>
<td>30 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Gobain Containers, El Monte, CA (6, 7).</td>
<td>D010 Standards under § 268.40.</td>
<td>Selenium</td>
<td>NA</td>
<td>NA</td>
<td>25 mg/L TCLP</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>U.S. Ecology Idaho, incorporated, Grandview, Idaho.</td>
<td>K088 10 Standards under § 268.40.</td>
<td>Arsenic</td>
<td>1.4</td>
<td>NA</td>
<td>5.0 mg/L TCLP</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

(1)—A facility may certify compliance with these treatment standards according to provisions in 40 CFR 268.7.
(2)—Cyanide Wastewater Standards for F006 are based on analysis of composite samples.
(3)—These facilities must comply with 0.86 mg/l for amenable cyanides in the wastewater exiting the alkaline chlorination system. These facilities must also comply with 40 CFR § 268.7.a.4 for appropriate monitoring frequency consistent with the facilities’ waste analysis plan.
(4)—Cyanide nonwastewaters are analyzed using SW–846 Method 9010C or 9012B, as incorporated by reference in § 260.11 of this chapter, sample size 10 grams, distillation time, 1 hour and 15 minutes.
(5)—Alternative D010 selenium standard only applies to dry scrubber solid from glass manufacturing wastes.
(6)—Alternative D010 selenium standard only applies to electrostatic precipitator dust generated during glass manufacturing operations.
(7)—D010 wastes generated by these two facilities may be treated by Chemical Waste Management, Inc. at their Kettleman Hills facility in Kettleman City, California.
(8)—Dupont Environmental Treatment-Chambers Works must dispose of this waste in their on-site Subtitle C hazardous waste landfill.
(9)—This treatment standard applies only to K088-derived bag house dust, incinerator ash, and filtercake at this facility.
(10)—This treatment standard applies only to K088-derived air emission control dust generated by this facility.
(11)—D010 wastes generated by this facility may be treated by Heritage Environmental Services, LLC at their RCRA permitted treatment facility in Indianapolis, Indiana or by Chemical Waste Management, Chemical Services Inc. at their RCRA permitted treatment facility in New York.
(12)—D010 waste generated by this facility may be treated by Chemical Waste Management, Chemical Services, LLC. at their treatment facility in Model City, New York.
(13)—This treatment standard applies to 1,3-PDA in biosludge from treatment of F039.
(14)—This site-specific treatment variance applies only to solid treatment residue resulting from the vacuum thermal desorption (VTD) of P- and U-listed hazardous waste containing radioactive contamination (“mixed waste”) at the EnergySolutions’ LLC facility in Clive, Utah that otherwise requires CMBST as the LDR treatment standard. Once the P- and U-listed mixed waste are treated using VTD, the solid treatment residue can be land disposed at EnergySolutions’ onsite RCRA permitted mixed waste landfill without further treatment. This treatment variance is conditioned on EnergySolutions complying with a Waste Family Demonstration Testing Plan specifically addressing the treatment of these P- and U-listed wastes, with this plan being implemented through a RCRA Part B permit modification for the VTD unit.

NOTE: NA means Not Applicable.
§ 268.45 Treatment standards for hazardous debris.

(a) Treatment standards. Hazardous debris must be treated prior to land disposal as follows unless EPA determines under §261.3(f)(2) of this chapter that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subpart for the waste contaminating the debris:

(1) General. Hazardous debris must be treated for each “contaminant subject to treatment” defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section.

(2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section.

(3) Mixtures of debris types. The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraphs (a)(1), (a)(2), and (a)(3) of this section must be treated using one or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(b) Contaminants subject to treatment. Hazardous debris must be treated for each “contaminant subject to treatment.” The contaminants subject to treatment must be determined as follows:

(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by §261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under §268.40.

(3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under subpart C, part 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.

(d) Treatment residuals—(1) General requirements. Except as provided by paragraphs (d)(2) and (d)(4) of this section:

(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by subpart D of this part for the waste contaminating the debris.

(2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or
reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of subpart D of this part.

(3) cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in “Treatment Standards for Hazardous Wastes” at §268.40.

(4) ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D001: ignitable liquids.

(5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.

**Table 1—Alternative Treatment Standards for Hazardous Debris**

<table>
<thead>
<tr>
<th>Technology description</th>
<th>Performance and/or design and operating standard</th>
<th>Contaminant restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Extraction Technologies:</td>
<td>Glass, Metal, Plastic, Rubber: Treatment to a clean debris surface.</td>
<td>All Debris: None.</td>
</tr>
<tr>
<td>1. Physical Extraction</td>
<td>Brick, Cloth, Concrete, Paper, Pave-</td>
<td>Brick, Cloth, Concrete, Paper, Pave-</td>
</tr>
<tr>
<td>a. Abrasive Blasting: Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).</td>
<td>ment, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface.</td>
<td>ment, Rock, Wood: Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a dioxin-listed waste, an “Equivalent Technology” approval under §268.42(b) must be obtained.</td>
</tr>
<tr>
<td>b. Scarification, Grinding, and Planing: Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.</td>
<td>Same as above</td>
<td>Same as above.</td>
</tr>
<tr>
<td>c. Spalling: Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.</td>
<td>Same as above</td>
<td>Same as above.</td>
</tr>
<tr>
<td>d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed.</td>
<td>Same as above</td>
<td>Same as above.</td>
</tr>
<tr>
<td>e. High Pressure Steam and Water Sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.</td>
<td>All Debris: Treatment to a clean debris surface; Brick, Cloth, Concrete, Paper, Pave-</td>
<td>Brick, Cloth, Concrete, Paper, Pave-</td>
</tr>
<tr>
<td>a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.</td>
<td>ment, Rock, Wood: Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit, except that this thickness limit may be waived under an “Equivalent Technology” approval under §268.42(b)); debris surfaces must be in contact with water solution for at least 15 minutes.</td>
<td>ment, Rock, Wood: Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a dioxin-listed waste, an “Equivalent Technology” approval under §268.42(b) must be obtained.</td>
</tr>
</tbody>
</table>
TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS—Continued

<table>
<thead>
<tr>
<th>Technology description</th>
<th>Performance and/or design and operating standard</th>
<th>Contaminant restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface pores by applying a non-aqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time.¹²</td>
<td>Same as above</td>
<td>Brick, Cloth, Concrete, Paper, Paving, Rock, Wood: Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.</td>
</tr>
<tr>
<td>c. Vapor Phase Solvent Extraction: Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor.¹²</td>
<td>Same as above, except that brick, cloth, concrete, paper, pavement, rock, and wood surfaces must be in contact with the organic vapor for at least 60 minutes.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>3. Thermal Extraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, and/or carbon in a smelting, melting, or refining furnace to separate metals from debris.</td>
<td>For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means,¹⁰ and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. All Debris: Obtain an “Equivalent Technology” approval under §268.42(b).¹⁰</td>
<td>Debris contaminated with a dioxin-listed waste: Obtain an “Equivalent Technology” approval under §268.42(b).¹⁰</td>
</tr>
<tr>
<td>b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas.⁷</td>
<td>Debris contaminated with a dioxin-listed waste: Obtain an “Equivalent Technology” approval under §268.42(b).¹⁰</td>
<td>All Debris: Metals other than mercury.</td>
</tr>
<tr>
<td>4. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas.⁷</td>
<td></td>
<td>All Debris: Metal contaminants.</td>
</tr>
<tr>
<td>B. Destruction Technologies:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.</td>
<td>All Debris: Obtain an “Equivalent Technology” approval under §268.42(b).¹⁰</td>
<td>All Debris: Metal contaminants.</td>
</tr>
</tbody>
</table>
### § 268.45

**TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS**

<table>
<thead>
<tr>
<th>Technology description</th>
<th>Performance and/or design and operating standard</th>
<th>Contaminant restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Chemical Destruction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents—(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency. Chemical oxidation specifically includes what is referred to as alkaline chlorination.</td>
<td>All Debris: Obtain an “Equivalent Technology” approval under § 268.42(b); treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</td>
<td>All Debris: Metal contaminants.</td>
</tr>
<tr>
<td>- Brick, Cloth, Concrete, Paper, Pave-ment, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), except that this thickness limit may be waived under the “Equivalent Technology” approval</td>
<td>Same as above.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>b. Chemical Reduction: Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency.</td>
<td>Treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</td>
<td>Brick, Concrete, Glass, Metal, Pave-ment, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification.</td>
</tr>
<tr>
<td>- Debris contaminated with a dioxin-listed waste.</td>
<td>Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</td>
<td>None.</td>
</tr>
<tr>
<td>c. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or to reduce the leachability of the hazardous constituents.</td>
<td>Leachability of the hazardous contaminants must be reduced.</td>
<td>None.</td>
</tr>
</tbody>
</table>

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### § 268.48 Alternative treatment standards based on HTMR.

For the treatment standards previously found in this section, refer to § 268.46.

[59 FR 48163, Sept. 19, 1994]

### § 268.48 Universal treatment standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in §268.2(1), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

---

#### TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS

<table>
<thead>
<tr>
<th>Technology description</th>
<th>Performance and/or design and operating standard</th>
<th>Contaminant restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant.</td>
<td>Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</td>
<td>None.</td>
</tr>
</tbody>
</table>

---

1. Hazardous debris must be treated by either these standards or the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types. If the debris is converted into treatment residue as a result of the treatment process, Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

2. Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Subtitle C regulation).

3. Clean debris surface means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

4. Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminant. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

5. If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

6. Dioxin-listed wastes are EPA Hazardous Waste numbers FO20, FO21, FO22, FO23, FO26, and FO27.

7. Thermal desorption is distinguished from Thermal Destruction in that the primary purpose of Thermal Desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

8. The demonstration “Equivalent Technology” under §268.42(b) must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

9. Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a “clean debris surface” as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

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### Universal Treatment Standards

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Regulated constituent common name</th>
<th>CAS number</th>
<th>Wastewater standard Concentration in mg/l</th>
<th>Nonwastewater standard Concentration in mg/kg unless noted as &quot;mg/l TCLP&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organic Constituents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208–96–8</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83–32–9</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Acetone</td>
<td>67–64–1</td>
<td>0.28</td>
<td>160</td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>75–05–8</td>
<td>5.6</td>
<td>38</td>
</tr>
<tr>
<td>Acetophenone</td>
<td>96–86–2</td>
<td>0.010</td>
<td>9.7</td>
</tr>
<tr>
<td>2-Acetylaminothiazole</td>
<td>53–96–3</td>
<td>0.059</td>
<td>140</td>
</tr>
<tr>
<td>Acrolein</td>
<td>107–02–8</td>
<td>0.29</td>
<td>NA</td>
</tr>
<tr>
<td>Acrylamide</td>
<td>79–06–1</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>107–13–1</td>
<td>0.24</td>
<td>84</td>
</tr>
<tr>
<td>Aldrin</td>
<td>309–00–2</td>
<td>0.021</td>
<td>0.066</td>
</tr>
<tr>
<td>4-Aminobiphenyl</td>
<td>92–67–1</td>
<td>0.13</td>
<td>NA</td>
</tr>
<tr>
<td>Aniline</td>
<td>62–53–3</td>
<td>0.81</td>
<td>14</td>
</tr>
<tr>
<td>o-Anisidine (2-methoxyaniline)</td>
<td>90–04–0</td>
<td>0.010</td>
<td>0.66</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120–12–7</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Aramite</td>
<td>140–57–8</td>
<td>0.36</td>
<td>NA</td>
</tr>
<tr>
<td>alpha-BHC</td>
<td>319–84–6</td>
<td>0.00014</td>
<td>0.066</td>
</tr>
<tr>
<td>beta-BHC</td>
<td>319–85–7</td>
<td>0.00014</td>
<td>0.066</td>
</tr>
<tr>
<td>delta-BHC</td>
<td>319–86–8</td>
<td>0.023</td>
<td>0.066</td>
</tr>
<tr>
<td>gamma-BHC</td>
<td>58–89–9</td>
<td>0.0017</td>
<td>0.066</td>
</tr>
<tr>
<td>Benzene</td>
<td>71–43–2</td>
<td>0.14</td>
<td>10</td>
</tr>
<tr>
<td>Benz(a)anthracene</td>
<td>56–55–3</td>
<td>0.059</td>
<td>3.4</td>
</tr>
<tr>
<td>Benzal chloride</td>
<td>98–87–3</td>
<td>0.055</td>
<td>6.0</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</td>
<td>205–99–2</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</td>
<td>207–08–9</td>
<td>0.11</td>
<td>6.8</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191–24–2</td>
<td>0.0055</td>
<td>1.8</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50–32–8</td>
<td>0.061</td>
<td>3.4</td>
</tr>
<tr>
<td>Bromochloromethane</td>
<td>75–27–4</td>
<td>0.35</td>
<td>15</td>
</tr>
<tr>
<td>Bromomethane/Methyl bromide</td>
<td>74–83–9</td>
<td>0.11</td>
<td>15</td>
</tr>
<tr>
<td>4-Bromophenyl phenyl ether</td>
<td>101–55–3</td>
<td>0.055</td>
<td>15</td>
</tr>
<tr>
<td>n-Butyl alcohol</td>
<td>71–36–3</td>
<td>5.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Butyl benzyl phthalate</td>
<td>85–68–7</td>
<td>0.017</td>
<td>28</td>
</tr>
<tr>
<td>2-sec-Butyl-4,6-dinitrophenol/Dinoseb</td>
<td>88–85–7</td>
<td>0.066</td>
<td>2.5</td>
</tr>
<tr>
<td>Carbon disulfide</td>
<td>75–15–0</td>
<td>3.8</td>
<td>4.8 mg/l TCLP</td>
</tr>
</tbody>
</table>
### Universal Treatment Standards—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Regulated constituent common name</th>
<th>CAS number</th>
<th>Wastewater standard</th>
<th>Nonwastewater standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Concentration in mg/l</td>
<td>Concentration in mg/kg unless noted as &quot;mg/l TCLP&quot;</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>56–23–5</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chlorodane (alpha and gamma isomers)</td>
<td>57–74–9</td>
<td>0.0033</td>
<td>0.26</td>
</tr>
<tr>
<td>p-Chloroaniline</td>
<td>106–47–8</td>
<td>0.46</td>
<td>16</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>108–90–7</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Chlorobenzilate</td>
<td>510–15–6</td>
<td>0.10</td>
<td>NA</td>
</tr>
<tr>
<td>2-Chloro-1,3-butadiene</td>
<td>126–99–8</td>
<td>0.057</td>
<td>0.28</td>
</tr>
<tr>
<td>Chlorodibromomethane</td>
<td>124–48–1</td>
<td>0.057</td>
<td>15</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>75–00–3</td>
<td>0.27</td>
<td>6.0</td>
</tr>
<tr>
<td>bis(2-Chloroethoxy)methane</td>
<td>111–91–1</td>
<td>0.036</td>
<td>7.2</td>
</tr>
<tr>
<td>bis(2-Chloroethyl)ether</td>
<td>111–44–4</td>
<td>0.033</td>
<td>6.0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67–66–3</td>
<td>0.046</td>
<td>6.0</td>
</tr>
<tr>
<td>bis(2-Chloroisopropyl)ether</td>
<td>39638–32–9</td>
<td>0.055</td>
<td>7.2</td>
</tr>
<tr>
<td>p-Chloro-m-cresol</td>
<td>59–50–7</td>
<td>0.018</td>
<td>14</td>
</tr>
<tr>
<td>2-Chloroethyl vinyl ether</td>
<td>110–75–8</td>
<td>0.062</td>
<td>NA</td>
</tr>
<tr>
<td>Chloromethane/Methyl chloride</td>
<td>74–87–3</td>
<td>0.19</td>
<td>30</td>
</tr>
<tr>
<td>2-Chloronaphthalene</td>
<td>91–58–7</td>
<td>0.055</td>
<td>5.6</td>
</tr>
<tr>
<td>2-Chlorophenol</td>
<td>95–57–8</td>
<td>0.044</td>
<td>5.7</td>
</tr>
<tr>
<td>3-Chloropropylene</td>
<td>107–05–1</td>
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<td>Chrysene</td>
<td>218–01–9</td>
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<td>p-Cresidine</td>
<td>120–71–8</td>
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<td>0.66</td>
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<tr>
<td>o-Cresol</td>
<td>95–48–7</td>
<td>0.11</td>
<td>5.6</td>
</tr>
<tr>
<td>m-Cresol (difficult to distinguish from p-cresol)</td>
<td>108–39–4</td>
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<tr>
<td>p-Cresol (difficult to distinguish from m-cresol)</td>
<td>106–44–5</td>
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<tr>
<td>Cyclohexanone</td>
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<tr>
<td>o,p′-DDD</td>
<td>53–19–0</td>
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<td>0.087</td>
</tr>
<tr>
<td>p,p′-DDD</td>
<td>72–54–8</td>
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<td>0.087</td>
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<td>o,p′-DDE</td>
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<td>p,p′-DDE</td>
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<td>p,p′-DDT</td>
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<td>1,2-Dibromoethane/Ethylene dibromide</td>
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<td>p-Dichlorobenzene</td>
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<td>Dichlorodifluoromethane</td>
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<td>trans-1,2-Dichloroethylene</td>
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<td>2,6-Dichlorophenol</td>
<td>87–85–0</td>
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<td>2,4-Dichlorophenoxyacetic acid/2,4-D</td>
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<td>cis-1,3-Dichloropropylene</td>
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<td>Dimethyl phthalate</td>
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<td>Di-n-butyl phthalate</td>
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<td>4,6-Dinitro-o-cresol</td>
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<td>2,4-Dinitrophenol</td>
<td>51–28–5</td>
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<td>2,4-Dinitrotoluene</td>
<td>121–14–2</td>
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<td>2,6-Dinitrotoluene</td>
<td>606–20–2</td>
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<td>Di-n-octyl phthalate</td>
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<td>Di-n-propyl nitrosamine</td>
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<td>1,4-Dioxane</td>
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| Regulated constituent common name | CAS number | Wastewater standard Concentration in mg/l | Nonwastewater standard Concentration in mg/kg unless noted as "mg/l TCLP"
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<td>Endosulfan II</td>
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<td>Endosulfan sulfate</td>
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<td>Endrin</td>
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<td>Ethyl benzene</td>
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<td>Ethyl cyanide/Propanenitrile</td>
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<td>Ethyl ether</td>
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<td>bis(2-Ethylhexyl)giphthalate</td>
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<td>Ethylene oxide</td>
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<td>Fluoranthene</td>
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<td>Fluorene</td>
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<td>Heptachlor</td>
<td>76–44–8</td>
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<td>1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)</td>
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<td>1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)</td>
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<td>1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)</td>
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<td>Heptachlor epoxide</td>
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<td>Hexachlorobutadiene</td>
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<td>HxCDFs (All Hexachlorodibenzofurans)</td>
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<td>Hexachloroethane</td>
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<td>Indeno(1,2,3-c,d) pyrene</td>
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<td>Isodomethe</td>
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<td>Isodrin</td>
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<td>Isosafrole</td>
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<td>Kepone</td>
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<td>Methyl methacrylate</td>
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## Universal Treatment Standards—Continued

(Note: NA means not applicable)

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<th>Nonwastewater standard Concentration(^2) in mg/kg unless noted as &quot;mg/l TCLP&quot;</th>
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<td>Pentachlorophenol</td>
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<tr>
<td>Phthalic acid</td>
<td>100–21–0</td>
<td>0.055</td>
<td>28</td>
</tr>
<tr>
<td>Phthalic anhydride</td>
<td>85–44–9</td>
<td>0.055</td>
<td>28</td>
</tr>
<tr>
<td>Pronamide</td>
<td>23950–58–5</td>
<td>0.093</td>
<td>1.5</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129–00–0</td>
<td>0.067</td>
<td>8.2</td>
</tr>
<tr>
<td>Pyridine</td>
<td>110–86–1</td>
<td>0.014</td>
<td>16</td>
</tr>
<tr>
<td>Safrole</td>
<td>94–59–7</td>
<td>0.081</td>
<td>22</td>
</tr>
<tr>
<td>Silvex/2,4,5-TP</td>
<td>93–72–1</td>
<td>0.72</td>
<td>7.9</td>
</tr>
<tr>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>95–94–3</td>
<td>0.055</td>
<td>14</td>
</tr>
<tr>
<td>TCDDs (All Tetrachlorodibenzo-p-dioxins)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>TCDFs (All Tetrachlorodibenzofurans)</td>
<td>NA</td>
<td>0.000063</td>
<td>0.001</td>
</tr>
<tr>
<td>1,1,1,2-Tetrachloroethane</td>
<td>630–20–6</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>1,1,2,2'-Tetrachloroethane</td>
<td>79–34–5</td>
<td>0.057</td>
<td>6.0</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>127–18–4</td>
<td>0.056</td>
<td>6.0</td>
</tr>
<tr>
<td>2,3,4,6'-Tetrachlorophenol</td>
<td>58–90–2</td>
<td>0.030</td>
<td>7.4</td>
</tr>
<tr>
<td>Toluene</td>
<td>108–88–3</td>
<td>0.080</td>
<td>10</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>8001–35–2</td>
<td>0.0095</td>
<td>2.6</td>
</tr>
<tr>
<td>Tribromomethane/Bromoform</td>
<td>75–25–2</td>
<td>0.63</td>
<td>15</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>120–82–1</td>
<td>0.055</td>
<td>19</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>71–55–6</td>
<td>0.054</td>
<td>6.0</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>79–00–5</td>
<td>0.054</td>
<td>6.0</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>79–01–6</td>
<td>0.054</td>
<td>6.0</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>75–69–4</td>
<td>0.020</td>
<td>30</td>
</tr>
<tr>
<td>2,4,5-Trichlorophenol</td>
<td>95–95–4</td>
<td>0.18</td>
<td>7.4</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>88–06–2</td>
<td>0.035</td>
<td>7.4</td>
</tr>
<tr>
<td>2,4,5-Trichlorophenoxyacetic acid/2,4,5-T</td>
<td>93–76–5</td>
<td>0.72</td>
<td>7.9</td>
</tr>
<tr>
<td>1,2,3-Trichloropropane</td>
<td>96–18–4</td>
<td>0.85</td>
<td>30</td>
</tr>
<tr>
<td>1,1,2-Trichloro-1,2,2-trifluoroethane</td>
<td>76–13–1</td>
<td>0.057</td>
<td>30</td>
</tr>
</tbody>
</table>
### Universal Treatment Standards—Continued

[Note: NA means not applicable]

<table>
<thead>
<tr>
<th>Regulated constituent</th>
<th>CAS number</th>
<th>Wastewater standard</th>
<th>Nonwastewater standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Concentration in mg/l</td>
<td>Concentration in mg/kg unless noted as &quot;mg/l TCLP&quot;</td>
</tr>
</tbody>
</table>

#### Regulated constituents

<table>
<thead>
<tr>
<th>Common name</th>
<th>CAS number</th>
<th>Wastewater standard</th>
<th>Nonwastewater standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>tris-(2,3-Dibromopropyl) phosphate</td>
<td>126–72–7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>75–01–4</td>
<td>0.27</td>
<td>6.0</td>
</tr>
<tr>
<td>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</td>
<td>1330–20–7</td>
<td>0.32</td>
<td>30</td>
</tr>
</tbody>
</table>

#### Inorganic Constituents

<table>
<thead>
<tr>
<th>Common name</th>
<th>CAS number</th>
<th>Wastewater standard</th>
<th>Nonwastewater standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>7440–36–0</td>
<td>1.9</td>
<td>1.15 mg/l TCLP</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440–38–2</td>
<td>1.4</td>
<td>5.0 mg/l TCLP</td>
</tr>
<tr>
<td>Barium</td>
<td>7440–39–3</td>
<td>1.2</td>
<td>21 mg/l TCLP</td>
</tr>
<tr>
<td>Beryllium</td>
<td>7440–41–7</td>
<td>0.82</td>
<td>1.22 mg/l TCLP</td>
</tr>
<tr>
<td>Cadmium</td>
<td>7440–43–9</td>
<td>0.69</td>
<td>0.11 mg/l TCLP</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>7440–47–3</td>
<td>2.77</td>
<td>0.60 mg/l TCLP</td>
</tr>
<tr>
<td>Cyanides (Total)</td>
<td>57–12–5</td>
<td>1.2</td>
<td>590</td>
</tr>
<tr>
<td>Cyanides (Amenable)</td>
<td>57–12–5</td>
<td>0.86</td>
<td>30</td>
</tr>
<tr>
<td>Fluoride</td>
<td>16984–48–8</td>
<td>35</td>
<td>NA</td>
</tr>
<tr>
<td>Lead</td>
<td>7439–92–1</td>
<td>0.69</td>
<td>0.75 mg/l TCLP</td>
</tr>
<tr>
<td>Mercury—Nonwastewater from Retort</td>
<td>7439–97–6</td>
<td>NA</td>
<td>0.20 mg/l TCLP</td>
</tr>
<tr>
<td>Mercury—All Others</td>
<td>7439–97–6</td>
<td>0.15</td>
<td>0.025 mg/l TCLP</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440–02–0</td>
<td>3.98</td>
<td>11 mg/l TCLP</td>
</tr>
<tr>
<td>Selenium</td>
<td>7782–49–2</td>
<td>0.82</td>
<td>5.7 mg/l TCLP</td>
</tr>
<tr>
<td>Silver</td>
<td>7440–32–4</td>
<td>0.43</td>
<td>0.14 mg/l TCLP</td>
</tr>
<tr>
<td>Sulfide</td>
<td>18496–25–8</td>
<td>14</td>
<td>NA</td>
</tr>
<tr>
<td>Thallium</td>
<td>7440–28–0</td>
<td>1.4</td>
<td>0.20 mg/l TCLP</td>
</tr>
<tr>
<td>Vanadium</td>
<td>7440–62–2</td>
<td>4.3</td>
<td>1.6 mg/l TCLP</td>
</tr>
<tr>
<td>Zinc</td>
<td>7440–66–6</td>
<td>2.61</td>
<td>4.3 mg/l TCLP</td>
</tr>
</tbody>
</table>

### Footnotes to Table UTS

1. CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

2. Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

3. Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.


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FOOTNOTES TO TABLE UTS—Continued

4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

5 These constituents are not “underlying hazardous constituents” in characteristic wastes, according to the definition at §268.2(i).

6 [Reserved]

7 This constituent is not an underlying hazardous constituent as defined at §268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004–D011 only.

§ 268.49 Alternative LDR treatment standards for contaminated soil.

(a) Applicability. You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

<table>
<thead>
<tr>
<th>If LDRs</th>
<th>And if LDRs</th>
<th>And if</th>
<th>Then you</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied to the listed waste when it contaminated the soil*.</td>
<td>Apply to the listed waste now.</td>
<td>The soil is determined to contain the listed waste when the soil is first generated.</td>
<td>Must comply with LDRs.</td>
</tr>
<tr>
<td>Didn’t apply to the listed waste when it contaminated the soil*.</td>
<td>Apply to the listed waste now.</td>
<td>Needn’t comply with LDRs.</td>
<td></td>
</tr>
<tr>
<td>Didn’t apply to the listed waste when it contaminated the soil*.</td>
<td>Apply to the listed waste now.</td>
<td>The soil is determined not to contain the listed waste when the soil is first generated.</td>
<td>Needn’t comply with LDRs.</td>
</tr>
<tr>
<td>Didn’t apply to the listed waste when it contaminated the soil*.</td>
<td>Don’t apply to the listed waste now.</td>
<td>Needn’t comply with LDRs.</td>
<td></td>
</tr>
</tbody>
</table>

*For dates of LDR applicability, see 40 CFR Part 268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

(b) Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to the applicable treatment standards specified in paragraph (c) of this section or according to the Universal Treatment Standards specified in 40 CFR 268.48 applicable to the contaminating listed hazardous waste and/or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in paragraph (c) of this section and the Universal Treatment Standards may be modified through a treatment variance approved in accordance with 40 CFR 268.44.

(c) Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to all the standards specified in this paragraph or according to the Universal Treatment Standards specified in 40 CFR 268.48.
(1) All soils. Prior to land disposal, all constituents subject to treatment must be treated as follows:
(A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in total constituent concentrations, except as provided by paragraph (c)(1)(C) of this section.
(B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by paragraph (c)(1)(C) of this section.
(C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. Universal Treatment Standards are identified in 40 CFR 268.48 Table UTS.

(2) Soils that exhibit the characteristic of ignitability, corrosivity or reactivity. In addition to the treatment required by paragraph (c)(1) of this section, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated to eliminate these characteristics.

(3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of paragraphs (c)(1) and (2) of this section, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:
(A) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in paragraphs (c)(1) and (2) of this section; or,
(B) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in §268.42 for the waste contained in the soil.

(4) Constituents subject to treatment. When applying the soil treatment standards in paragraph (c) of this section, constituents subject to treatment are any constituents listed in §268.48 Table UTS—Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.

(e) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be managed as follows:
(1) Soil residuals are subject to the treatment standards of this section;
(2) Non-soil residuals are subject to:
(A) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards applicable to the listed hazardous waste; and
(B) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

§268.50 Prohibitions on Storage of Restricted Wastes

(a) Except as provided in this section, the storage of hazardous wastes restricted from land disposal under subpart C of this part of RCRA section 3004 is prohibited, unless the following conditions are met:
(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in §262.34 and parts 264 and 265 of this chapter.
(2) An owner/operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:
   (i) Each container is clearly marked to identify its contents and the date each period of accumulation begins;
   (ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator must comply with the operating record requirements specified in §264.73 or §265.73.

(3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.

(b) An owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) An owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner/operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) If a generator’s waste is exempt from a prohibition on the type of land disposal utilized for the waste (for example, because of an approved case-by-case extension under §268.5, an approved §268.6 petition, or a national capacity variance under subpart C), the prohibition in paragraph (a) of this section does not apply during the period of such exemption.

(e) The prohibition in paragraph (a) of this section does not apply to hazardous wastes that meet the treatment standards specified under §§268.41, 268.42, or 268.43 or the treatment standards specified under the variance in §268.44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in §268.32 or RCRA section 3004.

(f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required by this part within one year of the date when such wastes are first placed into storage. The provisions of paragraph (c) of this section do not apply to such PCB wastes prohibited under §268.32 of this part.

(g) The prohibition and requirements in this section do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to §264.554 of this chapter.


APPENDIXES I–II TO PART 268
[Reserved]

APPENDIX III TO PART 268—LIST OF HALOGENATED ORGANIC COMPOUNDS REGULATED UNDER §268.32

In determining the concentration of HOCs in a hazardous waste for purposes of the §268.32 land disposal prohibition, EPA has defined the HOCs that must be included in a calculation as any compounds having a carbon-halogen bond which are listed in this Appendix (see §268.2). Appendix III to Part 268 consists of the following compounds:

I. VOLATILES

1. Bromodichloromethane
2. Bromomethane
3. Carbon Tetrachloride
4. Chlorobenzene
5. 2-Chloro-1,3-butadiene
6. Chlorodibromomethane
7. Chloroethane
8. 2-Chloroethyl vinyl ether
9. Chloroform
10. Chloromethane
11. 3-Chloropropene
12. 1,2-Dibromo-3-chloropropane
13. 1,2-Dibromomethane
14. Dibromomethane
15. Tran-1,4-Dichloro-2—butene
16. Dichlorodifluoromethane
17. 1,1-Dichloroethane
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| 18. 1,2-Dichloroethane       | 12. Endosulfan II          |
| 19. 1,1-Dichloroethene       | 13. Endrin                 |
| 20. Trans-1,2-Dichloroethene | 14. Endrin aldehyde        |
| 21. 1,2-Dichloropropane      | 15. Heptachlor             |
| 22. Trans-1,3-Dichloropropene| 16. Heptachlor epoxide     |
| 23. cis-1,3-Dichloropropene  | 17. Isodrin                |
| 24. Iodomethane              | 18. Kepone                 |
| 25. Methylene chloride       | 19. Methoxychlor           |
| 26. 1,1,1,2-Tetrachloroethene| 20. Toxaphene              |
| 27. 1,1,2,2-Tetrachloroethane|                          |
| 28. Tetrachloroethene        |                          |
| 29. Tribromomethane          |                          |
| 30. 1,1,1-Trichloroethane    |                          |
| 31. 1,1,2-Trichloroethane    |                          |
| 32. Trichloroethene          |                          |
| 33. Trichloromonofluoromethane|                        |
| 34. 1,2,3-Trichloropropene   |                          |
| 35. Vinyl Chloride           |                          |

#### II. Semivolatiles

1. Bis(2-chloroethoxy)ethane
2. Bis(2-chloroethyl)ether
3. Bis(2-chloroisopropyl)ether
4. p-Chloroaniline
5. Chlorobenzilate
6. p-Chloro-m-cresol
7. 2-Chloronaphthalene
8. 2-Chlorophenol
9. 3-Chloropropionitrile
10. m-Dichlorobenzene
11. o-Dichlorobenzene
12. p-Dichlorobenzene
13. 3,3′-Dichlorobenzidine
14. 2,4,4-Trichlorophenol
15. 2,6-Dichlorophenol
16. Hexachlorobenzene
17. Hexachlorobutadiene
18. Hexachlorocyclopentadiene
19. Hexachloroethane
20. Hexachloropropene
21. Hexachloropropene
22. 4,4′-Methylenedioxy-2-chloroaniline
23. Pentachlorobenzene
24. Pentachloroethane
25. Pentachlorodibenzofuran
26. Pentachlorobenzene
27. Pronamide
28. 1,2,4,5-Tetrachlorobenzene
29. 2,3,4,6-Tetrachlorophenol
30. 1,2,4-Trichlorobenzene
31. 2,4,5-Trichlorophenol
32. 2,4,6-Trichlorophenol
33. Tris(2,3-dibromopropyl)phosphate

#### III. Organochlorine Pesticides

1. Aldrin
2. alpha-BHC
3. beta-BHC
4. delta-BHC
5. gamma-BHC
6. Chlorodane
7. DDD
8. DDE
9. DDT
10. Dieldrin
11. Endosulfan I

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#### IV. Phenoxyacetic Acid Herbicides

1. 2,4,5-T
2. Silvex
3. 2,4,5-T

#### V. PCBs

1. Aroclor 1016
2. Aroclor 1221
3. Aroclor 1232
4. Aroclor 1242
5. Aroclor 1246
6. Aroclor 1254
7. Aroclor 1260
8. PCBs not otherwise specified

#### VI. Dioxins and Furans

1. Hexachlorodibenzo-p-dioxins
2. Hexachlorodibenzofuran
3. Pentachlorodibenzofuran-p-dioxins
4. Pentachlorodibenzofuran
5. Tetrachlorodibenzofuran-p-dioxins
6. Tetrachlorodibenzofuran
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

[65 FR 81380, Dec. 26, 2000]

**APPENDIX IV TO PART 268—WASTES EXCLUDED FROM LAB PACKS UNDER THE ALTERNATIVE TREATMENT STANDARDS OF §268.42(c)**

Hazardous waste with the following EPA Hazardous Waste Codes may not be placed in lab packs under the alternative lab pack treatment standards of §268.42(c): D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, U131.

[59 FR 48107 Sept. 19, 1994]

**APPENDIX V TO PART 268 [RESERVED]**

**APPENDIX VI TO PART 268—RECOMMENDED TECHNOLOGIES TO ACHIEVE DEACTIVATION OF CHARACTERISTICS IN SECTION 268.42**

The treatment standard for many characteristic wastes is stated in the §268.40 Table of Treatment Standards as “Deactivation and meet UTS.” EPA has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and
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that also contain underlying hazardous constituents (see §268.2(i)) must be treated not only by a “deactivating” technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the five letter technology codes established in 40 CFR 268.42 Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, and/or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

<table>
<thead>
<tr>
<th>Waste code/subcategory</th>
<th>Nonwastewaters</th>
<th>Wastewaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>D001 Ignitable Liquids based on 261.21(a)(1)—Low TOC Nonwastewater Subcategory (containing 1% to &lt;10% TOC).</td>
<td>RORGS INCIN WETOX CHOXD BIODG</td>
<td>n.a.</td>
</tr>
<tr>
<td>D001 Ignitable Liquids based on 261.21(a)(1)—Ignitable Wastewater Subcategory (containing &lt;1% TOC).</td>
<td>RORGS INCIN WETOX CHOXD BIODG</td>
<td>n.a.</td>
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<tr>
<td>D001 Compressed Gases based on 261.21(A)(3)</td>
<td>RCGAS INCIN FSUBS ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED).</td>
<td>n.a.</td>
</tr>
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<td>D001 Ignitable Reactives based on 261.21(a)(2)</td>
<td>WTRRX CHOXD CHRED STABL INCIN</td>
<td>n.a.</td>
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<td>D001 Ignitable Oxidizers based on 261.21(a)(4)</td>
<td>CHRED INCIN</td>
<td>CHRED INCIN</td>
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<td>D002 Acid Subcategory based on 261.22(a)(1) with pH less than or equal to 2</td>
<td>NEUTR INCIN</td>
<td>NEUTR INCIN</td>
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<td>D002 Alkaline Subcategory based on 261.22(a)(1) with pH greater than or equal to 12.5.</td>
<td>INCIN</td>
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<td>D002 Other Corrosives based on 261.22(a)(2)</td>
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<td>CHOXD CHRED INCIN</td>
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<td>D003 Water Reactives based on 261.23(a) (2), (3), and (4)</td>
<td>INCIN WTRRX CHOXD CHRED</td>
<td>n.a.</td>
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<td>D003 Reactive Sulfides based on 261.23(a)(5)</td>
<td>CHOXD CHRED INCIN STABL</td>
<td>CHOXD CHRED INCIN</td>
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<tr>
<td>D003 Explosives based on 261.23(a) (6), (7), and (8)</td>
<td>INCIN CHOXD CHRED BIODG CARBN</td>
<td>INCIN CHOXD CHRED BIODG CARBN</td>
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<td>D003 Other Reactives based on 261.23(a)(1)</td>
<td>INCIN CHOXD CHRED BIODG CARBN</td>
<td>INCIN CHOXD CHRED BIODG CARBN</td>
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<tr>
<td>K044 Wastewater treatment sludges from the manufacturing and processing of explosives.</td>
<td>CHOXD CHRED INCIN</td>
<td>CARBN</td>
</tr>
<tr>
<td>K045 Spent carbon from the treatment of wastewaters containing explosives</td>
<td>CHOXD CHRED BIODG CARBN</td>
<td>INCIN</td>
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### TABLE 1—Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRS™—Comprehensive List

<table>
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<th>Waste code/subcategory</th>
<th>Waste category</th>
<th>Effective date</th>
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<td>K047 Pink/red water from TNT operations</td>
<td>Nonwastewaters</td>
<td>CHOXD CHRED INCIN</td>
</tr>
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<td></td>
<td>Wastewaters</td>
<td>CHOXD CHRED INCIN</td>
</tr>
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Note: “n.a.” stands for “not applicable”; “fb.” stands for “followed by”.

### TABLE 1—Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRS—a—Comprehensive List—Continued

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<td>Mixed with radioactive wastes</td>
<td>Sept. 19, 1996.</td>
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<td>Sept. 19, 1996.</td>
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<td>Mixed with radioactive wastes</td>
<td>Sept. 19, 1996.</td>
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<td>Mixed with radioactive wastes</td>
<td>Sept. 19, 1996.</td>
</tr>
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<td>Mixed with radioactive wastes</td>
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</tr>
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<td>Sept. 19, 1996.</td>
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**Note:** The table continues with similar entries for other waste codes and categories, each with specific effective dates.
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### Table 1—Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRA Comprehensive List—Continued

<table>
<thead>
<tr>
<th>Waste code</th>
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282
The standards for selected reactive wastes was revised in the Phase III Final Rule (61 FR 47362, Sept. 19, 1994); the original effective date was August 8, 1990.

"The standards for selected reactive wastes was revised in the Phase III Final Rule (61 FR 15566, Apr. 8, 1996); the original effective date was August 8, 1990.

**TABLE 2—SUMMARY OF EFFECTIVE DATES OF LAND DISPOSAL RESTRICTIONS FOR CONTAMINATED SOIL AND DEBRIS (CSD)**

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<td>2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents (F001–F005) or dioxins (F020–F023 and F026–F028).</td>
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<td>3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.</td>
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<td>4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.</td>
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<tr>
<td>5. All soil and debris contaminated with Third Third wastes or, First or Second Third &quot;soft hammer&quot; wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals; as well as all inorganic solids debris contaminated with D04–D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes.</td>
<td>May 8, 1992.</td>
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<tr>
<td>U389</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U390</td>
<td>Mixed with radioactive wastes</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U390</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U391</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U391</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U392</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U392</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U393</td>
<td>Mixed with radioactive wastes</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U396</td>
<td>Mixed with radioactive wastes</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U400</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U400</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U401</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U401</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U402</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U402</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U403</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U403</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U404</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U404</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U407</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U409</td>
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<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U409</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U410</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U410</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U411</td>
<td>Mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>U411</td>
<td>All others</td>
<td>July 8, 1996.</td>
</tr>
</tbody>
</table>

---

*This table does not include mixed radioactive wastes (from the First, Second, and Third rules) which received national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.

*The standard was revised in the Third Third Final Rule (55 FR 22525, June 1, 1990).

*The standard was revised in the Third Third Emergency Rule (58 FR 23860, May 24, 1993); the original effective date was August 8, 1990.

*The standard was revised in the Phase II Final Rule (59 FR 47362, Sept. 19, 1994); the original effective date was August 8, 1990.

*The standard was revised in the Phase III Final Rule (61 FR 15566, Apr. 8, 1996); the original effective date was August 8, 1990.

---

TABLE 1—EFFECTIVE DATES OF LAND DISPOSAL RESTRICTIONS FOR CONTAMINATED SOIL AND DEBRIS (CSD)—CONTINUED
### Table 2—Summary of Effective Dates of Land Disposal Restrictions for Contaminated Soil and Debris (CSD)—Continued

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste category</th>
<th>Effective date</th>
</tr>
</thead>
<tbody>
<tr>
<td>F001–F005</td>
<td>All spent F001–F005 solvent containing less than 1 percent total F001–F005 solvent constituents.</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>D005</td>
<td>(explosives, reagents)</td>
<td>May 8, 1992.</td>
</tr>
<tr>
<td>D018</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D019</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D020</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D021</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D022</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D023</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D024</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D025</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D026</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D027</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D028</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D029</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D030</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D031</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D032</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D033</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D034</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D035</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D036</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D037</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
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<tr>
<td>D038</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D039</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D040</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D041</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D042</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>D043</td>
<td>All, including mixed with radioactive wastes</td>
<td>Apr. 8, 1998.</td>
</tr>
<tr>
<td>F007</td>
<td>All</td>
<td>June 8, 1991.</td>
</tr>
<tr>
<td>F007</td>
<td>All</td>
<td>May 12, 1999.</td>
</tr>
<tr>
<td>F034</td>
<td>All, including mixed with radioactive wastes</td>
<td>May 12, 1999.</td>
</tr>
<tr>
<td>F035</td>
<td>All, including mixed with radioactive wastes</td>
<td>May 12, 1999.</td>
</tr>
</tbody>
</table>

Note: Appendix VII is provided for the convenience of the reader.

### NATIONAL CAPACITY LDR VARIANCES FOR UIC WASTES—Continued

<table>
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<th>Waste code</th>
<th>Waste category</th>
<th>Effective date</th>
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<tbody>
<tr>
<td>F037</td>
<td>All</td>
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</tr>
<tr>
<td>F038</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>F039</td>
<td>Wastewater</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K009</td>
<td>Wastewater</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K014</td>
<td>All</td>
<td>May 8, 1992.</td>
</tr>
<tr>
<td>K016 (dilute)</td>
<td>All</td>
<td>June 8, 1991.</td>
</tr>
<tr>
<td>K049</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K050</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K051</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K052</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K062</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K071</td>
<td>All</td>
<td>May 8, 1992.</td>
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<tr>
<td>K088</td>
<td>All</td>
<td>Jan. 8, 1997.</td>
</tr>
<tr>
<td>K104</td>
<td>All</td>
<td>Aug. 8, 1990.</td>
</tr>
<tr>
<td>K107</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K108</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K109</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K110</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K111</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K112</td>
<td>All</td>
<td>Nov. 8, 1992.</td>
</tr>
<tr>
<td>K117</td>
<td>All</td>
<td>June 30, 1995.</td>
</tr>
<tr>
<td>K118</td>
<td>All</td>
<td>June 30, 1995.</td>
</tr>
<tr>
<td>K123</td>
<td>All</td>
<td>Nov. 9, 1992.</td>
</tr>
<tr>
<td>K124</td>
<td>All</td>
<td>Nov. 9, 1992.</td>
</tr>
<tr>
<td>K125</td>
<td>All</td>
<td>Nov. 9, 1992.</td>
</tr>
<tr>
<td>K126</td>
<td>All</td>
<td>Nov. 9, 1992.</td>
</tr>
<tr>
<td>K131</td>
<td>All</td>
<td>June 30, 1995.</td>
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<tr>
<td>K132</td>
<td>All</td>
<td>June 30, 1995.</td>
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<tr>
<td>K136</td>
<td>All</td>
<td>Nov. 9, 1992.</td>
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<td>K156</td>
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<tr>
<td>K157</td>
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<tr>
<td>K158</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>K159</td>
<td>All</td>
<td>July 8, 1996.</td>
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<tr>
<td>K160</td>
<td>All</td>
<td>July 8, 1996.</td>
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<tr>
<td>K161</td>
<td>All</td>
<td>July 8, 1996.</td>
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<tr>
<td>NA</td>
<td>Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/newly identified D004–D011 characteristic wastes and mineral processing wastes.</td>
<td>May 26, 2000.</td>
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<tr>
<td>P127</td>
<td>All</td>
<td>July 8, 1996.</td>
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<tr>
<td>P128</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P129</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P131</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P136</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P138</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P139</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P140</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P141</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P142</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P143</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P144</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P145</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P146</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P147</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P148</td>
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<td>July 8, 1996.</td>
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<td>P149</td>
<td>All</td>
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</tr>
<tr>
<td>P150</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P201</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P202</td>
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<td>July 8, 1996.</td>
</tr>
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<td>P203</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P204</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>P205</td>
<td>All</td>
<td>July 8, 1996.</td>
</tr>
<tr>
<td>U271</td>
<td>All</td>
<td>July 8, 1996.</td>
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</table>
### APPENDIX XI TO PART 268—METAL BEARING WASTES PROHIBITED FROM DILUTION IN A COMBUSTION UNIT ACCORDING TO 40 CFR 268.3(c)

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D004</td>
<td>Toxicity Characteristic for Arsenic.</td>
</tr>
<tr>
<td>D005</td>
<td>Toxicity Characteristic for Barium.</td>
</tr>
</tbody>
</table>

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*Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §266.11 of this chapter.*

[286]
### Metal Bearing Wastes Prohibited from Dilution in a Combustion Unit According to 40 CFR 268.3(c) 1—Continued

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste description</th>
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</thead>
<tbody>
<tr>
<td>D006</td>
<td>Toxicity Characteristic for Cadmium.</td>
</tr>
<tr>
<td>D007</td>
<td>Toxicity Characteristic for Chromium.</td>
</tr>
<tr>
<td>D008</td>
<td>Toxicity Characteristic for Lead.</td>
</tr>
<tr>
<td>D009</td>
<td>Toxicity Characteristic for Mercury.</td>
</tr>
<tr>
<td>D010</td>
<td>Toxicity Characteristic for Selenium.</td>
</tr>
<tr>
<td>D011</td>
<td>Toxicity Characteristic for Silver.</td>
</tr>
<tr>
<td>F006</td>
<td>Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-plating on carbon steel; (5) cleaning/striping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.</td>
</tr>
<tr>
<td>F007</td>
<td>Spent cyanide plating bath solutions from electroplating operations.</td>
</tr>
<tr>
<td>F008</td>
<td>Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td>F009</td>
<td>Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td>F010</td>
<td>Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td>F011</td>
<td>Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.</td>
</tr>
<tr>
<td>F012</td>
<td>Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.</td>
</tr>
<tr>
<td>F019</td>
<td>Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process.</td>
</tr>
<tr>
<td>K002</td>
<td>Wastewater treatment sludge from the production of chrome yellow and orange pigments.</td>
</tr>
<tr>
<td>K003</td>
<td>Wastewater treatment sludge from the production of molybdate orange pigments.</td>
</tr>
<tr>
<td>K004</td>
<td>Wastewater treatment sludge from the production of zinc yellow pigments.</td>
</tr>
<tr>
<td>K005</td>
<td>Wastewater treatment sludge from the production of chrome green pigments.</td>
</tr>
<tr>
<td>K006</td>
<td>Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).</td>
</tr>
<tr>
<td>K007</td>
<td>Wastewater treatment sludge from the production of iron blue pigments.</td>
</tr>
<tr>
<td>K008</td>
<td>Oven residue from the production of chrome oxide green pigments.</td>
</tr>
<tr>
<td>K009</td>
<td>Emission control dust/sludge from the primary production of steel in electric furnaces.</td>
</tr>
<tr>
<td>K009</td>
<td>Emission control dust/sludge from secondary lead smelting.</td>
</tr>
<tr>
<td>K009</td>
<td>Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used.</td>
</tr>
<tr>
<td>K100</td>
<td>Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.</td>
</tr>
<tr>
<td>K106</td>
<td>Sludges from the mercury cell processes for making chlorine.</td>
</tr>
<tr>
<td>P010</td>
<td>Arsenic acid H₃AsO₄</td>
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<tr>
<td>P011</td>
<td>Arsenic oxide As₂O₃</td>
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<tr>
<td>P012</td>
<td>Arsenic trioxide</td>
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<tr>
<td>P013</td>
<td>Barium cyanide</td>
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<tr>
<td>P015</td>
<td>Beryllium</td>
</tr>
<tr>
<td>P029</td>
<td>Copper cyanide Cu(CN)</td>
</tr>
<tr>
<td>P074</td>
<td>Nickel cyanide Ni(CN)₂</td>
</tr>
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<td>P087</td>
<td>Osmium tetroxide</td>
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<tr>
<td>P089</td>
<td>Potassium silver cyanide</td>
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<td>P104</td>
<td>Silver cyanide</td>
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<tr>
<td>P113</td>
<td>Thallous iodide</td>
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<td>Thallium (I) selenite</td>
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<td>Thallium (I) sulfate</td>
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<td>P119</td>
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<td>Vanadium oxide V₂O₅</td>
</tr>
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<td>Zinc cyanide.</td>
</tr>
<tr>
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<td>U145</td>
<td>Lead phosphate.</td>
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<td>U151</td>
<td>Mercury.</td>
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<td>Selenious acid.</td>
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<td>Selenium disulfide.</td>
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<tr>
<td>U216</td>
<td>Thallium (I) chloride.</td>
</tr>
<tr>
<td>U217</td>
<td>Thallium (I) nitrate.</td>
</tr>
</tbody>
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1 A combustion unit is defined as any thermal technology subject to 40 CFR part 264, subpart O; Part 265, subpart O; and/or 266, subpart H.

[61 FR 15658, Apr. 8, 1996]
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.

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270.11 Signatories to permit applications and reports.
270.12 Confidentiality of information.
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§ 270.1 Purpose and scope of these regulations.

(a) Coverage. (1) These permit regulations establish provisions for the Hazardous Waste Permit Program under 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Source: 48 FR 14228, Apr. 1, 1983, unless otherwise noted.

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Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Source: 48 FR 14228, Apr. 1, 1983, unless otherwise noted.

(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.

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(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. Treatment, storage, and disposal facilities (TSDs) that are otherwise subject to permitting under RCRA and that meet the criteria in paragraph (b)(1), or paragraph (b)(2) of this section, may be eligible for a standardized permit under subpart J of this part. 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 and 266 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 parts A and B of the permit application at least 180 days before physical construction is expected to commence.
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(1) The facility generates hazardous waste and then non-thermally treats or stores hazardous waste on-site in tanks, containers, or containment buildings; or

(2) The facility receives hazardous waste generated off-site by a generator under the same ownership as the receiving facility, and then stores or non-thermally treats the hazardous waste in containers, tanks, or containment buildings.

(c) Scope of the RCRA permit requirement. RCRA requires a permit for the “treatment,” “storage,” and “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. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure (according to §265.115 of this chapter) after January 26, 1983, must have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under §270.1(c)(3) and (6), or obtain an enforceable document in lieu of a post-closure permit, as provided under paragraph (c)(7) of this section. If a post-closure permit is required, the permit must address applicable 40 CFR part 264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements of this chapter. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under this section.

(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 from the barge or vessel itself 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 the time periods provided in 40 CFR 262.34.

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in §262.70 of this chapter;

(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), 291
264.171 and 264.172 of this chapter are complied with.

(viii) Universal waste handlers and universal waste transporters (as defined in 40 CFR 260.10) managing the wastes listed below. These handlers are subject to regulation under 40 part CFR 273.

(A) Batteries as described in 40 CFR 273.2;

(B) Pesticides as described in §273.3 of this chapter;

(C) Mercury-containing equipment as described in §273.4 of this chapter; and

(D) Lamps as described in §273.5 of this chapter.

(ix) A New York State Utility central collection facility consolidating hazardous waste in accordance with 40 CFR 262.90.

(3) Further exclusions. (i) A person is not required to obtain a 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.

(D) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 40 CFR 260.10.

(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.

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist’s organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(4) Permits for less than an entire facility. EPA may issue or deny 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.

(5) Closure by removal. Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under part 265 standards must obtain a post-closure permit unless they can demonstrate to the Regional Administrator that the closure met the standards for closure by removal or decontamination in §264.238, §264.280(e), or §264.258, respectively. The demonstration may be made in the following ways:

(i) If the owner/operator has submitted a part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that section 264 closure by removal standards were met. If the Regional Administrator believes that §264 standards were met, he/she will notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in paragraph (c)(6) of this section.

(ii) If the owner/operator has not submitted a part B application for a post-closure permit, the owner/operator may petition the Regional Administrator for a determination that a post-closure permit is not required because the closure met the applicable part 264 closure standards.

(A) The petition must include data demonstrating that closure by removal or decontamination standards were met, or it must demonstrate that the unit closed under State requirements that met or exceeded the applicable 264 closure-by-removal standard.

(B) The Regional Administrator shall approve or deny the petition according to the procedures outlined in paragraph (c)(6) of this section.

(6) Procedures for closure equivalency determination. (i) If a facility owner/operator seeks an equivalency demonstration under §270.1(c)(5), the Regional Administrator will provide the public, through a newspaper notice, the
opportunity to submit written comments on the information submitted by the owner/operator within 30 days from the date of the notice. The Regional Administrator will also, in response to a request or at his/her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the part 265 closure to a part 264 closure. 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.)

(ii) The Regional Administrator will determine whether the part 265 closure met 264 closure by removal or decontamination requirements within 90 days of its receipt. If the Regional Administrator finds that the closure did not meet the applicable part 264 standards, he/she will provide the owner/operator with a written statement of the reasons why the closure failed to meet part 264 standards. The owner/operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Regional Administrator will review any additional information submitted and make a final determination within 60 days.

(iii) If the Regional Administrator determines that the facility did not close in accordance with part 264 closure by removal standards, the facility is subject to post-closure permitting requirements.

(7) Enforceable documents for post-closure care. At the discretion of the Regional Administrator, an owner or operator may obtain, in lieu of a post-closure permit, an enforceable document imposing the requirements of 40 CFR 265.121. “Enforceable document” means an order, a plan, or other document issued by EPA or by an authorized State under an authority that meets the requirements of 40 CFR 271.16(e) including, but not limited to, a corrective action order issued by EPA under section 3008(h), a CERCLA remedial action, or a closure or post-closure plan.

§ 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 approved States, including any approved modifications or revisions. Application also includes the information required by the Director under §§ 270.14 through 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.

Component means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function (e.g., a pump seal, pump, kiln liner, kiln thermocouple).

Corrective Action Management Unit or CAMU means an area within a facility that is designated by the Regional Administrator under part 264 subpart S, for the purpose of implementing corrective action requirements under §264.101 and RCRA section 3008(h).
CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.


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. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

Draft permit means a document prepared under §214.6 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 §214.5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in §214.5 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 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, tank system, 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 mailing list means the mailing list for a facility maintained by EPA in accordance with 40 CFR 124.10(c)(1)(ix).

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.

Functionally equivalent component means a component which performs the same function or measurement and
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which meets or exceeds the performance specifications of another component.

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(g)(2) 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 of this chapter. Permit includes permit by rule (§270.60), emergency permit (§270.61) and standardized permit (subpart J of this part). Permit does not include RCRA interim status (subpart G of this part), or any permit which has not 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.

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.


Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Remedial Action Plan (RAP) means a special form of RCRA permit that a facility owner or operator may obtain instead of a permit issued under §§270.3 through 270.66, to authorize the treatment, storage or disposal of hazardous remediation waste (as defined in §260.10 of this chapter) at a remediation waste management site.

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.


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.

Standardized permit means a RCRA permit issued under part 124, subpart G of this chapter and subpart J of this part authorizing the facility owner or operator to manage hazardous waste. The standardized permit may have two parts: A uniform portion issued in all cases and a supplemental portion issued at the Director’s discretion.

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

(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 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 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 or tank system in §260.10 of this chapter.

§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 potential 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 consents with the certification (or the Secretary of Commerce overrides the State’s nonconcurrency).

(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]


§270.4 Effect of a permit.

(a)(1) Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

(i) Become effective by statute;

(ii) Are promulgated under part 268 of this chapter restricting the placement of hazardous wastes in or on the land;
(iii) Are promulgated under part 264 of this chapter regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and will be implemented through the procedures of §270.42 Class 1 permit modifications; or
(iv) Are promulgated under subparts AA, BB, or CC of part 265 of this chapter limiting air emissions.

(2) A permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§270.41 and 270.43, or the permit may be modified upon the request of the permittee as set forth in §270.42.

(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:

(i) Format. The report shall use the following format:

(1) Information on noncompliance for each facility;

(2) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first; and

(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.

(iii) Failure to complete or provide compliance schedule or monitoring reports.

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 noncompliance 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 noncompliance 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 prescribed 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

<table>
<thead>
<tr>
<th>Quarters Covered</th>
<th>Date for completion of reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>January, February, and March</td>
<td>May 31</td>
</tr>
<tr>
<td>April, May, and June</td>
<td>August 31</td>
</tr>
<tr>
<td>July, August, and September</td>
<td>November 30</td>
</tr>
<tr>
<td>October, November, and December</td>
<td>February 28</td>
</tr>
</tbody>
</table>

1 Reports must be made available to the public for inspection and copying on this date.


§270.6 References.

(a) When used in part 270 of this chapter, the following publications are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. 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
§ 270.10 General application requirements.

(a) Applying for a permit. Below is information on how to obtain a permit and where to find requirements for specific permits:

(1) If you are covered by RCRA permits by rule (§ 270.60), you need not apply.

(2) If you currently have interim status, you must apply for permits when required by the Director.

(3) If you are required to have a permit (including new applicants and permittees with expiring permits), you must complete, sign, and submit an application to the Director, as described in this section and §§ 270.70 through 270.73.

(4) If you are seeking an emergency permit, the procedures for application, issuance, and administration are found exclusively in § 270.61.

(5) If you are seeking a research, development, and demonstration permit, the procedures for application, issuance, and administration are found exclusively in § 270.65.

(6) If you are seeking a standardized permit, the procedures for application and issuance are found in part 124, subpart G of this chapter and subpart J of this part.

(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 satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in paragraph (j) of this section. The Director may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(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 and interim status qualifications. (1) Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under the act that render the facility subject to the requirement to have a RCRA permit must submit part A of their permit application 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 part 265 or 266, or

(ii) Thirty days after the date they first become subject to the standards set forth in 40 CFR part 265 or 266, whichever first occurs.

(iii) For generators generating greater than 100 kilograms but less than 1000

Subpart B—Permit Application
kilograms of hazardous waste in a calendar month and treats, stores, or disposes of these wastes on-site, by March 24, 1987.

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 part 265 or 266 at a later date because of revisions to part 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) The owner or operator of an existing hazardous waste management facility may be required 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 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 hazardous waste management facility may voluntarily submit part B of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste management facility must submit a part B permit application in accordance with the dates specified in §270.73. Any owner or operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments under this Act that render the facility subject to the requirement to have a RCRA permit must submit a part B application in accordance with the dates specified in §270.73.

(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 parts A and B of the permit application and having received a finally effective RCRA permit.

(2) An application for a permit for a new hazardous waste management facility (including both Parts A and 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 hazardous waste management facility is proposed to be located has not received interim or final authorization for permitting such facility; 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) Notwithstanding paragraph (f)(1) of this section, a person may construct a facility for the incineration of polychlorinated biphenyls pursuant to an approval issued by the Administrator under section (6)(e) of the Toxic Substances Control Act and any person owning or operating such a facility may, at any time after construction or operation of such facility has begun, file an application for a RCRA permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under Subtitle C of RCRA.

(g) Updating permit applications. (1) If any owner or operator of a hazardous waste management 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 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 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. Revised 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 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) Reapplying for a permit. If you have an effective permit and you want to reapply for a new one, you have two options:

(1) You may submit a new application at least 180 days before the expiration date of the effective permit, unless the Director allows a later date. The Director may not allow you to submit applications or Notices of Intent later than the expiration date of the existing permit, except as allowed by §270.51(e)(2).

(1) 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.

(j) Exposure information. (1) After August 8, 1985, any part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (j)(1)(i) of this section; and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a part B application must submit the exposure information required in paragraph (j)(1) of this section.

(k) The Director may require a permittee or an applicant to submit information in order to establish permit conditions under §§270.32(b)(2) and 270.50(d) of this chapter.

(l) If the Director concludes, based on one or more of the factors listed in paragraph (k) of this section that compliance with the standards of 40 CFR part 63, subpart EEE alone may not be protective of human health or
the environment, the Director shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The Director may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

(1) The Director shall base the evaluation of whether compliance with the standards of 40 CFR part 63, subpart EEEE alone is protective of human health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

(i) Particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;

(ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants considering enforceable controls in place to limit those pollutants;

(iii) Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities (confirmation of which should be made through emissions testing);

(iv) Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;

(v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;

(vi) Volume and types of wastes, for example wastes containing highly toxic constituents;

(vii) Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;

(viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and

(ix) Such other factors as may be appropriate.

(2) [Reserved]

§ 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 decision-making 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
§ 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:

(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) 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.

(l) 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.

(n) For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility.


§ 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 §§0.14 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 the requirements in §270.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a qualified Professional Engineer. For post-closure permits, only the information specified in §270.28 is required in part B of the permit application.
(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 and hazardous debris 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 of this chapter.

(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.


(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, 264.255, and 264.200.

(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;

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

(vi) Prevent releases to atmosphere.

(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,
(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 investigation shall document 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)(11)(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:

(I) 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, 264.118, and 264.197. Include, where applicable, as part of the plans, specific requirements in §§264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601, and 264.603.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under §264.119 have been filed.

(15) The most recent closure cost estimate for the facility prepared in accordance with §264.142 and a copy of the documentation required to demonstrate financial assurance under §264.143. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with §264.144 plus a copy of the documentation required to demonstrate financial assurance under §264.145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(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(b) and, if applicable, §264.147(c), 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 1,000 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.

(21) For land disposal facilities, if a case-by-case extension has been approved under §268.5 or a petition has
been approved under §268.6, a copy of the notice of approval for the extension or petition is required.

(22) A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under §124.31(c).

(c) Additional information requirements. The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in §264.90(b) of this chapter:

(1) A summary of the groundwater monitoring data obtained during the interim status period under §§265.90 through 265.94, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater 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 groundwater 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 groundwater 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 IX, of part 264 of this chapter, constituent throughout the plume or identifies the maximum concentrations of each appendix IX constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed groundwater 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 groundwater 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 groundwater 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 comparison procedures to be utilized in evaluating groundwater monitoring data.

(7) If the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of the 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. Except as provided in §264.98(h)(5), the owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of §264.100, unless the owner or operator obtains written authorization in advance from the Regional Administrator to submit a proposed permit schedule for submittal of such a plan. 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 groundwater, 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.

(b) 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.

(v) The permit may contain a schedule for submittal of the information required in paragraphs (c)(8) (iii) and (iv) provided the owner or operator obtains written authorization from the Regional Administrator prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units. (1) The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under paragraph (b)(19) of this section.

(ii) Designation of type of unit.

(iii) General dimensions and structural description (supply any available drawings).

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

(2) The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

(3) The owner/operator must conduct and provide the results of sampling and analysis of groundwater, landsurface, and subsurface strata, surface water, or air, which may include the installation of wells, where the Director ascertains it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.


EDITORIAL NOTE: For Federal Register citations affecting §270.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 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
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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).

(e) Information on air emission control equipment as required in §270.27.

§270.16 Specific part B information requirements for tank systems.

Except as otherwise provided in §264.190, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

(a) A written assessment that is reviewed and certified by a qualified Professional Engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under §§264.191 and 264.192 of this chapter;
(b) Dimensions and capacity of each tank;
(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);
(d) A diagram of piping, instrumentation, and process flow for each tank system;
(e) A description of materials and equipment used to provide external corrosion protection, as required under §264.192(a)(3)(ii);
(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with §264.192 (b), (c), (d), and (e);
(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of §264.193 (a), (b), (c), (d), (e), and (f);
(h) For tank systems for which a variance from the requirements of §264.193 is sought (as provided by §§264.193(g)):

(1) 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 waste or hazardous constituents into the ground water or surface water during the life of the facility, or
(2) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under §264.194(b); and

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of §§264.196 and 264.199.

(k) Information on air emission control equipment as required in §270.27.

§ 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 designed and will be constructed, operated, and maintained to meet the requirements of §§ 264.19, 264.221, 264.222, and 264.223 of this chapter, addressing the following items:

(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) The double liner and leak (leachate) detection, collection, and removal system, if the surface impoundment must meet the requirements of § 264.221(c) of this chapter. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by § 264.221(d), (e), or (f) of this chapter, submit appropriate information;

(3) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(4) The construction quality assurance (CQA) plan if required under § 264.19 of this chapter;

(5) Proposed action leakage rate, with rationale, if required under § 264.222 of this chapter, and response action plan, if required under § 264.223 of this chapter;

(6) Prevention of overtopping; and

(7) Structural integrity of dikes;

(c) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, will be inspected in order to meet the requirements of § 264.226(a), (b), and (d) of this chapter. This information must be included in the inspection plan submitted under § 270.14(b)(5);

(d) 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;

(e) 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);

(f) 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);

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how § 264.229 will be complied with;

(h) 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;

(i) 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:
§ 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) or §264.90(b)(2), an explanation of how the standards of §264.250(c) will be complied with or detailed plans and an engineering report describing how the requirements of §264.90(b)(2) will be met.

(c) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of §§264.19, 264.251, 264.252, and 264.253 of this chapter, addressing the following items:

(1)(i) The liner system (except for an existing portion of a waste pile), if the waste pile must meet the requirements of §264.251(a) of this chapter. If an exemption from the requirement for a liner is sought as provided by §264.251(b) of this chapter, submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs 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;

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the waste pile must meet the requirements of §264.251(c) of this chapter. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by §264.251(d), (e), or (f) of this chapter, submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under §264.19 of this chapter;

(v) Proposed action leakage rate, with rationale, if required under §264.252 of this chapter, and response action plan, if required under §264.253 of this chapter;

(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) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of §§264.254(a), (b), and (c) of this chapter. This information must be included in the inspection plan submitted under §270.14(b)(5);

(e) 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;

(f) 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;

(g) 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;
§ 270.19 Specific part B information requirements for incinerators.

Except as § 264.340 of this Chapter and § 270.19(e) provide otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of paragraphs (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 appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.
(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 comparable 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:

   (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.

(e) When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in part 63, subpart EEE, of this chapter (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under §§63.1207(j) and 63.1210(d) of this chapter.}
§ 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;
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(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.

(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.

§ 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 designed and is or will be constructed, operated, and maintained to meet the requirements of §§264.19, 264.301, 264.302, and 264.303 of this chapter, addressing the following items:

(1)(i) The liner system (except for an existing portion of a landfill), if the landfill must meet the requirements of §264.301(a) of this chapter. If an exemption from the requirement for a liner is sought as provided by §264.301(b) of this chapter, submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs 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;

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the landfill must meet the requirements of §264.301(c) of this chapter. If an exemption from the requirement for a liner is sought as provided by §264.301(b) of this chapter, submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs 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;

(iii) The double liner and leak (leachate) detection, collection, and removal system, if the landfill must meet the requirements of §264.301(c) of this chapter. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by §264.301(d), (e), or (f) of this chapter, submit appropriate information;

(3) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system.
design and operation, and the location of the saturated zone in relation to the leak detection system;
(iv) The construction quality assurance (CQA) plan if required under §264.19 of this chapter;
(v) Proposed action leakage rate, with rationale, if required under §264.302 of this chapter, and response action plan, if required under §264.303 of this chapter;
(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) A description of how each landfill, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of §264.303(a), (b), and (c) of this chapter. This information must be included in the inspection plan submitted under §270.14(b)(5);
(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 accordance 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 prior to May 8, 1985, an explanation of how the requirements of §264.314(a) 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.
(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.
§270.22 Specific part B information requirements for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in part 63, subpart EEE, of this chapter (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under §§63.1207(j) and 63.1210(d) of this chapter documenting compliance with all applicable requirements of part 63, subpart EEE, of this chapter), the requirements of this section do not
apply. The requirements of this section do apply, however, if the Director determines certain provisions are necessary to ensure compliance with §§266.102(e)(1) and 266.102(e)(2)(iii) of this chapter if you elect to comply with §270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with §§266.105, 266.106, and 266.107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with §§270.10(k), 270.10(l), 270.32(b)(2), and 270.32(b)(3).

(a) Trial burns—(1) General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by §266.104 of this chapter, standards to control particulate matter provided by §266.105 of this chapter, standards to control metals emissions provided by §266.106 of this chapter, or standards to control hydrogen chloride or chlorine gas emissions provided by §266.107 of this chapter must conduct a trial burn to demonstrate conformance with those standards and must submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with §270.66.

(i) A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of §§266.104 through 266.107 of this chapter and paragraphs (a)(2) through (a)(5) of this section; and

(ii) The owner or operator may submit data in lieu of a trial burn, as prescribed in paragraph (a)(6) of this section.

(2) Waiver of trial burn for DRE—(1) Boilers operated under special operating requirements. When seeking to be permitted under §§266.104(a)(4) and 266.110 of this chapter that automatically waive the DRE trial burn, the owner or operator of a boiler must submit documentation that the boiler operates under the special operating requirements provided by §266.110 of this chapter.

(ii) Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by §§266.104(a)(5) and 266.109(a) of this chapter that waive the DRE trial burn, the owner or operator must submit:

(A) Documentation that the device is operated in conformance with the requirements of §266.109(a)(1) of this chapter.

(B) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in appendix VIII of part 261 of this chapter, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained. The analysis must rely on appropriate analytical techniques.

(C) Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in paragraph (a)(2)(ii)(B) of this section using procedures provided by §266.109(a)(2)(ii) of this chapter.

(D) Results of emissions dispersion modeling for emissions identified in paragraphs (a)(2)(ii)(C) of this section using modeling procedures prescribed by §266.106(h) of this chapter. The Director will review the emission modeling conducted by the applicant to determine conformance with these procedures. The Director will either approve the modeling or determine that alternate or supplementary modeling is appropriate.

(E) Documentation that the maximum annual average ground level concentration of each constituent identified in paragraph (a)(2)(ii)(B) of this section quantified in conformance with paragraph (a)(2)(ii)(D) of this section does not exceed the allowable ambient level established in appendices IV or V of part 266. The acceptable ambient concentration for emitted constituents for which a specific Reference Air Concentration has not been established in appendix IV or Risk-Specific Dose has not been established in appendix V is 0.1 micrograms per cubic meter, as noted in the footnote to appendix IV.

(3) Waiver of trial burn for metals. When seeking to be permitted under
the Tier I (or adjusted Tier I) metals feed rate screening limits provided by §266.106 (b) and (e) of this chapter that control metals emissions without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the concentration of each metal controlled by §266.106 (b) or (e) of this chapter in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

(iii) Documentation of how the applicant will ensure that the Tier I feed rate screening limits provided by §266.106 (b) or (e) of this chapter will not be exceeded during the averaging period provided by that paragraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by §266.106 (b)(3) through (b)(5) of this chapter;

(v) Documentation of compliance with the provisions of §266.106(b)(6), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by §266.106(b)(7) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

(4) Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of §266.109(b) which waives the particulate standard (and trial burn to demonstrate conformance with the particulate standard), applicants must submit documentation supporting conformance with paragraphs (a)(2)(ii) and (a)(3) of this section.

(5) Waiver of trial burn for HCl and Cl₂. When seeking to be permitted under the Tier I (or adjusted Tier I) feed rate screening limits for total chloride and chlorine provided by §266.107 (b)(1) and (e) of this chapter that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl₂) without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

(iii) Documentation of how the applicant will ensure that the Tier I (or adjusted Tier I) feed rate screening limits provided by §266.107 (b)(1) or (e) of this chapter will not be exceeded during the averaging period provided by that paragraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by §266.107(b)(3) of this chapter;

(v) Documentation of compliance with the provisions of §266.107(b)(4), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by §266.107(b)(3) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(6) Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with §§266.104 through 266.107 of this chapter and §270.66 by providing the information required by §270.66 from previous compliance testing of the device in conformance with §266.103 of this chapter, or from compliance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by §270.66 must be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information must be provided. The Director shall approve a permit application without a trial burn if he
finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify (under §266.102 of this chapter) operating conditions that will ensure conformance with §266.102(c) of this chapter. In addition, the following information shall be submitted:

(i) For a waiver from any trial burn:
(A) A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;
(B) The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and
(C) Such supplemental information as the Director finds necessary to achieve the purposes of this paragraph.

(ii) For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in §266.104(a) of this chapter. This analysis should specify the constituents in appendix VIII, part 261 of this chapter, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(b) *Alternative HC limit for industrial furnaces with organic matter in raw materials.* Owners and operators of industrial furnaces requesting an alternative HC limit under §266.104(f) of this chapter shall submit the following information at a minimum:

(1) Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

(2) Documentation of the proposed baseline flue gas HC (and CO) concentration, including data on HC (and CO) levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

(3) Test burn protocol to confirm the baseline HC (and CO) level including information on the type and flow rate of all feedstreams, point of introduction of all feedstreams, total organic carbon content (or other appropriate measure of organic content) of all nonfuel feedstreams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from nonfuel sources;

(4) Trial burn plan to:
(i) Demonstrate that flue gas HC (and CO) concentrations when burning hazardous waste do not exceed the baseline HC (and CO) level; and
(ii) Identify the types and concentrations of organic compounds listed in appendix VIII, part 261 of this chapter, that are emitted when burning hazardous waste in conformance with procedures prescribed by the Director;

(5) Implementation plan to monitor over time changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

(6) Such other information as the Director finds necessary to achieve the purposes of this paragraph.

(c) *Alternative metals implementation approach.* When seeking to be permitted under an alternative metals implementation approach under §266.106(f) of this chapter, the owner or operator must submit documentation specifying how the approach ensures compliance with the metals emissions standards of §266.106(c) or (d) and how the approach can be effectively implemented and monitored. Further, the owner or operator shall provide such other information that the Director finds necessary to achieve the purposes of this paragraph.

(d) *Automatic waste feed cutoff system.* Owners and operators shall submit information describing the automatic waste feed cutoff system, including any pre-alarm systems that may be used.

(e) *Direct transfer.* Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles (containers, as defined in §266.111 of this chapter) directly to the
Section 270.23 Specific part B information requirements for miscellaneous units.

Except as otherwise provided in §264.600, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units must provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

(1) Physical characteristics, materials of construction, and dimensions of the unit;

(2) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of §§264.601 and 264.602; and

(3) For disposal units, a detailed description of the plans to comply with the post-closure requirements of §264.603.

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of §264.601. If the applicant can demonstrate that he does not violate the environmental performance standards of §264.601 and the Director agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Director to be necessary for evaluation of compliance of the unit with the environmental performance standards of §264.601.

Section 270.24 Specific part B information requirements for process vents.

Except as otherwise provided in §264.1, owners and operators of facilities that have process vents to which subpart AA of part 264 applies must provide the following additional information:

(a) For facilities that cannot install a closed-vent system and control device to comply with the provisions of 40 CFR 264 subpart AA on the effective date that the facility becomes subject to the provisions of 40 CFR 264 or 265 subpart AA, an implementation schedule as specified in §264.1033(a)(2).

(b) Documentation of compliance with the process vent standards in §264.1032, including:

(1) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

(2) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or concentrations) that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.
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(3) Information and data used to determine whether or not a process vent is subject to the requirements of §264.1032.

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of §264.1032, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in §264.1035(b)(3).

(d) Documentation of compliance with §264.1033, including:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by §264.1033(k).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” (incorporated by reference as specified in §270.6) or other engineering texts acceptable to the Regional Administrator that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in §264.1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of §264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

§270.25 Specific part B information requirements for equipment.

Except as otherwise provided in §264.1, owners and operators of facilities that have equipment to which subpart BB of part 264 applies must provide the following additional information:

(a) For each piece of equipment to which subpart BB of part 264 applies:

(1) Equipment identification number and hazardous waste management unit identification.

(2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

(3) Type of equipment (e.g., a pump or pipeline valve).

(4) Percent by weight total organics in the hazardous waste stream at the equipment.

(5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).

(b) For facilities that cannot install a closed-vent system and control device to comply with the provisions of 40 CFR 264 subpart BB on the effective date that the facility becomes subject to the provisions of 40 CFR 264 or 265 subpart BB, an implementation schedule as specified in §264.1033(a)(2).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in §264.1035(b)(3).

(d) Documentation that demonstrates compliance with the equipment standards in §§264.1052 to 264.1059. This documentation shall contain the records required under §264.1064.
§ 270.26 Special part B information requirements for drip pads.

Except as otherwise provided by § 264.1 of this chapter, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to subpart F of part 264 of this chapter, as provided by § 264.90 of this chapter, detailed plans and an engineering report describing how the requirements of § 264.90(b)(2) of this chapter will be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of § 264.573 of this chapter, including the as-built drawings and specifications. This submission must address the following items as specified in § 264.571 of this chapter:

1. The design characteristics of the drip pad;
2. The liner system;
3. The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;
4. Practices designed to maintain drip pads;
5. The associated collection system;
6. Control of run-on to the drip pad;
7. Control of run-off from the drip pad;
8. The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;
9. Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.
10. Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;
11. Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non-pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;
12. Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to...
maintain design capacity of the system;

(13) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(14) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of §264.573 of this chapter. This information should be included in the inspection plan submitted under §270.14(b)(5) of this part.

(15) A certification signed by a qualified Professional Engineer, stating that the drip pad design meets the requirements of paragraphs (a) through (f) of §264.573 of this chapter.

(16) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under §264.575(a) of this chapter. For any waste not to be removed from the drip pad upon closure, the owner or operator must submit detailed plans and an engineering report describing how §264.310(a) and (b) of this chapter 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).

§270.27 Specific Part B information requirements for air emission controls for tanks, surface impoundments, and containers.

(a) Except as otherwise provided in 40 CFR 264.1, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of 40 CFR part 264, subpart CC shall provide the following additional information:

(1) Documentation for each floating roof cover installed on a tank subject to 40 CFR 264.1084(d)(1) or 40 CFR 264.1084(d)(2) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in 40 CFR 264.1085(c)(1).

(2) Identification of each container area subject to the requirements of 40 CFR part 264, subpart CC and certification by the owner or operator that the requirements of this subpart are met.

(3) Documentation for each enclosure used to control air pollutant emissions from tanks or containers in accordance with the requirements of 40 CFR 264.1084(d)(5) or 40 CFR 264.1086(c)(1)(ii) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(4) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of 40 CFR 264.1085(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in 40 CFR 264.1085(c)(1).

(5) Documentation for each closed-vent system and control device installed in accordance with the requirements of 40 CFR 264.1087 that includes design and performance information as specified in §270.24 (c) and (d) of this part.

(6) An emission monitoring plan for both Method 21 in 40 CFR part 60, appendix A and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

(7) When an owner or operator of a facility subject to 40 CFR part 265, subpart CC cannot comply with 40 CFR part 264, subpart CC by the date of permit issuance, the schedule of implementation required under 40 CFR 265.1082.
§ 270.28 Part B information requirements for post-closure permits.

For post-closure permits, the owner or operator is required to submit only the information specified in §§ 270.14(b)(1), (4), (5), (6), (11), (13), (14), (16), (18) and (19), (c), and (d), unless the Regional Administrator determines that additional information from §§ 270.14, 270.16, 270.17, 270.18, 270.20, or 270.21 is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in § 270.1(c)(7).

[63 FR 56735, Oct. 22, 1998]

§ 270.29 Permit denial.

The Director may, pursuant to the procedures in part 124, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

[54 FR 9607, Mar. 7, 1989]

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. (See § 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 request, 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, the certification required by §264.73(b)(9) of this chapter, 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, certification, 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.)

1. 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 except as provided in §270.42, 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 (1)(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 noncompliance 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 noncompliance 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 (l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(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.

(m) Information repository. The Director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in 40 CFR 124.33(b). The information repository will be governed by the provisions in 40 CFR 124.33(c) through (f).

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§ 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)(i) 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 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 §270.33(b), modified or revoked and reissued permits, shall incorporate each of the applicable 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.

§270.40  Transfer of permits.

(a) 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 §270.40(b) or §270.41(b)(2)) to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act.

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the Director in accordance with §270.42 or as a routine change with prior approval under 40 CFR 124.213. The new owner or operator must submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Director. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of 40 CFR part 264, subpart H (Financial Requirements) until the new owner or operator has demonstrated that he or she is complying with the requirements of that subpart. The new owner or operator must demonstrate compliance with subpart H requirements within six months of 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 subpart H, the Director shall notify the old owner or operator that he or she no longer needs to comply with subpart H as of the date of demonstration.

[53 FR 37935, Sept. 28, 1988, as amended at 70 FR 53475, Sept. 8, 2005]

§270.41 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 revocation and reissuance under §124.5 or conducts a review of the permit file), he or she may determine whether 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 paragraph (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 re-opened 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, the Director shall not modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of §270.42, or §270.320 and 40 CFR part 124, subpart G. Otherwise, a draft permit must be prepared and other procedures in part 124 (or procedures of an authorized State program) followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits:

(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 statutory requirements or regulations. The standards or regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued.

(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) Notwithstanding any other provision in this section, when a permit for a land disposal facility is reviewed by the Director under §270.50(d), the Director shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in parts 124, 260 through 266, and 270.

(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.

(3) The Director has received notification under 40 CFR 124.202(b) of a facility owner or operator’s intent to be covered by a standardized permit.

(c) Facility sitting. 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
§ 270.42 Permit modification at the request of the permittee.

(a) Class 1 modifications. (1) Except as provided in paragraph (a)(2) of this section, the permittee may put into effect Class 1 modifications listed in appendix I of this section under the following conditions:

(i) The permittee must notify the Director concerning the modification by certified mail or other means that establish proof of delivery within 7 calendar days after the change is put into effect. This notice must specify the changes being made to permit conditions or supporting documents referenced by the permit and must explain why they are necessary. Along with the notice, the permittee must provide the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(ii) The permittee must send a notice of the modification to all persons on the facility mailing list maintained by the Director in accordance with 40 CFR 124.10(c)(viii), and the appropriate units of State and local government, as specified in 40 CFR 124.10(c)(ix). This notice must be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, in accordance with §270.42(b)(5), and the name and address of an Agency contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting held in accordance with §270.42(b)(4);

(iii) Name and telephone number of the permittee’s contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: “The permittee’s compliance history during the life of the permit being modified is available from the Agency contact person.”

(2) Class 1 permit modifications identified in appendix I by an asterisk may be made only with the prior written approval of the Director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in §270.42(b) for Class 2 modifications instead of the Class 1 procedures. The permittee must inform the Director of this decision in the notice required in §270.42(b)(1).

(b) Class 2 modifications. (1) For Class 2 modifications, listed in appendix I of this section, the permittee must submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 2 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, in accordance with §270.42(b)(5), and the name and address of an Agency contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting held in accordance with §270.42(b)(4);

(iii) Name and telephone number of the permittee’s contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: “The permittee’s compliance history during the life of the permit being modified is available from the Agency contact person.”
(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (b)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Agency contact identified in the public notice.

(6)(i) No later than 90 days after receipt of the notification request, the Director must:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;
(B) Deny the request;
(C) Determine that the modification request must follow the procedures in §270.42(c) for Class 3 modifications for the following reasons:
   (1) There is significant public concern about the proposed modification; or
   (2) The complex nature of the change requires the more extensive procedures of Class 3.
   (D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days.

(ii) If the Director notifies the permittee of a 30-day extension for a decision, the Director must, no later than 120 days after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal Agency action. The authorized activities must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR part 265. If the Director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in paragraphs (b)(6) (i), (ii), or (iii) of this section, such action cancels the temporary or automatic authorization.

(iv)(A) In the case of an automatic authorization under paragraph (b)(6)(iii) of this section, or a temporary authorization under paragraph (b)(6) (i)(D) or (ii)(D) of this section, if the Director has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee must within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:
   (1) The permittee has been authorized temporarily to conduct the activities described in the permit modification request, and
   (2) Unless the Director acts to give final approval or denial of the modification request by the end of the authorization period, the permittee will receive authorization to conduct such activities for the life of the permit.

(B) If the owner/operator fails to notify the public by the date specified in paragraph (b)(6)(iv)(A) of this section,
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the effective date of the permanent authorization will be deferred until 50 days after the owner/operator notifies the public.

(v) Except as provided in paragraph (b)(6)(vii) of this section, if the Director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under §270.41 or §270.42. The activities authorized under this paragraph must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR part 265.

(vi) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the Director must consider all written comments submitted to the Agency during the public comment period and must respond in writing to all significant comments in his or her decision.

(vii) With the written consent of the permittee, the Director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(7) The Director may deny or change the terms of a Class 2 permit modification request under paragraphs (b)(6)(i) through (iii) of this section for the following reasons:

(i) The modification request is incomplete;

(ii) The requested modification does not comply with the appropriate requirements of 40 CFR part 264 or other applicable requirements; or

(iii) The conditions of the modification fail to protect human health and the environment.

(8) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the Director establishes a later date for commencing construction and informs the permittee in writing before day 60.

(c) Class 3 modifications. (1) For Class 3 modifications listed in appendix I of this section, the permittee must submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 3 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by 40 CFR 270.13 through 270.22, 270.62, 270.63, and 270.66.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, and a name and address of an Agency contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with §270.42(c)(4);

(iii) Name and telephone number of the permittee’s contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: “The permittee’s compliance history during the life of the permit being modified is available from the Agency contact person.”

(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after
the publication of the notice required in paragraph (c)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Agency contact identified in the notice.

(6) After the conclusion of the 60-day comment period, the Director must grant or deny the permit modification request according to the permit modification procedures of 40 CFR part 124. In addition, the Director must consider and respond to all significant written comments received during the 60-day comment period.

(d) Other modifications. (1) In the case of modifications not explicitly listed in appendix I of this section, the permittee may submit a Class 3 modification request to the Agency, or he or she may request a determination by the Director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, he or she must provide the Agency with the necessary information to support the requested classification.

(2) The Director shall make the determination described in paragraph (d)(1) of this section as promptly as practicable. In determining the appropriate class for a specific modification, the Director shall consider the similarity of the modification to other modifications codified in appendix I and the following criteria:

(i) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Director may require prior approval.

(ii) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to:

(A) Common variations in the types and quantities of the wastes managed under the facility permit,
(B) Technological advancements, and
(C) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(iii) Class 3 modifications substantially alter the facility or its operation.

(e) Temporary authorizations. (1) Upon request of the permittee, the Director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations must have a term of not more than 180 days.

(2)(i) The permittee may request a temporary authorization for:

(A) Any Class 2 modification meeting the criteria in paragraph (e)(3)(ii) of this section, and
(B) Any Class 3 modification that meets the criteria in paragraph (3)(ii) (A) or (B) of this section; or that meets the criteria in paragraphs (3)(ii) (C) through (E) of this section and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(ii) The temporary authorization request must include:

(A) A description of the activities to be conducted under the temporary authorization;
(B) An explanation of why the temporary authorization is necessary; and
(C) Sufficient information to ensure compliance with 40 CFR part 264 standards.

(iii) The permittee must send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Director and to appropriate units of State and local governments as specified in 40 CFR 124.10(c)(ix). This notification must be made within seven days of submission of the authorization request.

(3) The Director shall approve or deny the temporary authorization as
quickly as practical. To issue a temporary authorization, the Director must find:

(i) The authorized activities are in compliance with the standards of 40 CFR part 264.

(ii) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(A) To facilitate timely implementation of closure or corrective action activities;

(B) To allow treatment or storage in tanks or containers, or in containment buildings in accordance with 40 CFR part 268;

(C) To prevent disruption of ongoing waste management activities;

(D) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(E) To facilitate other changes to protect human health and the environment.

(iii) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(i) The reissued temporary authorization constitutes the Director’s decision on a Class 2 or 3 permit modification in accordance with paragraph (b)(6)(i)(D) or (ii)(D) of this section, or

(ii) The Director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of paragraph (c) of this section are conducted.

(f) Public notice and appeals of permit modification decisions. (1) The Director shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision under this section to grant or deny a Class 2 or 3 permit modification request. The Director shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under §270.42(b)(6) (iii) or (v).

(2) The Director’s decision to grant or deny a Class 2 or 3 permit modification request under this section may be appealed under the permit appeal procedures of 40 CFR 124.19.

(3) An automatic authorization that goes into effect under §270.42(b)(6) (iii) or (v) may be appealed under the permit appeal procedures of 40 CFR 124.19; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the appeal has been granted pursuant to §124.19(c), notwithstanding the provisions of §124.15(b).

(g) Newly regulated wastes and units. (1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under part 261 of this chapter, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:

(i) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;

(ii) The permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(iii) The permittee is in compliance with the applicable standards of 40 CFR parts 265 and 266 of this chapter;

(iv) The permittee also submits a complete Class 2 or 3 modification request within 180 days of the effective date of the rule listing or identifying the waste, or subjecting the unit to RCRA Subtitle C management standards;

(v) In the case of land disposal units, the permittee certifies that each such unit is in compliance with all applicable requirements of part 265 of this chapter for groundwater monitoring and financial responsibility on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with all these requirements, he or she will lose authority to operate under this section.
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(2) New wastes or units added to a facility’s permit under this subsection do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

(h) Military hazardous waste munitions treatment and disposal. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:

(1) The facility was in existence as a hazardous waste facility, and the facility was already permitted to handle the waste military munitions, on the date when the waste military munitions became subject to hazardous waste regulatory requirements;

(2) On or before the date when the waste military munitions become subject to hazardous waste regulatory requirements, the permittee submits a Class 1 modification request to remove or amend the permit provision restricting the receipt of off-site waste munitions; and

(3) The permittee submits a complete Class 2 modification request within 180 days of the date when the waste military munitions become subject to hazardous waste regulatory requirements.

(j) Permit modification list. The Director must maintain a list of all approved permit modifications and must publish a notice once a year in a Statewide newspaper that an updated list is available for review.

(k) Waiver of RCRA permit conditions in support of transition to the part 63 MACT standards. (1) You may request to have specific RCRA operating and emissions limits waived by submitting a Class 1 permit modification request under appendix I of this section, section L(10). You must:

(i) Identify the specific RCRA permit operating and emissions limits which you are requesting to waive;

(ii) Provide an explanation of why the changes are necessary in order to minimize or eliminate conflicts between the RCRA permit and MACT compliance; and

(iii) Discuss how the revised provisions will be sufficiently protective.

(iv) The Director shall approve or deny the request within 30 days of receipt of the request. The Director may, as his or her discretion, extend this 30 day deadline one time for up to 30 days by notifying the facility owner or operator.

(2) To request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined under 40 CFR 63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) you must:

(i) Submit your modification request to the Director at the same time you submit your test plans to the Administrator; and

(ii) The Director may elect to approve or deny the request continent upon approval of the test plans.

(l) Performance Track member facilities. The following procedures apply to Performance Track member facilities that request a permit modification under appendix I of this section, section O(1),
(1) Performance Track member facilities must have complied with the requirements of §261.4(b)(5) in order to request a permit modification under this section.

(2) The Performance Track member facility should consider the application approved if the Director does not: deny the application, in writing; or notify the Performance Track member facility, in writing, of an extension to the 60-day deadline within 60 days of receiving the request. In these situations, the Performance Track member facility must adhere to the revised inspection schedule outlined in its application and maintain a copy of the application in the facility’s operating record.

APPENDIX I TO §270.42—CLASSIFICATION OF PERMIT MODIFICATION

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</tr>
<tr>
<td>5. Schedule of compliance:</td>
<td></td>
</tr>
<tr>
<td>a. Changes in interim compliance dates, with prior approval of the Director</td>
<td>1</td>
</tr>
<tr>
<td>b. Extension of final compliance date</td>
<td>3</td>
</tr>
<tr>
<td>6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director</td>
<td>1</td>
</tr>
<tr>
<td>7. Changes in ownership or operational control of a facility, provided the procedures of §270.40(b) are followed</td>
<td>1</td>
</tr>
<tr>
<td>8. Changes to remove permit conditions that are no longer applicable (i.e., because the standards upon which they are based are no longer applicable to the facility)</td>
<td>1</td>
</tr>
<tr>
<td>9. Changes to remove permit conditions applicable to a unit excluded under the provisions of §261.4.</td>
<td>1</td>
</tr>
<tr>
<td>10. Changes in the expiration date of a permit issued to a facility at which all units are excluded under the provisions of §261.4.</td>
<td>1</td>
</tr>
<tr>
<td>B. General Facility Standards</td>
<td></td>
</tr>
<tr>
<td>1. Changes to waste sampling or analysis methods:</td>
<td></td>
</tr>
<tr>
<td>a. To conform with agency guidance or regulations</td>
<td>1</td>
</tr>
<tr>
<td>b. To incorporate changes associated with FG39 (multi-source leachate) sampling or analysis methods</td>
<td>1</td>
</tr>
<tr>
<td>c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes</td>
<td>1</td>
</tr>
<tr>
<td>d. Other changes</td>
<td>2</td>
</tr>
<tr>
<td>2. Changes to analytical quality assurance/control plan:</td>
<td></td>
</tr>
<tr>
<td>a. To conform with agency guidance or regulations</td>
<td>1</td>
</tr>
<tr>
<td>b. Other changes</td>
<td>2</td>
</tr>
<tr>
<td>3. Changes in procedures for maintaining the operating record</td>
<td></td>
</tr>
<tr>
<td>4. Changes in frequency or content of inspection schedules</td>
<td></td>
</tr>
<tr>
<td>5. Changes in the training plan:</td>
<td></td>
</tr>
<tr>
<td>a. That affect the type or decrease the amount of training given to employees</td>
<td>2</td>
</tr>
<tr>
<td>b. Other changes</td>
<td>1</td>
</tr>
<tr>
<td>6. Contingency plan:</td>
<td></td>
</tr>
<tr>
<td>a. Changes in emergency procedures (i.e., spill or release response procedures)</td>
<td>2</td>
</tr>
<tr>
<td>b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed</td>
<td>1</td>
</tr>
<tr>
<td>c. Removal of equipment from emergency equipment list</td>
<td></td>
</tr>
<tr>
<td>d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan</td>
<td>2</td>
</tr>
<tr>
<td>7. Construction quality assurance plan:</td>
<td></td>
</tr>
<tr>
<td>a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications</td>
<td>1</td>
</tr>
<tr>
<td>b. Other changes</td>
<td>2</td>
</tr>
</tbody>
</table>

NOTE: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the permit modification.

C. Ground-Water Protection

1. Changes to wells:                                                          |       |
| a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground-water monitoring system | 1     |
| b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well | 2     |
| 2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director | 11    |
| 3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Director | 11    |
| 4. Changes in point of compliance                                         |       |
| 5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs): |       |
| a. As specified in the groundwater protection standard                     | 3     |
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APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications | Class
--- | ---
6. Changes to a detection monitoring program as required by § 264.98(h), unless otherwise specified in this appendix | 2
7. Compliance monitoring program: a. Addition of compliance monitoring program as required by §§ 264.98(g)(4) and 264.99 | 3
b. Changes to a compliance monitoring program as required by § 264.99(i), unless otherwise specified in this appendix | 2
8. Corrective action program: a. Addition of a corrective action program as required by §§ 264.99(h)(2) and 264.100 | 3
b. Changes to a corrective action program as required by § 264.100(h), unless otherwise specified in this appendix | 2
D. Closure
1. Changes to the closure plan: a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director | 1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director | 1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director | 1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director | 1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix | 2
f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under § 264.113(d) and (e) | 2
2. Creation of a new landfill unit as part of closure | 3
3. Addition of the following new units to be used temporarily for closure activities: a. Surface impoundments | 3
b. Inert piles | 3
c. Waste piles that do not comply with § 264.250(c) | 3
d. Waste piles that comply with § 264.250(c) | 2
e. Tanks or containers (other than specified below) | 2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the Director | 1
g. Staging piles | 2
E. Post-Closure
1. Changes in name, address, or phone number of contact in post-closure plan | 1
2. Extension of post-closure care period | 2
3. Reduction in the post-closure care period | 3
4. Changes to the expected year of final closure, where other permit conditions are not changed | 1
5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure | 2
F. Containers
1. Modification or addition of container units: a. Resulting in greater than 25% increase in the facility’s container storage capacity, except as provided in F(1)(c) and F(4)(a) below | 3
b. Resulting in up to 25% increase in the facility’s container storage capacity, except as provided in F(1)(c) and F(4)(a) below | 2
c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) | 11
2. a. Modification of a container unit without increasing the capacity of the unit | 2
b. Addition of a roof to a container unit without alteration of the containment system | 1
3. Storage of different wastes in containers, except as provided in F(4)(d) below: a. That require additional or different management practices from those authorized in the permit | 3
b. That do not require additional or different management practices from those authorized in the permit | 2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.
4. Storage or treatment of different wastes in containers: a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) | 11
b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) | 11
### Modifications Class

<table>
<thead>
<tr>
<th>Modifications</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Tanks</td>
<td></td>
</tr>
<tr>
<td>1. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in G(1)(c), G(1)(d), and G(1)(e) below</td>
<td>3</td>
</tr>
<tr>
<td>2. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G(1)(d) and G(1)(e) below</td>
<td>2</td>
</tr>
<tr>
<td>3. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation</td>
<td>2</td>
</tr>
<tr>
<td>4. After prior approval of the Director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation</td>
<td>1</td>
</tr>
<tr>
<td>5. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of &quot;use of practically available technology that yields the greatest environmental benefit&quot; contained in §268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)</td>
<td>1</td>
</tr>
<tr>
<td>6. Management of different wastes in tanks:</td>
<td></td>
</tr>
<tr>
<td>a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(c) below</td>
<td>3</td>
</tr>
<tr>
<td>b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(d)</td>
<td>2</td>
</tr>
<tr>
<td>c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy (in whole or in part) the standard of &quot;use of practically available technology that yields the greatest environmental benefit&quot; contained in §268.8(a)(2)(ii). The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)</td>
<td>1</td>
</tr>
<tr>
<td>d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)</td>
<td>1</td>
</tr>
<tr>
<td>7. Note: See §270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.</td>
<td></td>
</tr>
<tr>
<td>H. Surface Impoundments</td>
<td></td>
</tr>
<tr>
<td>1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity</td>
<td>3</td>
</tr>
<tr>
<td>2. Replacement of a surface impoundment unit</td>
<td>3</td>
</tr>
<tr>
<td>3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system</td>
<td>2</td>
</tr>
<tr>
<td>4. Modification of a surface impoundment management practice</td>
<td>2</td>
</tr>
<tr>
<td>5. Treatment, storage, or disposal of different wastes in surface impoundments:</td>
<td></td>
</tr>
<tr>
<td>a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit</td>
<td>3</td>
</tr>
<tr>
<td>b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit</td>
<td>2</td>
</tr>
<tr>
<td>c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of &quot;use of practically available technology that yields the greatest environmental benefit&quot; contained in §268.8(a)(2)(ii), and provided that the unit meets the minimum technological requirements stated in §268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)</td>
<td>1</td>
</tr>
<tr>
<td>d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in §268.5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)</td>
<td>1</td>
</tr>
<tr>
<td>6. Modifications of unconstructed units to comply with §§264.221(c), 264.222, 264.223, and 264.226(d)</td>
<td>11</td>
</tr>
<tr>
<td>7. Changes in response action plan:</td>
<td></td>
</tr>
<tr>
<td>a. Increase in action leakage rate</td>
<td>3</td>
</tr>
<tr>
<td>b. Change in a specific response reducing its frequency or effectiveness</td>
<td>3</td>
</tr>
<tr>
<td>c. Other changes</td>
<td>2</td>
</tr>
</tbody>
</table>
### Environmental Protection Agency

#### APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

<table>
<thead>
<tr>
<th>Modifiers</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modification or addition of waste pile units:</td>
<td></td>
</tr>
<tr>
<td>a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity</td>
<td>3</td>
</tr>
<tr>
<td>b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity</td>
<td>2</td>
</tr>
<tr>
<td>2. Modification of waste pile unit without increasing the capacity of the unit</td>
<td>2</td>
</tr>
<tr>
<td>3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit</td>
<td>1</td>
</tr>
<tr>
<td>4. Modification of a waste pile management practice</td>
<td></td>
</tr>
<tr>
<td>5. Storage or treatment of different wastes in waste piles:</td>
<td></td>
</tr>
<tr>
<td>a. That require additional or different management practices or different design of the unit</td>
<td>3</td>
</tr>
<tr>
<td>b. That do not require additional or different management practices or different design of the unit</td>
<td>2</td>
</tr>
<tr>
<td>6. Conversion of an enclosed waste pile to a containment building unit</td>
<td>2</td>
</tr>
</tbody>
</table>

### Modifications

#### Landfills and Unenclosed Waste Piles

1. Modification or addition of landfill units that result in increasing the facility's disposal capacity | 3     |
2. Replacement of a landfill | 3     |
3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system | 3     |
4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system | 2     |
5. Modification of a landfill management practice | 2     |
6. Landfill different wastes:
   a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system | 3     |
   b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system | 2     |
   c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in §268.8(a)(2)(i), and provided that the landfill unit meets the minimum technological requirements stated in §268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) | 1     |
   d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in §268.5(h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) | 1     |
7. Modifications of unconstructed units to comply with §§264.251(c), 264.252, 264.253, 264.254(c), 264.301(c), 264.302, 264.303(c), and 264.304 | 1     |
8. Changes in response action plan:
   a. Increase in action leakage rate | 3     |
   b. Change in a specific response reducing its frequency or effectiveness | 3     |
   c. Other changes | 2     |

#### Land Treatment

1. Lateral expansion of or other modification of a land treatment unit to increase areal extent | 3     |
2. Modification of run-on control system | 2     |
3. Modify run-off control system | 3     |
4. Other modifications of land treatment unit component specifications or standards required in permit | 2     |
5. Management of different wastes in land treatment units:
   a. That require a change in permit operating conditions or unit design specifications | 3     |
   b. That do not require a change in permit operating conditions or unit design specifications | 2     |

### Note:

- See §270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.
- See §264.250(c) for modifications that are applicable only to waste piles complying with §264.250(c).
- See §270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.
APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

<table>
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<tr>
<th>Modifications</th>
<th>Class</th>
</tr>
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<tbody>
<tr>
<td>13. Changes in sampling, analysis, or statistical procedure</td>
<td>2</td>
</tr>
<tr>
<td>14. Changes in land treatment demonstration program prior to or during the demonstration</td>
<td>2</td>
</tr>
<tr>
<td>15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Director’s prior approval has been received</td>
<td>6</td>
</tr>
<tr>
<td>16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Director</td>
<td>11</td>
</tr>
<tr>
<td>17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration</td>
<td>11</td>
</tr>
<tr>
<td>18. Changes in vegetative cover requirements for closure</td>
<td>2</td>
</tr>
<tr>
<td>L. Incinerators, Boilers, and Industrial Furnaces:</td>
<td></td>
</tr>
<tr>
<td>1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means</td>
<td>3</td>
</tr>
<tr>
<td>2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means</td>
<td>2</td>
</tr>
<tr>
<td>3. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl₂, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means</td>
<td>3</td>
</tr>
<tr>
<td>4. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The Director may require a new trial burn to demonstrate compliance with the regulatory performance standards</td>
<td>2</td>
</tr>
<tr>
<td>5. Operating requirements:</td>
<td></td>
</tr>
<tr>
<td>a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means</td>
<td>3</td>
</tr>
<tr>
<td>b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls</td>
<td>3</td>
</tr>
<tr>
<td>c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit</td>
<td>2</td>
</tr>
<tr>
<td>6. Burning different wastes:</td>
<td></td>
</tr>
<tr>
<td>a. If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means</td>
<td>3</td>
</tr>
<tr>
<td>b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit</td>
<td>2</td>
</tr>
<tr>
<td>Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.</td>
<td></td>
</tr>
<tr>
<td>7. Shakedown and trial burn:</td>
<td></td>
</tr>
<tr>
<td>a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn</td>
<td>2</td>
</tr>
<tr>
<td>b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Director</td>
<td>11</td>
</tr>
<tr>
<td>c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Director</td>
<td>11</td>
</tr>
<tr>
<td>d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Director</td>
<td>11</td>
</tr>
<tr>
<td>8. Substitution of an alternative type of nonhazardous waste fuel that is not specified in the permit</td>
<td>1</td>
</tr>
<tr>
<td>9. Technology changes needed to meet standards under 40 CFR part 63 (Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of § 270.42(k) are followed.</td>
<td>11</td>
</tr>
<tr>
<td>10. Changes to RCRA permit provisions needed to support transition to 40 CFR part 63 (Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of § 270.42(k) are followed.</td>
<td>11</td>
</tr>
<tr>
<td>M. Containment Buildings:</td>
<td></td>
</tr>
<tr>
<td>1. Modification or addition of containment building units:</td>
<td></td>
</tr>
<tr>
<td>a. Resulting in greater than 25% increase in the facility’s containment building storage or treatment capacity</td>
<td>3</td>
</tr>
</tbody>
</table>
**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 part 22, as appropriate or State procedures in terminating any permit under this section.

**Subpart E—Expiration and Continuation of Permits**

### §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 part 22, as appropriate or State procedures in terminating any permit under this section.

### §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.

(d) Each permit for a land disposal facility shall be reviewed by the Director five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in §270.41.

### §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.
§ 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;
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(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).
(3) For UIC permits issued after November 8, 1984:
   (i) Complies with 40 CFR 264.101; and
   (ii) Where the UIC well is the only unit at a facility which requires a RCRA permit, complies with 40 CFR 270.14(d).

(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 §124.10(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.

§ 270.62 Hazardous waste incinerator permits.

When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in part 63, subpart EEE, of this chapter (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under
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§§ 63.1207(j) and 63.1210(d) of this chapter documenting compliance with all applicable requirements of part 63, subpart EEE, of this chapter, the requirements of this section do not apply, except those provisions the Director determines are necessary to ensure compliance with §§ 264.345(a) and 264.345(c) of this chapter if you elect to comply with § 270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of this section, on a case-by-case basis, for purposes of information collection in accordance with §§ 270.10(k), 270.10(l), 270.32(b)(2), and 270.32(b)(3).

(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 Director 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 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 appropriate analytical techniques.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(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 the incinerator performance standard required by §264.343 of this chapter can be met;

(i) The trial burn is likely to determine whether the incinerator performance standard 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.

(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) The Director must send a notice to all persons on the facility mailing list as set forth in 40 CFR 124.10(c)(1)(ix) and to the appropriate units of State and local government as set forth in 40 CFR 124.10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice must be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice must contain:

(A) The name and telephone number of the applicant's contact person;

(B) The name and telephone number of the permitting agency's contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(7) During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

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(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.

(8) The applicant must submit to the Director 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 purpose 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 for an existing hazardous waste incinerator must prepare and submit a trial burn plan and perform a trial burn in accordance with § 270.19(b) and paragraphs (b)(2) through (b)(5) and (b)(7) through (b)(10) of this section or, instead, submit other information as
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specified in §270.19(c). The Director must announce his or her intention to approve the trial burn plan in accordance with the timing and distribution requirements of paragraph (b)(6) of this section. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the permitting agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for agency approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under §270.19(a) are exempt from compliance with 40 CFR 264.343 and 264.345 and, therefore, are exempt from the requirement to conduct a trial burn. 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)(7) of this section, 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. Trial burn results must be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with part B of the permit application, the Director will specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

§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 under §270.42, or otherwise will proceed as a modification under §270.41(a)(2). If such modifications are necessary, the second phase of the permit will become effective only after those modifications have been made.

(2) If no modifications of the second phase of the permit are necessary, 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).

§270.65 Research, development, and demonstration permits.

(a) The Administrator may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under part 264 or 266. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(1) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in paragraph (d) of this section, and

(2) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Administrator deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(3) Shall include such requirements as the Administrator deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under this section, the Administrator may, consistent with the protection of human health and the environment, modify or
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§ 270.66 Permits for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005 or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in part 63, subpart EEE, of this chapter (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under §§63.1207(j) and 63.1210(d) of this chapter documenting compliance with all applicable requirements of part 63, subpart EEE, of this chapter), the requirements of this section do not apply. The requirements of this section do apply, however, if the Director determines certain provisions are necessary to ensure compliance with §§266.102(e)(1) and 266.102(e)(2)(iii) of this chapter if you elect to comply with §270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with the §§266.105, 266.106, and 266.107 standards and associated requirements for particulate matter, hydrochloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with §§270.10(k), 270.10(1), 270.32(b)(2), and 270.32(b)(3).

(a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of §266.103 of this chapter) are subject to paragraphs (b) through (f) of this section. Boilers and industrial furnaces operating under the interim status standards of §266.103 of this chapter are subject to paragraph (g) of this section.

(b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

(1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Director must establish in the Pretrial Burn Period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The Director 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.

(i) Applicants must submit a statement, with part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of §§266.104 through 266.107 of this chapter during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in §266.102(e) of this chapter.

(ii) 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 §§266.104 through 266.107 of this chapter based on his/her engineering judgment.
(2) **Trial burn period.** For the duration of the trial burn, the Director must establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of §§ 266.104 through 266.107 of this chapter and determining adequate operating conditions under § 266.102(e) of this chapter. Applicants must propose a trial burn plan, prepared under paragraph (c) of this section, to be submitted with part B of the permit application.

(3) **Post-trial burn period.** (i) 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 Director to reflect the trial burn results, the Director will establish the operating requirements most likely to ensure compliance with the performance standards of §§ 266.104 through 266.107 of this chapter based on his engineering judgment.

(ii) Applicants must submit a statement, with part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of §§ 266.104 through 266.107 of this chapter. This statement should include, at a minimum, restrictions on the operating requirements provided by § 266.102(e) of this chapter.

(iii) 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 §§ 266.104 through 266.107 of this chapter based on his/her engineering judgment.

(4) **Final permit period.** For the final period of operation, the Director will develop operating requirements in conformance with § 266.102(e) of this chapter that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of §§ 266.104 through 266.107 of this chapter. Based on the trial burn results, the Director shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification shall proceed according to § 270.42.

(c) **Requirements for trial burn plans.**

The trial burn plan must include the following information. 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:

(1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

   (i) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

   (ii) Viscosity or description of the physical form of the feed stream;

(2) An analysis of each hazardous waste, as fired, including:

   (i) An identification of any hazardous organic constituents listed in appendix VIII, part 261, of this chapter that are present in the feed stream, except that the applicant need not analyze for constituents listed in appendix VIII that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified and the basis for this exclusion explained. The waste analysis must be conducted in accordance with appropriate analytical techniques.

   (ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

   (iii) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

(3) A detailed engineering description of the boiler or industrial furnace, including:

   (i) Manufacturer’s name and model number of the boiler or industrial furnace;

   (ii) Type of boiler or industrial furnace;

   (iii) Maximum design capacity in appropriate units;
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(iv) Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;
(v) Capacity of hazardous waste feed system;
(vi) Description of automatic hazardous waste feed cutoff system(s);
(vii) Description of any air pollution control system; and
(viii) Description of stack gas monitoring and any pollution control monitoring systems.

4) 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.

5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(2) of this section.

6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in §§266.104 through 266.107 of this chapter.

7) A description of, and planned operating conditions for, any emission control equipment that will be used.

8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

9) Such other information as the Director reasonably finds necessary to determine whether the boiler or industrial furnace can meet the performance standards of §§266.104 through 266.107 of this chapter;

(i) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of §§266.104 through 266.107 of this chapter;

(ii) The trial burn itself will not present an imminent hazard to human health and the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under §266.102(e) of this chapter; and

(iv) The information sought in the trial burn cannot reasonably be developed through other means.

3 The Director must send a notice to all persons on the facility mailing list as set forth in 40 CFR 124.10(c)(1)(ix) and to the appropriate units of State and local government as set forth in 40 CFR 124.10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice must be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice must contain:

(A) The name and telephone number of applicant's contact person;

(B) The name and telephone number of the permitting agency contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied;

and

(D) An expected time period for commencement and completion of the trial burn.

4 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 (c) of this section. This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

5 All data collected during any trial burn must be submitted to the Director following completion of the trial burn.
(6) 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.

(e) Special procedures for DRE trial burns. When a DRE trial burn is required under §266.104(a) of this chapter, the Director will specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on information including his/her estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in part 261, subpart D of this chapter, the hazardous waste organic constituent(s) identified in Appendix VII of that part as the basis for listing.

(f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

1. A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);

2. When a DRE trial burn is required under §266.104(a) of this chapter:
   i. A quantitative analysis of the trial POHCs in the hazardous waste feed;
   ii. A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and
   iii. A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in §266.104(a) of this chapter;

3. When a trial burn for chlorinated dioxins and furans is required under §266.104(e) of this chapter, a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetraocta congener(s) of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard;

4. When a trial burn for particulate matter, metals, or HCl/Cl₂ is required under §§266.105, 266.106 (c) or (d), or 266.107 (b)(2) or (c) of this chapter, a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl₂), and computations showing conformance with the applicable emission performance standards;

5. When a trial burn for DRE, metals, or HCl/Cl₂ is required under §§266.104(a), 266.106 (c) or (d), or 266.107 (b)(2) or (c) of this chapter, a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

6. An identification of sources of fugitive emissions and their means of control;

7. A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

8. Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in §§266.104 through 266.107 of this chapter and to establish the operating conditions required by §266.102(e) of this chapter as necessary to meet those performance standards.

(g) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of §266.104 through 266.107 of this chapter and of determining adequate operating conditions under §266.103 of this chapter, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of §266.103 of this chapter must either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of this section or submit other information as specified in §270.22(a)(6). The Director must announce his or her intention to approve of the trial burn plan in accordance with the timing and distribution requirements of paragraph (d)(3) of this
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§ 270.70 Qualifying for interim status.

(a) Any person who owns or operates an “existing HWM facility” or a facility in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit 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.

(c) Paragraph (a) of this section shall not apply to any facility which has been previously denied a RCRA permit or if authority to operate the facility under RCRA has been previously terminated.


§ 270.68 Remedial Action Plans (RAPs).

Remedial Action Plans (RAPs) are special forms of permits that are regulated under subpart H of this part.

[63 FR 65941, Nov. 30, 1998]

Subpart G—Interim Status

§ 270.70 Qualifying for interim status.

(a) Any person who owns or operates an “existing HWM facility” or a facility in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit 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.

(c) Paragraph (a) of this section shall not apply to any facility which has been previously denied a RCRA permit or if authority to operate the facility under RCRA has been previously terminated.

§ 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) Except as provided in paragraph (b), the owner or operator of an interim status facility may make the following changes at the facility:

(1) Treatment, storage, or disposal of new hazardous wastes not previously identified in part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification) if the owner or operator submits a revised part A permit application prior to such treatment, storage, or disposal;

(2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised part A permit application prior to such change (along with a justification explaining the need for the change) and the Director approves the changes because:

(i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(3) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised part A permit application prior to such change (along with a justification explaining the need for the change) and the Director approves the change because:

(i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(4) Changes in the ownership or operational control of a facility 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 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 he is complying with the requirements of that subpart. The new owner or operator must demonstrate compliance with subpart H requirements within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with subpart H, the Director shall notify the old owner or operator in writing that he no longer needs to comply with subpart H as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(5) Changes made in accordance with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by an authorized State under comparable State authority, or by a court in a judicial action brought by EPA or by an authorized State. Changes under this paragraph are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under this paragraph, changes listed under paragraph (a) of this section may
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not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(1) Changes made solely for the purposes of complying with the requirements of 40 CFR 265.193 for tanks and ancillary equipment.

(2) If necessary to comply with Federal, State, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the standards of section 3004(o).

(3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(5) Changes necessary to comply with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by an authorized State under comparable State authority, or by a court in a judicial proceeding brought by EPA or an authorized State, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by part 258 of this chapter or RCRA section 3004, provided that such changes are made solely for the purpose of complying with part 258 of this chapter or RCRA section 3004.

(7) Addition of newly regulated units under paragraph (a)(6) of this section.


§ 270.73 Termination of interim status.

Interim status terminates when:

(a) Final administrative disposition of a permit application, except an application for a remedial action plan (RAP) under subpart H of this part, is made.

(b) Interim status is terminated as provided in §270.10(e)(5).

(c) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, on November 8, 1985, unless:

(1) The owner or operator submits a part B application for a permit for such facility prior to that date; and

(2) The owner or operator certifies that such facility is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(d) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit and which is granted interim status, twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(1) Submits a part B application for a RCRA permit for such facility before the date 12 months after the date on which the facility first becomes subject to such permit requirement; and

(2) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under §270.72(a) (1), (2) or (3), on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable ground water monitoring and financial responsibility requirements.

§ 270.79 Why is this subpart written in a special format?

This subpart is written in a special format to make it easier to understand the regulatory requirements. Like other Environmental Protection Agency (EPA) regulations, this establishes enforceable legal requirements. For this subpart, “I” and “you” refer to the owner/operator.

GENERAL INFORMATION

§ 270.80 What is a RAP?

(a) A RAP is a special form of RCRA permit that you, as an owner or operator, may obtain, instead of a permit issued under §§270.3 through 270.66, to authorize you to treat, store, or dispose of hazardous remediation waste (as defined in §260.10 of this chapter) at a remediation waste management site. A RAP may only be issued for the area of contamination where the remediation wastes to be managed under the RAP originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under §270.230.

(b) The requirements in §§270.3 through 270.66 do not apply to RAPs unless those requirements for traditional RCRA permits are specifically required under §§270.80 through 270.230. The definitions in §270.2 apply to RAPs.

(c) Notwithstanding any other provision of this part or part 124 of this chapter, any document that meets the requirements in this section constitutes a RCRA permit under RCRA section 3005(c).

(d) A RAP may be:

(1) A stand-alone document that includes only the information and conditions required by this subpart; or

(2) Part (or parts) of another document that includes information and/or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by this subpart.

(e) If you are treating, storing, or disposing of hazardous remediation wastes as part of a cleanup compelled by Federal or State cleanup authorities, your RAP does not affect your obligations under those authorities in any way.

(f) If you receive a RAP at a facility operating under interim status, the RAP does not terminate your interim status.

§ 270.85 When do I need a RAP?

(a) Whenever you treat, store, or dispose of hazardous remediation wastes in a manner that requires a RCRA permit under §270.1, you must either obtain:

(1) A RCRA permit according to §§270.3 through 270.66; or

(2) A RAP according to this subpart.

(b) Treatment units that use combustion of hazardous remediation wastes at a remediation waste management site are not eligible for RAPs under this subpart.

(c) You may obtain a RAP for managing hazardous remediation waste at an already permitted RCRA facility. You must have these RAPs approved as a modification to your existing permit according to the requirements of §270.41 or §270.42 instead of the requirements in this subpart. When you submit an application for such a modification, however, the information requirements in §270.42(a)(1)(i), (b)(1)(iv), and
§ 270.100 Who must obtain a RAP?

When a facility or remediation waste management site is owned by one person, but the treatment, storage or disposal activities are operated by another person, it is the operator’s duty to obtain a RAP, except that the owner must also sign the RAP application.

§ 270.105 Who must sign the application and any required reports for a RAP?

Both the owner and the operator must sign the RAP application and any required reports according to §270.11(a), (b), and (c). In the application, both the owner and the operator must also make the certification required under §270.11(d)(1). However, the owner may choose the alternative certification under §270.11(d)(2) if the operator certifies under §270.11(d)(1).

§ 270.110 What must I include in my application for a RAP?

You must include the following information in your application for a RAP:

(a) The name, address, and EPA identification number of the remediation waste management site;
(b) The name, address, and telephone number of the owner and operator;
(c) The latitude and longitude of the site;
(d) The United States Geological Survey (USGS) or county map showing the location of the remediation waste management site;
(e) A scaled drawing of the remediation waste management site showing:
   (1) The remediation waste management site boundaries;
   (2) Any significant physical structures; and
   (3) The boundary of all areas on-site where remediation waste is to be treated, stored or disposed;
(f) A specification of the hazardous remediation waste to be treated, stored or disposed of at the facility or remediation waste management site. This must include information on:
   (1) Constituent concentrations and other properties of the hazardous remediation wastes that may affect how such materials should be treated and/or otherwise managed;
   (2) An estimate of the quantity of these wastes; and
   (3) A description of the processes you will use to treat, store, or dispose of this waste including technologies, handling systems, design and operating parameters you will use to treat hazardous remediation wastes before disposing of them according to the LDR standards of part 268 of this chapter, as applicable;
(g) Enough information to demonstrate that operations that follow the provisions in your RAP application will ensure compliance with applicable requirements of parts 264, 266, and 268 of this chapter;
(h) Such information as may be necessary to enable the Regional Administrator to carry out his duties under other Federal laws as is required for...
§ 270.115 What if I want to keep this information confidential?

Part 2 (Public Information) of this chapter allows you to claim as confidential any or all of the information you submit to EPA under this subpart. You must assert any such claim at the time that you submit your RAP application or other submissions by stamping the words “confidential business information” on each page containing such information. If you do assert a claim at the time you submit the information, EPA will treat the information according to the procedures in part 2 of this chapter. If you do not assert a claim at the time you submit the information, EPA may make the information available to the public without further notice to you. EPA will deny any requests for confidentiality of your name and/or address.

§ 270.120 To whom must I submit my RAP application?

You must submit your application for a RAP to the Director for approval.

§ 270.125 If I submit my RAP application as part of another document, what must I do?

If you submit your application for a RAP as a part of another document, you must clearly identify the components of that document that constitute your RAP application.

GETTING A RAP APPROVED

§ 270.130 What is the process for approving or denying my application for a RAP?

(a) If the Director tentatively finds that your RAP application includes all of the information required by §270.110 and that your proposed remediation waste management activities meet the regulatory standards, the Director will make a tentative decision to approve your RAP application. The Director will then prepare a draft RAP and provide an opportunity for public comment before making a final decision on your RAP application, according to this subpart.

(b) If the Director tentatively finds that your RAP application does not include all of the information required by §270.110 or that your proposed remediation waste management activities do not meet the regulatory standards, the Director may request additional information from you or ask you to correct deficiencies in your application. If you fail or refuse to provide any additional information the Director requests, or to correct any deficiencies in your RAP application, the Director may make a tentative decision to deny your RAP application. After making this tentative decision, the Director will prepare a notice of intent to deny your RAP application ("notice of intent to deny") and provide an opportunity for public comment before making a final decision on your RAP application, according to the requirements in this Subpart. The Director may deny the RAP application either in its entirety or in part.

§ 270.135 What must the Director include in a draft RAP?

If the Director prepares a draft RAP, it must include the:

(a) Information required under §270.110(a) through (f);

(b) The following terms and conditions:

(1) Terms and conditions necessary to ensure that the operating requirements specified in your RAP comply with applicable requirements of parts 264, 266, and 268 of this chapter (including any recordkeeping and reporting requirements). In satisfying this provision, the Director may incorporate, expressly or by reference, applicable requirements of parts 264, 266, and 268 of this chapter into the RAP or establish site-specific conditions as required or allowed by parts 264, 266, and 268 of this chapter;

(2) Terms and conditions in §270.30;

(3) Terms and conditions for modifying, revoking and reissuing, and terminating your RAP, as provided in §270.170; and
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(4) Any additional terms or conditions that the Director determines are necessary to protect human health and the environment, including any terms and conditions necessary to respond to spills and leaks during use of any units permitted under the RAP; and

(c) If the draft RAP is part of another document, as described in §270.80(d)(2), the Director must clearly identify the components of that document that constitute the draft RAP.

§ 270.140 What else must the Director prepare in addition to the draft RAP or notice of intent to deny?

Once the Director has prepared the draft RAP or notice of intent to deny, he must then:

(a) Prepare a statement of basis that briefly describes the derivation of the conditions of the draft RAP and the reasons for them, or the rationale for the notice of intent to deny;

(b) Compile an administrative record, including:

(1) The RAP application, and any supporting data furnished by the applicant;

(2) The draft RAP or notice of intent to deny;

(3) The statement of basis and all documents cited therein (material readily available at the issuing Regional office or published material that is generally available need not be physically included with the rest of the record, as long as it is specifically referred to in the statement of basis); and

(4) Any other documents that support the decision to approve or deny the RAP; and

(c) Make information contained in the administrative record available for review by the public upon request.

§ 270.145 What are the procedures for public comment on the draft RAP or notice of intent to deny?

(a) The Director must:

(1) Send notice to you of his intention to approve or deny your RAP application, and send you a copy of the statement of basis;

(2) Publish a notice of his intention to approve or deny your RAP application in a major local newspaper of general circulation;

(3) Broadcast his intention to approve or deny your RAP application over a local radio station; and

(4) Send a notice of his intention to approve or deny your RAP application to each unit of local government having jurisdiction over the area in which your site is located, and to each State agency having any authority under State law with respect to any construction or operations at the site.

(b) The notice required by paragraph (a) of this section must provide an opportunity for the public to submit written comments on the draft RAP or notice of intent to deny within at least 45 days.

(c) The notice required by paragraph (a) of this section must include:

(1) The name and address of the office processing the RAP application;

(2) The name and address of the RAP applicant, and if different, the remediation waste management site or activity the RAP will regulate;

(3) A brief description of the activity the RAP will regulate;

(4) The name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft RAP or notice of intent to deny, statement of basis, and the RAP application;

(5) A brief description of the comment procedures in this section, and any other procedures by which the public may participate in the RAP decision;

(6) If a hearing is scheduled, the date, time, location and purpose of the hearing;

(7) If a hearing is not scheduled, a statement of procedures to request a hearing;

(8) The location of the administrative record, and times when it will be open for public inspection; and

(9) Any additional information the Director considers necessary or proper.

(d) If, within the comment period, the Director receives written notice of opposition to his intention to approve or deny your RAP application and a request for a hearing, the Director must hold an informal public hearing to discuss issues relating to the approval or denial of your RAP application. The Director may also determine on his
§ 270.150 How will the Director make a final decision on my RAP application?

(a) The Director must consider and respond to any significant comments raised during the public comment period, or during any hearing on the draft RAP or notice of intent to deny, and revise your draft RAP based on those comments, as appropriate.

(b) If the Director determines that your RAP includes the information and terms and conditions required in §270.135, then he will issue a final decision approving your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been approved.

(c) If the Director determines that your RAP does not include the information required in §270.135, then he will issue a final decision denying your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been denied.

(d) If the Director’s final decision is that the tentative decision to deny the RAP application was incorrect, he will withdraw the notice of intent to deny and proceed to prepare a draft RAP, according to the requirements in this subpart.

(e) When the Director issues his final RAP decision, he must refer to the procedures for appealing the decision under §270.155.

(f) Before issuing the final RAP decision, the Director must compile an administrative record. Material readily available at the issuing Regional office or published materials which are generally available and which are included in the administrative record 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 response to comments. The administrative record for the final RAP must include information in the administrative record for the draft RAP (see §270.140(b)) and:

(1) All comments received during the public comment period;
(2) Tapes or transcripts of any hearings;
(3) Any written materials submitted at these hearings;
(4) The responses to comments;
(5) Any new material placed in the record since the draft RAP was issued;
(6) Any other documents supporting the RAP; and (7) A copy of the final RAP.

(g) The Director must make information contained in the administrative record available for review by the public upon request.

§ 270.155 May the decision to approve or deny my RAP application be administratively appealed?

(a) Any commenter on the draft RAP or notice of intent to deny, or any participant in any public hearing(s) on the draft RAP, may appeal the Director’s decision to approve or deny your RAP application to EPA’s Environmental Appeals Board under §124.19 of this chapter. Any person who did not file comments, or did not participate in any public hearing(s) on the draft RAP, may petition for administrative review only to the extent of the changes from the draft to the final RAP decision. Appeals of RAPs may be made to the same extent as for final permit decisions under §124.15 of this chapter (or a decision under §270.29 to deny a permit for the active life of a RCRA hazardous waste management facility or unit). Instead of the notice required under §§124.19(c) and 124.10 of this chapter, the Director will give public notice of any grant of review of RAPs by the Environmental Appeals Board through...
§ 270.175  For what reasons may the Director choose to modify my final RAP?

(a) The Director may modify your final RAP on his own initiative only if one or more of the following reasons listed in this section exist(s). If one or more of these reasons do not exist, then the Director will not modify your final RAP, except at your request. Reasons for modification are:

(1) You made material and substantial alterations or additions to the activity that justify applying different conditions;

(2) The Director finds new information that was not available at the time of RAP issuance and would have justified applying different RAP conditions at the time of issuance;

(3) The standards or regulations on which the RAP was based have changed because of new or amended statutes, standards or regulations, or by judicial decision after the RAP was issued;

(4) If your RAP includes any schedules of compliance, the Director may find reasons to modify your compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which you as the owner/operator have little or no control and for which there is no reasonably available remedy;

(5) You are not in compliance with conditions of your RAP;

(6) You failed in the application or during the RAP issuance process to disclose fully all relevant facts, or you misrepresented any relevant facts at the time;

(7) The Director has determined that the activity authorized by your RAP endangers human health or the environment and can only be remedied by modifying; or
§ 270.180 For what reasons may the Director choose to revoke and reissue my final RAP?

(a) The Director may revoke and reissue your final RAP on his own initiative only if one or more reasons for revocation and reissuance exist(s). If one or more reasons do not exist, then the Director will not modify or revoke and reissue your final RAP, except at your request. Reasons for modification or revocation and reissuance are the same as the reasons listed for RAP modifications in § 270.175(a)(5) through (8) if the Director determines that revocation and reissuance of your RAP is appropriate.

(b) The Director will not reevaluate the suitability of the facility location at the time of RAP modification unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

§ 270.185 For what reasons may the Director choose to terminate my final RAP, or deny my renewal application?

The Director may terminate your final RAP on his own initiative, or deny your renewal application for the same reasons as those listed for RAP modifications in § 270.175(a)(5) through (7) if the Director determines that termination of your RAP or denial of your RAP renewal application is appropriate.

§ 270.190 May the decision to approve or deny a modification, revocation and reissuance, or termination of my RAP be administratively appealed?

(a) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may appeal the Director’s decision to approve a modification, revocation and reissuance, or termination of your RAP, according to § 270.155. Any person who did not file comments or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination, may petition for administrative review only of the changes from the draft to the final RAP decision.

(b) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may informally appeal the Director’s decision to deny a request for modification, revocation and reissuance, or termination to EPA’s Environmental Appeals Board. Any person who did not file comments, or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination may petition for administrative review only of the changes from the draft to the final RAP decision.

(c) The process for informal appeals of RAPs is as follows:

(1) The person appealing the decision must send a letter to the Environmental Appeals Board. The letter must briefly set forth the relevant facts.

(2) The Environmental Appeals Board has 60 days after receiving the letter to act on it.

(3) If the Environmental Appeals Board does not take action on the letter within 60 days after receiving it, the appeal shall be considered denied.

(d) This informal appeal is a prerequisite to seeking judicial review of these EPA actions.

§ 270.195 When will my RAP expire?

RAPs must be issued for a fixed term, not to exceed 10 years, although they may be renewed upon approval by the Director in fixed increments of no more than ten years. In addition, the
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§ 270.200 How may I renew my RAP if it is expiring?

If you wish to renew your expiring RAP, you must follow the process for application for and issuance of RAPs in this subpart.

§ 270.205 What happens if I have applied correctly for a RAP renewal but have not received approval by the time my old RAP expires?

If you have submitted a timely and complete application for a RAP renewal, but the Director, through no fault of yours, has not issued a new RAP with an effective date on or before the expiration date of your previous RAP, your previous RAP conditions continue in force until the effective date of your new RAP or RAP denial.

OPERATING UNDER YOUR RAP

§ 270.210 What records must I maintain concerning my RAP?

You are required to keep records of:
(a) All data used to complete RAP applications and any supplemental information that you submit for a period of at least 3 years from the date the application is signed; and
(b) Any operating and/or other records the Director requires you to maintain as a condition of your RAP.

§ 270.215 How are time periods in the requirements in this subpart and my RAP computed?

(a) Any time period scheduled to begin on the occurrence of an act or event must begin on the day after the act or event. (For example, if your RAP specifies that you must close a staging pile within 180 days after the operating term for that staging pile expires, and the operating term expires on June 1, then June 2 counts as day one of your 180 days, and you would have to complete closure by November 28.)

(b) Any time period scheduled to begin before the occurrence of an act or event must be computed so that the period ends on the day before the act or event. (For example, if you are transferring ownership or operational control of your site, and wish to transfer your RAP, the new owner or operator must submit a revised RAP application no later than 90 days before the scheduled change. Therefore, if you plan to change ownership on January 1, the new owner/operator must submit the revised RAP application no later than October 3, so that the 90th day would be December 31.)

(c) If the final day of any time period falls on a weekend or legal holiday, the time period must be extended to the next working day. (For example, if you wish to appeal the Director's decision to modify your RAP, then you must petition the Environmental Appeals Board within 30 days after the Director has issued the final RAP decision. If the 30th day falls on Sunday, then you may submit your appeal by the Monday after. If the 30th day falls on July 4th, then you may submit your appeal by July 5th.)

(d) Whenever a party or interested person has the right to or is required to act within a prescribed period after the service of notice or other paper upon him by mail, 3 days must be added to the prescribed term. (For example, if you wish to appeal the Director's decision to modify your RAP, then you must petition the Environmental Appeals Board within 30 days after the Director has issued the final RAP decision. However, if the Director notifies you of his decision by mail, then you may have 33 days to petition the Environmental Appeals Board.)

§ 270.220 How may I transfer my RAP to a new owner or operator?

(a) If you wish to transfer your RAP to a new owner or operator, you must follow the requirements specified in your RAP for RAP modification to identify the new owner or operator, and incorporate any other necessary requirements. These modifications do not constitute “significant” modifications for purposes of §270.170. The new owner/operator must submit a revised RAP application no later than 90 days after the transfer of ownership or operational control of your site.
§ 270.225 What must the State or EPA Region report about noncompliance with RAPs?

The State or EPA Region must report noncompliance with RAPs according to the provisions of §270.5.

§ 270.230 May I perform remediation waste management activities under a RAP at a location removed from the area where the remediation wastes originated?

(a) You may request a RAP for remediation waste management activities at a location removed from the area where the remediation wastes originated if you believe such a location would be more protective than the contaminated area or areas in close proximity.

(b) If the Director determines that an alternative location, removed from the area where the remediation waste originated, is more protective than managing remediation waste at the area of contamination or areas in close proximity, then the Director may approve a RAP for this alternative location.

(c) You must request the RAP, and the Director will approve or deny the RAP, according to the procedures and requirements in this subpart.

(d) A RAP for an alternative location must also meet the following requirements, which the Director must include in the RAP for such locations:

1. The RAP for the alternative location must be issued to the person responsible for the cleanup from which the remediation wastes originated.

2. The RAP is subject to the expanded public participation requirements in §§124.31, 124.32, and 124.33 of this chapter.

3. The RAP is subject to the public notice requirements in §124.10(c) of this chapter.

4. The site permitted in the RAP may not be located within 61 meters or 200 feet of a fault which has had displacement in the Holocene time (you must demonstrate compliance with this standard through the requirements in §270.14(b)(11)) (See definitions of terms in §264.18(a) of this chapter).

Note to paragraph (d)(4): Sites located in political jurisdictions other than those listed in Appendix VI of part 264 of this chapter, are assumed to be in compliance with this requirement.

(e) These alternative locations are remediation waste management sites, and retain the following benefits of remediation waste management sites:

1. Exclusion from facility-wide corrective action under §264.101 of this chapter; and

2. Application of §264.1(j) of this chapter in lieu of parts 264, subparts B, C, and D, of this chapter.

Subpart I—Integration with Maximum Achievable Control Technology (MACT) Standards

§ 270.235 Options for incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers and hydrochloric acid production furnaces to minimize emissions from startup, shutdown, and malfunction events.

(a) Facilities with existing permits—(1) Revisions to permit conditions after documenting compliance with MACT. The owner or operator of a RCRA-permitted
incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Director address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to §§264.340(b) and 266.100(b) of this chapter:

(i) **Retain relevant permit conditions.** Under this option, the Director will:

(A) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility’s startup, shutdown, and malfunction plan required under §63.1206(c)(2) of this chapter; and

(B) Limit applicability of those permit conditions only when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) **Revise relevant permit conditions.**

(A) Under this option, the Director will:

1. Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source’s startup, shutdown, and malfunction plan, design, and operating history.

2. Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) **Changes that may significantly increase emissions.** (1) You must notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

2. The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§270.41(a) or 270.42.

(iii) **Remove permit conditions.** Under this option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under §63.1206(c)(2) of this chapter has been approved by the Administrator under §63.1206(c)(2)(i)(B) of this chapter; and

(B) The Director will remove permit conditions that are no longer applicable according to §§264.340(b) and 266.100(b) of this chapter.

(2) **Addressing permit conditions upon permit reissuance.** The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Administrator a Notification of Compliance documenting compliance with the standards of part 63, subpart EEE, of this chapter may request in the application to reissue the permit for the combustion unit that the Director control emissions from startup, shutdown, and malfunction events under any of the following options:

(i) **RCRA option A.** (A) Under this option, the Director will:

1. Include, in the permit, conditions that ensure compliance with §§264.345(a) and 264.345(c) or §§266.102(e)(1) and 266.102(e)(2)(i)(ii) of this chapter to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

2. Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan; or
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(i) RCRA option B. (A) Under this option, the Director will:

(1) Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source’s startup, shutdown, and malfunction plan, design, and operating history; and

(2) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions. (1) You must notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(2) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§ 270.41(a) or 270.42; or

(iii) CAA option. Under this option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter has been approved by the Administrator under § 63.1206(c)(2)(ii)(B) of this chapter; and

(B) The Director will omit from the permit conditions that are not applicable under §§ 264.340(b) and 266.100(b) of this chapter.

(b) Interim status facilities—(1) Interim status operations. In compliance with §§ 265.340 and 266.100(b), the owner or operator of a hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of part 265 or 266 of this chapter may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the Administrator a Notification of Compliance documenting compliance with the standards of part 63, subpart EEE, of this chapter.

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of part 265 or 266 of this chapter relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of part 265 or 266 of this chapter relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Director that the startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter has been approved by the Administrator under § 63.1206(c)(2)(ii)(B) of this chapter.

(2) Operations under a subsequent RCRA permit. When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of parts 265 or 266 of this chapter submits a RCRA permit application, the owner or operator may request that the Director control emissions from startup, shutdown, and malfunction events under any of the options provided by paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(c) New units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to
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RCRA permit requirements after October 12, 2005 must control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

(1) Comply with the requirements specified in §63.1206(c)(2) of this chapter; or

(2) Request to include in the RCRA permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source’s startup, shutdown, and malfunction plan and design. The director will specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.


Subpart J—RCRA Standardized Permits for Storage and Treatment Units

SOURCE: 70 FR 53475, Sept. 8, 2005, unless otherwise noted.

GENERAL INFORMATION ABOUT STANDARDIZED PERMITS

§ 270.250 What is a RCRA standardized permit?

A RCRA standardized permit (RCRA) is a special type of permit that authorizes you to manage hazardous waste. It is issued under 40 CFR part 124, subpart G and subpart J of this part.

§ 270.255 Who is eligible for a standardized permit?

(a) You may be eligible for a standardized permit if:

(1) You generate hazardous waste and then store or non-thermally treat the hazardous waste on-site in containers, tanks, or containment buildings; or

(2) You receive hazardous waste generated off-site by a generator under the same ownership as the receiving facility, and then store or non-thermally treat the hazardous waste in containers, tanks, or containment buildings.

(3) We will inform you of your eligibility when we make a decision on your permit application.

(b) [Reserved]

§ 270.260 What requirements of part 270 apply to a standardized permit?

The following subparts and sections of this part 270 apply to a standardized permit:

(a) Subpart A—General Information: All sections.

(b) Subpart B—Permit Application: §§270.10, 270.11, 270.12, 270.13 and 270.29.

(c) Subpart C—Permit Conditions: All sections.

(d) Subpart D—Changes to Permit: §§270.40, 270.41, and 270.43.

(e) Subpart E—Expiration and Continuation of Permits: All sections.

(f) Subpart F—Special Forms of Permits: §270.67.

(g) Subpart G—Interim Status: All sections.

(h) Subpart H—Remedial Action Plans: Does not apply.

(i) Subpart J—Standardized Permits: All sections.

APPLYING FOR A STANDARDIZED PERMIT

§ 270.270 How do I apply for a standardized permit?

You apply for a standardized permit by following the procedures in 40 CFR part 124, subpart G and this subpart.

§ 270.275 What information must I submit to the permitting agency to support my standardized permit application?

The information in paragraphs (a) through (j) of this section will be the basis of your standardized permit application. You must submit it to the Director when you submit your Notice of Intent under 40 CFR 124.202(b) requesting coverage under a RCRA standardized permit:

(a) The Part A information described in §270.13.

(b) A meeting summary and other materials required by 40 CFR 124.31.

(c) Documentation of compliance with the location standards of 40 CFR 267.18 and §270.14(b)(11).

(d) Information that allows the Director to carry out our obligations under other Federal laws required in §270.3.
§ 270.280 What are the certification requirements?

You must submit a signed certification based on your audit of your facility’s compliance with 40 CFR part 267.

(a) Your certification must read: I certify under penalty of law that:

(1) I have personally examined and am familiar with the report containing the results of an audit conducted of my facility’s compliance status with 40 CFR part 267, which supports this certification. Based on my inquiry of those individuals immediately responsible for conducting the audit and preparing the report, I believe that my existing facility complies with all applicable requirements of 40 CFR part 267 and will continue to comply until the expiration of the permit;

(2) I will continue to make all information required by §§270.290 through 277.315 available until the permit expires. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

(b) You must sign this certification following the requirements of §270.11(a)(1) through (3).

(c) This certification must be based upon an audit that you conduct of your facility’s compliance status with 40 CFR part 267. A written audit report, signed and certified as accurate by the auditor, must be submitted to the Director with the 40 CFR 124.202(b) Notice of Intent.

INFORMATION THAT MUST BE KEPT AT YOUR FACILITY

§ 270.290 What general types of information must I keep at my facility?

You must keep the following information at your facility:

(a) A general description of the facility.

(b) Chemical and physical analyses of the hazardous waste and hazardous debris handled at the facility. At a minimum, these analyses must contain all the information you must know to treat or store the wastes properly under the requirements of 40 CFR part 267.

(c) A copy of the waste analysis plan required by 40 CFR 267.13(b).

(d) A description of the security procedures and equipment required by 40 CFR 267.14.


(f) A justification of any modification of the preparedness and prevention requirements of 40 CFR part 267, subpart C (§§267.30 to 267.35).

(g) A copy of the contingency plan required by 40 CFR part 267, subpart D.

(h) A description of procedures, structures, or equipment used at the facility to:

(1) Prevent hazards in unloading operations (for example, use ramps, special forklifts),
(2) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, with berms, dikes, trenches),

(3) Prevent contamination of water supplies,

(4) Mitigate effects of equipment failure and power outages,

(5) Prevent undue exposure of personnel to hazardous waste (for example, requiring protective clothing), and

(6) Prevent releases to atmosphere,

(i) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required by 40 CFR 267.17.

(j) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes; describe access road surfacing and load bearing capacity; show traffic control signals).

(k) [Reserved]

(l) An outline of both the introductory and continuing training programs you will use to prepare employees to operate or maintain your facility safely as required by 40 CFR 267.16. A brief description of how training will be designed to meet actual job tasks under 40 CFR 267.16(a)(3) requirements.

(m) A copy of the closure plan required by 40 CFR 267.112. Include, where applicable, as part of the plans, specific requirements in 40 CFR 267.176, 267.201, and 267.1108.

(n) [Reserved]

(o) The most recent closure cost estimate for your facility prepared under 40 CFR 267.142 and a copy of the documentation required to demonstrate financial assurance under 40 CFR 267.143. For a new facility, you may gather the required documentation 60 days before the initial receipt of hazardous wastes.

(p) [Reserved]

(q) Where applicable, a copy of the insurance policy or other documentation that complies with the liability requirements of 40 CFR 267.147. For a new facility, documentation showing the amount of insurance meeting the specification of 40 CFR 267.147(a) that you plan to have in effect before initial receipt of hazardous waste for treatment or storage.

(r) Where appropriate, proof of coverage by a State financial mechanism, as required by 40 CFR 267.149 or 267.150.

(s) A topographic map showing a distance of 1,000 feet around your facility at a scale of 1.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). The map must show elevation contours. The contour interval must 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). If your facility is in a mountainous area, you should use large contour intervals to adequately show topographic profiles of facilities. The map must clearly show the following:

(1) Map scale and date.

(2) 100-year flood plain area.

(3) Surface waters including intermittent streams.

(4) Surrounding land uses (residential, commercial, agricultural, recreational).

(5) A wind rose (i.e., prevailing windspeed and direction).

(6) Orientation of the map (north arrow).

(7) Legal boundaries of your facility site.

(8) Access control (fences, gates).

(9) Injection and withdrawal wells both on-site and off-site.

(10) 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.)

(11) Barriers for drainage or flood control.

(12) Location of operational units within your facility, where hazardous waste is (or will be) treated or stored. (Include equipment cleanup areas.)

§ 270.300 What container information must I keep at my facility?

If you store or treat hazardous waste in containers, you must keep the following information at your facility:

(a) A description of the containment system to demonstrate compliance
§ 270.305 What tank information must I keep at my facility?

If you use tanks to store or treat hazardous waste, you must keep the following information at your facility:

(a) A written assessment that is reviewed and certified by an independent, qualified, registered professional engineer on the structural integrity and suitability for handling hazardous waste of each tank system, as required under 40 CFR 267.191 and 267.192.

(b) Dimensions and capacity of each tank.

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).

(d) A diagram of piping, instrumentation, and process flow for each tank system.

(e) A description of materials and equipment used to provide external corrosion protection, as required under 40 CFR 267.191.

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with 40 CFR 267.192 and 267.194.

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of 40 CFR 267.195 and 267.196.

(h) [Reserved]

(i) Description of controls and practices to prevent spills and overflows, as required under 40 CFR 267.198.

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of 40 CFR 267.202 and 267.203.

(k) Information on air emission control equipment as required by § 270.315.

§ 270.310 What equipment information must I keep at my facility?

If your facility has equipment to which 40 CFR part 264, subpart BB applies, you must keep the following information at your facility:

(a) For each piece of equipment to which 40 CFR part 264 subpart BB applies:

(1) Equipment identification number and hazardous waste management unit identification.

(2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

(3) Type of equipment (e.g., a pump or a pipeline valve).

(4) Percent by weight of total organics in the hazardous waste stream at the equipment.

(5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).
(6) Method of compliance with the standard (e.g., monthly leak detection and repair, or equipped with dual mechanical seals).

(b) For facilities that cannot install a closed-vent system and control device to comply with 40 CFR part 264, subpart BB on the effective date that the facility becomes subject to the subpart BB provisions, an implementation schedule as specified in 40 CFR 264.1033(a)(2).

(c) Documentation that demonstrates compliance with the equipment standards in 40 CFR 264.1052 and 264.1059. This documentation must contain the records required under 40 CFR 264.1064.

(d) Documentation to demonstrate compliance with 40 CFR 264.1060 must include the following information:

1. A list of all information references and sources used in preparing the documentation.

2. Records, including the dates, of each compliance test required by 40 CFR 264.1033(j).

3. A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “Course 415: Control of Gaseous Emissions” (incorporated by reference as specified in 40 CFR 260.11) or other engineering texts acceptable to the Director that present basic control device design information. The design analysis must address the vent stream characteristics and control device operation parameters as specified in 40 CFR 264.1035(b)(4)(iii).

4. A statement you signed and dated certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonable expected to occur.

5. A statement you signed and dated certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

§ 270.315 What air emissions control information must I keep at my facility?

If you have air emission control equipment subject to 40 CFR part 264, subpart CC, you must keep the following information at your facility:

(a) Documentation for each floating roof cover installed on a tank subject to 40 CFR 264.1084(d)(1) or (d)(2) that includes information you prepared or the cover manufacturer/vendor provided describing the cover design, and your certification that the cover meets applicable design specifications listed in 40 CFR 264.1086(e)(1) or (f)(1).

(b) Identification of each container area subject to the requirements of 40 CFR part 264, subpart CC and your certification that the requirements of this subpart are met.

(c) Documentation for each enclosure used to control air pollutant emissions from tanks or containers under requirements of 40 CFR 264.1086(d)(5) or 264.1086(e)(1)(ii). You must include records for the most recent set of calculations and measurements you performed to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(d) [Reserved]

(e) Documentation for each closed-vent system and control device installed under requirements of 40 CFR 264.1087 that includes design and performance information as specified in §§270.24 (c) and (d).

(f) An emission monitoring plan for both Method 21 in 40 CFR part 60, appendix A and control device monitoring methods. This plan must include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedences, and procedures for mitigating noncompliances.

Modifying a Standardized Permit

§ 270.320 How do I modify my RCRA standardized permit?

You can modify your RCRA standardized permit by following the procedures found in 40 CFR 124.211 through 124.214.
Subpart A—Requirements for Final Authorization

§ 271.1 Purpose and scope.
(a) This subpart specifies the procedures EPA will follow in approving, revising, and withdrawing approval of State programs and the requirements State programs must meet to be approved by the Administrator under sections 3006(b), (f) and (h) of RCRA.

(b) State submissions for program approval must be made in accordance with the procedures set out in this subpart.

(c) The substantive provisions which must be included in State programs for them to be approved include requirements for permitting, compliance evaluation, enforcement, public participation, and sharing of information. Many of the requirements for State programs are made applicable to States by cross-referencing other EPA regulations. In particular, many of the provisions of parts 270 and 124 are made applicable to States by the references contained in §271.14.

(d) Upon receipt of a complete submission, EPA will conduct a public hearing, if interest is shown, and determine whether to approve or disapprove the program taking into consideration the requirements of this subpart, the Act and any comments received.

(e) The Administrator shall approve State programs which conform to the applicable requirements of this subpart.

(f) Except as provided in §271.3(a)(3), upon approval of a State permitting program, the Administrator shall suspend the issuance of Federal permits for those activities subject to the approved State program.

(g) Any State program approved by the Administrator shall at all times be conducted in accordance with the requirements of this subpart.

(h) Partial State programs are not allowed for programs operating under RCRA final authorization. However, in many cases States will lack authority to regulate activities on Indian lands. This lack of authority does not impair a State’s ability to obtain full program approval in accordance with this subpart, i.e., inability of a State to regulate activities on Indian lands does not constitute a partial program. EPA will administer the program on Indian lands if the State does not seek this authority.

NOTE: States are advised to contact the United States Department of the Interior, Bureau of Indian Affairs, concerning authority over Indian lands.
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(1) Except as provided in §271.4, nothing in this subpart precludes a State from:

(1) Adopting or enforcing requirements which are more stringent or more extensive than those required under this subpart;

(2) Operating a program with a greater scope of coverage than that required under this subpart; Where an approved State program has a greater scope of coverage than required by Federal law, the additional coverage is not part of the Federally approved program.

(1) Requirements and prohibitions which are applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which are imposed pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA) include any requirement or prohibition which has taken effect under HSWA, as such:

(1) All regulations specified in Table 1, and

(2) The self-implementing statutory provisions specified in Table 2 that have taken effect.

NOTE: See §§264.1(f)(3), 265.1(e)(4)(ii), 271.3(b), 271.21(e)(2) and 271.121(c)(3) for applicability.

### Table 1—Regulations Implementing the Hazardous and Solid Waste Amendments of 1984

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<tr>
<th>Promulgation date</th>
<th>Title of regulation</th>
<th>Federal Register reference</th>
<th>Effective date</th>
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<tbody>
<tr>
<td>Nov. 29, 1985</td>
<td>Standards for the management of the burning of specific wastes in specific types of facilities.</td>
<td>50 FR 49164–212</td>
<td>Dec. 9, 1985.</td>
</tr>
<tr>
<td>Nov. 7, 1986</td>
<td>Land disposal restrictions for solvents and dioxins</td>
<td>51 FR 40572</td>
<td>Nov. 8, 1986.</td>
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### Table 1—Regulations Implementing the Hazardous and Solid Waste Amendments of 1984—Continued

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<tbody>
<tr>
<td>June 22, 1992</td>
<td>Exclusion from the definition of solid waste for the recycling of hazardous wastes in the coke by-products industry.</td>
<td>57 FR 27888</td>
<td>June 22, 1992</td>
</tr>
<tr>
<td>Aug. 18, 1992</td>
<td>Land disposal restrictions for newly listed wastes in §268.36 (b)(g).</td>
<td>57 FR 37282</td>
<td>June 30, 1992</td>
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<td>Do</td>
<td>Land disposal restrictions for newly listed wastes in §268.36(a), hazardous debris, and generic exclusion for K062 and F006 nonwaste-waters.</td>
<td>Do</td>
<td>Nov. 9, 1992</td>
</tr>
<tr>
<td>Aug. 18, 1992</td>
<td>The listing of wastes from the production, recovery, and refining of coke by-products produced from coal.</td>
<td>57 FR 37306</td>
<td>Feb. 18, 1993</td>
</tr>
<tr>
<td>Oct. 15, 1992</td>
<td>Listing Wastes from the Production of Chlorinated Toluenes.</td>
<td>57 FR 47386</td>
<td>Apr. 15, 1993</td>
</tr>
<tr>
<td>Nov. 18, 1992</td>
<td>Containerized Liquids in Landfills</td>
<td>57 FR 54461</td>
<td>May 18, 1992</td>
</tr>
<tr>
<td>Nov. 21, 1992</td>
<td>Toxicity Characteristic Revision</td>
<td>57 FR 55117</td>
<td>Nov. 24, 1992</td>
</tr>
<tr>
<td>May 24, 1993</td>
<td>Land disposal restrictions for characteristic wastes whose treatment standards were vacated.</td>
<td>58 FR 29887</td>
<td>Aug. 9, 1993</td>
</tr>
<tr>
<td>Nov. 9, 1993</td>
<td>Burning of hazardous waste in boilers and industrial furnaces.</td>
<td>58 FR 59603</td>
<td>Oct. 15, 1993</td>
</tr>
<tr>
<td>Feb. 9, 1995</td>
<td>Listing Wastes from the Production of Carbamates</td>
<td>60 FR 7856</td>
<td>Aug. 9, 1995</td>
</tr>
<tr>
<td>July 11, 1995</td>
<td>Containerized Liquids in Landfills</td>
<td>60 FR 35706</td>
<td>Sept. 11, 1995</td>
</tr>
<tr>
<td>July 1, 1996</td>
<td>Revisions to Criteria applicable to solid waste facilities that may accept CESQG hazardous wastes, excluding MSWLF's.</td>
<td>61 FR 34278</td>
<td>Jan. 1, 1998</td>
</tr>
<tr>
<td>June 17, 1997</td>
<td>Vacated Carbamate wastes</td>
<td>62 FR 32379</td>
<td>Aug. 9, 1995</td>
</tr>
<tr>
<td>May 4, 1998</td>
<td>Listing of Organobromine Production Wastes</td>
<td>63 FR 24827</td>
<td>Nov. 4, 1998</td>
</tr>
<tr>
<td>Nov. 30, 1998</td>
<td>Hazardous Remediation Waste Management Requirements.</td>
<td>63 FR 65947</td>
<td>June 1, 1999</td>
</tr>
</tbody>
</table>

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### TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

<table>
<thead>
<tr>
<th>Promulgation date</th>
<th>Title of regulation</th>
<th>FEDERAL REGISTER reference</th>
<th>Effective date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management Unit ........</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 These regulations implement HSWA only to the extent that they apply to tank systems owned or operated by small quantity generators, establish leak detection requirements for all new underground tank systems, and establish permitting standards for underground tank systems that cannot be entered for inspection.
2 These regulations, including test methods for benzo(k)fluoranthene and technical standards for drip pads, implement HSWA only to the extent that they apply to the listing of Hazardous Waste No. F032, and wastes that are hazardous because they exhibit the Toxicity Characteristic. These regulations, including test methods for benzo(k)fluoranthene and technical standards for drip pads, do not implement HSWA to the extent that they apply to the listings of Hazardous Waste Nos. F034 and F035.
3 The following portions of this rule are not HSWA regulations: §§260.19 and 265.19 for final covers.
4 The following portions of this rule are not HSWA regulations: §§260.30, 260.31, 261.2.
5 These regulations implement HSWA only to the extent that they apply to the standards for staging piles and to §§264.1(j) and 264.101(d) of this chapter.

### TABLE 2—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

<table>
<thead>
<tr>
<th>Effective date</th>
<th>Self-implementing provision</th>
<th>RCRA citation</th>
<th>FEDERAL REGISTER reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do ............</td>
<td>Waste disposal for small quantity generators prior to March 31, 1986.</td>
<td>3001(d)(5) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Prohibition of disposal in salt domes, salt beds and underground mines and caves.</td>
<td>3004(b) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Land disposal prohibition not applicable to contaminated soil or debris from a CERCLA response action or a RCRA corrective action prior to November 8, 1986.</td>
<td>3004(d)(3) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Loss of interim status ..........</td>
<td>3005(c)(2)(C) &amp; (e)(2)-(3) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Storage of wastes prohibited from land disposal ..........</td>
<td>3004(i) &amp; 3005(j)(11) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Prohibition of waste and used oil as dust suppressant ..........</td>
<td>3004(i) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Minimum technological requirements for new and expanding surface impoundments, landfills and incinerators.</td>
<td>3004(p) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Ground water monitoring ..........</td>
<td>3004(g) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Prohibition for burning fuels containing hazardous waste in any cement kilns.</td>
<td>3004(q)(2)(C) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Financial responsibility for liability of guarantor when owner/operator is in bankruptcy.</td>
<td>3004(u) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Corrective action ..........</td>
<td>3005(c)(2) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Review of land disposal permits every 5 years ......</td>
<td>3005(c)(3) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Permit terms and conditions necessary to protect human health and the environment.</td>
<td>3005(c)(3) .......</td>
<td>Do.</td>
</tr>
<tr>
<td>Do ............</td>
<td>Research, development, and demonstration permits ..........</td>
<td>3005(g) .......</td>
<td>Do.</td>
</tr>
</tbody>
</table>
## Table 2—Self-Implementing Provisions of the Hazardous and Solid Waste Amendments of 1984—Continued

<table>
<thead>
<tr>
<th>Effective date</th>
<th>Self-implementing provision</th>
<th>RCRA citation</th>
<th>FEDERAL REGISTER reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do</td>
<td>Interim status facilities receiving waste after July 26, 1982.</td>
<td>3005(i)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Deadline for surface impoundment retrofit exemption application.</td>
<td>3005(g)(5)</td>
<td>Do.</td>
</tr>
<tr>
<td>Feb. 7, 1985</td>
<td>Fuel labeling requirements</td>
<td>3004(r)</td>
<td>Do.</td>
</tr>
<tr>
<td>May 8, 1985</td>
<td>Prohibition of liquids in landfills.</td>
<td>3004(c)(1)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Expansions during interim status for waste piles</td>
<td>3015(a)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Expansions during interim status for landfills and surface impoundments.</td>
<td>3015(b)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Interim control of hazardous waste disposed of by underground injection.</td>
<td>7010(a)</td>
<td>Do.</td>
</tr>
<tr>
<td>Aug. 5, 1985</td>
<td>Small quantity generator manifest requirements.</td>
<td>3001(d)(3)</td>
<td>Do.</td>
</tr>
<tr>
<td>Aug. 8, 1985</td>
<td>Exposure assessments to accompany landfill and surface impoundment permit applications.</td>
<td>3019(a)</td>
<td>Do.</td>
</tr>
<tr>
<td>Sept. 1, 1985</td>
<td>Waste minimization certification on manifest.</td>
<td>3002(b)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Waste minimization permit condition.</td>
<td>3005(h)</td>
<td>Do.</td>
</tr>
<tr>
<td>Nov. 8, 1985</td>
<td>Prohibition of non-hazardous liquids in landfills.</td>
<td>3004(c)(3)</td>
<td>Do.</td>
</tr>
<tr>
<td>Do</td>
<td>Notification of hazardous waste export.</td>
<td>3017(c)</td>
<td>Do.</td>
</tr>
<tr>
<td>Nov. 8, 1986</td>
<td>Land disposal prohibitions on dioxins and F001–F005 solvents.</td>
<td>3004(e)</td>
<td>Nov. 7, 1986, 51 FR 40572.</td>
</tr>
<tr>
<td>July 8, 1987</td>
<td>Land disposal restrictions for California list wastes</td>
<td>3004(d)</td>
<td>July 8, 1987, 52 FR 25760.</td>
</tr>
<tr>
<td>Nov. 8, 1988</td>
<td>Prohibition on wastes in existing surface impoundments unless double lined.</td>
<td>3005(j)</td>
<td>Do.</td>
</tr>
<tr>
<td>Nov. 9, 1992</td>
<td>Prohibition on land disposal of hazardous debris and newly listed wastes.</td>
<td>3004(g)(6)(c)</td>
<td>Aug. 18, 1992, 57 FR 37282.</td>
</tr>
<tr>
<td>Aug. 9, 1993</td>
<td>Prohibition on land disposal of characteristic wastes whose treatment standards were vacated.</td>
<td>3004(g)(6)(c)</td>
<td>May 24, 1993, 58 FR 29887.</td>
</tr>
<tr>
<td>Sept. 19, 1995</td>
<td>Establishment of treatment standards for D001 and D012–D017 wastes injected into nonhazardous deep wells.</td>
<td>3004(m)</td>
<td>Do.</td>
</tr>
<tr>
<td>Apr. 8, 1996</td>
<td>Prohibition on land disposal of K088 wastes</td>
<td>3004(m)</td>
<td>Apr. 8, 1996, 61 FR 15660.</td>
</tr>
<tr>
<td>July 8, 1996</td>
<td>Prohibition on land disposal of carbamate wastes</td>
<td>3004(m)</td>
<td>Apr. 8, 1996, 61 FR 15660.</td>
</tr>
<tr>
<td>Sept. 6, 1996</td>
<td>Prohibition on land disposal of radioactive waste mixed with the newly listed or identified wastes, including soil and debris.</td>
<td>3004(g)(4)(C) and 3004(m)</td>
<td>Sept. 19, 1994, 59 FR 47982–48110.</td>
</tr>
</tbody>
</table>

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### Table 2—Self-Implementing Provisions of the Hazardous and Solid Waste Amendments of 1984—Continued

<table>
<thead>
<tr>
<th>Effective date</th>
<th>Self-implementing provision</th>
<th>RCRA citation</th>
<th>Federal Register reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 11, 1997</td>
<td>Prohibition on land disposal of wood preserving wastes</td>
<td>3004(g)(4)(c) and 3004(m)</td>
<td>May 12, 1997, 62 FR 26040.</td>
</tr>
<tr>
<td>Apr. 8, 1998</td>
<td>Prohibition on disposal of radioactive waste mixed with newly listed or identified wastes, including soil and debris (Vacated carbamate wastes).</td>
<td>3004(g)(4)(c) and 3004(m)</td>
<td>June 17, 1997, 62 FR 32979.</td>
</tr>
<tr>
<td>Aug. 24, 1998</td>
<td>Prohibition on land disposal of newly identified wastes, including TC metal wastes and characteristic mineral processing wastes; treatment standards for contaminated soil.</td>
<td>3004(m)</td>
<td>May 26, 1998, 63 FR 28753.</td>
</tr>
<tr>
<td>Sept. 21, 1998</td>
<td>Prohibition on land disposal of K088 wastes, and prohibition on land disposal of radioactive waste mixed with K088 wastes, including soil and debris.</td>
<td>3004(g)(4)(C) and 3004(m)</td>
<td>Sept. 24, 1998, 63 FR 42188.</td>
</tr>
<tr>
<td>Nov. 4, 1998</td>
<td>Prohibition on land disposal of newly listed and identified wastes</td>
<td>3004(m) and 3004(g)(4)(c)</td>
<td>Mar. 17, 2000, 65 FR 14475.</td>
</tr>
<tr>
<td>Nov. 4, 1998</td>
<td>Prohibition on land disposal of radioactive waste mixed with the newly listed and identified wastes, including soil and debris</td>
<td>3004(m)</td>
<td>May 26, 1998, 63 FR 28753.</td>
</tr>
<tr>
<td>Nov. 4, 1998</td>
<td>Prohibition on land disposal of radioactive waste mixed with the newly listed and identified wastes, including soil and debris (Vacated organobromine wastes).</td>
<td>3004(m)</td>
<td>Aug. 6, 1998, 63 FR 42188.</td>
</tr>
<tr>
<td>Feb. 8, 1999</td>
<td>Prohibition on land disposal of newly listed and identified wastes, including soil and debris</td>
<td>3004(m)</td>
<td>May 12, 1997, 62 FR 26040.</td>
</tr>
<tr>
<td>May 26, 2000</td>
<td>Prohibition on land disposal of newly identified wastes from elemental phosphorus processing and mixed radioactive and newly identified TC metal/mineral processing wastes (including soil and debris)</td>
<td>3004(m)</td>
<td>May 26, 1998, 63 FR 28753.</td>
</tr>
<tr>
<td>May 7, 2001</td>
<td>Prohibition on land disposal of K174 and K175 wastes, and prohibition on land disposal of radioactive waste mixed with K174 and K175 wastes, including soil and debris.</td>
<td>3004(g)(4)(C) and 3004(m)</td>
<td>Nov. 8, 2000, 65 FR 67132.</td>
</tr>
<tr>
<td>May 20, 2002</td>
<td>Prohibition on land disposal of K176, K177, and K178 wastes, and prohibition on land disposal of radioactive waste mixed with K176, K177, and K178 wastes, including soil and debris.</td>
<td>3004(g)(4)(C) and 3004(m)</td>
<td>Nov. 20, 2002, 66 FR 28299.</td>
</tr>
<tr>
<td>Aug. 23, 2005</td>
<td>Prohibition on land disposal of K181 waste, and prohibition on land disposal of radioactive waste mixed with K181 waste, including soil and debris.</td>
<td>3004(g)(4)(C) and 3004(m)</td>
<td>Feb. 24, 2005, 70 FR 32979.</td>
</tr>
<tr>
<td>July 7, 2010</td>
<td>Exports of hazardous waste</td>
<td>3017(a)</td>
<td>75 FR 1262</td>
</tr>
<tr>
<td>August 12, 2011</td>
<td>Land Disposal Restrictions: Revision of the Treatment Standards for Carbamate Hazardous Wastes.</td>
<td>3004(m)</td>
<td>76 FR [Insert Page Numbers]</td>
</tr>
</tbody>
</table>

1 Note that the effective date was changed to Jan. 29, 1986 by the Nov. 29, 1985 rule.
2 Note that the effective date was changed to Sept. 22, 1986 by the Mar. 24, 1986 rule.

[48 FR 14248, Apr. 1, 1983]

Editorial Note: For Federal Register citations affecting §271.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.
§ 271.2 Definitions.

The definitions in part 270 apply to all subparts of this part.

§ 271.3 Availability of final authorization.

(a) Where a State program meets the requirements of section 3006 of RCRA and this subpart it may receive authorization for any provision of its program corresponding to a Federal provision in effect on the date of the State’s authorization.

(b) States approved under this subpart are authorized to administer and enforce their hazardous waste program in lieu of the Federal program, except as provided below:

(1) Any requirement or prohibition which is applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which is imposed pursuant to the Hazardous and Solid Waste Amendments of 1984 takes effect in each State having a finally authorized State program on the same date as such requirement takes effect in other States. These requirements and prohibitions are identified in §271.1(j).

(2) The requirements and prohibitions in §271.1(j) supersede any less stringent provision of a State program. The Administrator is authorized to carry out each such Federal requirement and prohibition in an authorized State except where, pursuant to section 3006(b) or 3006(g)(2) of RCRA, the State has received final or interim authorization to carry out the particular requirement or prohibition. Violations of Federal requirements and prohibitions effective in authorized States are enforceable under sections 3008, 3013 and 7003 of RCRA.

(3) Until an authorized State program is revised to reflect the amendments made by the Hazardous and Solid Waste Amendments of 1984 and such program revisions receive final or interim authorization pursuant to section 3006(b) or 3006(g)(2) of RCRA, the Administrator shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984.

(c) Official State applications for final authorization may be reviewed on the basis of Federal self-implementing statutory provisions that were in effect 12 months prior to the State’s submission of its official application (if no implementing regulations have previously been promulgated) and the regulations in 40 CFR parts 124, 260–266, 268, 270 and 271 that were in effect 12 months prior to the State’s submission of its official application. To meet this requirement the State may demonstrate that its program qualifies for final authorization pursuant to this subpart or interim authorization under §271.24. States are not precluded from seeking authorization for requirements taking effect less than 12 months prior to the State’s submittal of its final application.


§ 271.4 Consistency.

To obtain approval, a State program must be consistent with the Federal program and State programs applicable in other States and in particular must comply with the provisions below. For purposes of this section the phrase “State programs applicable in other States” refers only to those State hazardous waste programs which have received final authorization under this part.

(a) Any aspect of the State program which unreasonably restricts, impedes, or operates as a ban on the free movement across the State border of hazardous wastes from or to other States for treatment, storage, or disposal at facilities authorized to operate under the Federal or an approved State program shall be deemed inconsistent.

(b) Any aspect of State law or of the State program which has no basis in human health or environmental protection and which acts as a prohibition on the treatment, storage or disposal of hazardous waste in the State may be deemed inconsistent.

(c) If the State manifest system does not meet the requirements of this part, the State program shall be deemed inconsistent.

48 FR 14248, Apr. 1, 1983; 48 FR 30114, June 30, 1983
§ 271.5 Elements of a program submission.

(a) Any State that seeks to administer a program under this part shall submit to the Administrator at least three copies of a program submission. The submission shall contain the following:

(1) A letter from the Governor of the State requesting program approval;
(2) A complete program description, as required by §271.6 describing how the State intends to carry out its responsibilities under this subpart;
(3) An Attorney General’s statement as required by §271.7;
(4) A Memorandum of Agreement with the Regional Administrator as required by §271.8;
(5) Copies of all applicable State statutes and regulations, including those governing State administrative procedures; and
(6) The showing required by §271.20(c) of the State’s public participation activities prior to program submission.

(b) Within 30 days of receipt by EPA of a State program submission, EPA will notify the State whether its submission is complete. If EPA finds that a State’s submission is complete, the statutory review period (i.e., the period of time allotted for formal EPA review of a proposed State program under section 3006(b) of the Act) shall be deemed to have begun on the date of receipt of the State’s submission. If EPA finds that a State’s submission is incomplete, the review period shall not begin until all necessary information is received by EPA.

(c) If the State’s submission is materially changed during the review period, the review period shall begin again upon receipt of the revised submission.

(d) The State and EPA may extend the review period by agreement.

§ 271.6 Program description.

Any State that seeks to administer a program under this subpart shall submit a description of the program it proposes to administer in lieu of the Federal program under State law or under an interstate compact. The program description shall include:

(a) A description in narrative form of the scope, structure, coverage and processes of the State program.
(b) A description (including organization charts) of the organization and structure of the State agency or agencies which will have responsibility for administering the program, including the information listed below. If more than one agency is responsible for administration of a program, each agency must have statewide jurisdiction over a class of activities. The responsibilities of each agency must be delineated, their procedures for coordination set forth, and an agency must be designated as a “lead agency” to facilitate communications between EPA and the State agencies having program responsibilities. When the State proposes to administer a program of greater scope of coverage than is required by Federal law, the information provided under this paragraph shall indicate the resources dedicated to administering the Federally required portion of the program.

(1) A description of the State agency staff who will carry out the State program, including the number, occupations, and general duties of the employees. The State need not submit complete job descriptions for every employee carrying out the State program.

(2) An itemization of the estimated costs of establishing and administering the program, including cost of the personnel listed in paragraph (b)(1) of this section, cost of administrative support, and cost of technical support. This estimate must cover the first two years after program approval.

(3) An itemization of the sources and amounts of funding, including an estimate of Federal grant money, available to the State Director to meet the costs listed in paragraph (b)(2) of this section, identifying any restrictions or limitations upon this funding. This estimate must cover the first two years after program approval.

(c) A description of applicable State procedures, including permitting procedures and any State administrative or judicial review procedures.

(d) Copies of the permit form(s), application form(s), and reporting form(s)
§ 271.7 Attorney General’s statement.

(a) Any State that seeks to administer a program under this subpart shall submit a statement from the State Attorney General (or the attorney for those State agencies which have independent legal counsel) that the laws of the State provide adequate authority to carry out the program described under §271.6 and to meet the requirements of this subpart. This statement shall include citations to the specific statutes, administrative regulations, and, where appropriate, judicial decisions which demonstrate adequate authority. State statutes and regulations cited by the State Attorney General or independent legal counsel shall be in the form of lawfully adopted State statutes and regulations at the time the statement is signed and shall be fully effective by the time the program is approved. To qualify as “independent legal counsel” the attorney signing the statement required by this section must have full authority to independently represent the State agency in court on all matters pertaining to the State program.

Note: EPA will supply States with an Attorney General’s statement format on request.

(b) When a State seeks authority over activities on Indian lands, the statement shall contain an appropriate analysis of the State’s authority.

§ 271.8 Memorandum of Agreement with the Regional Administrator.

(a) Any State that seeks to administer a program under this subpart shall submit a Memorandum of Agreement (MOA). The Memorandum of Agreement shall be executed by the State Director and the Regional Administrator and shall become effective when approved by the Administrator. In addition to meeting the requirements of paragraph (b) of this section, the Memorandum of Agreement may include other terms, conditions, or agreements consistent with this subpart and relevant to the administration and enforcement of the State’s regulatory program. The Administrator shall not approve any Memorandum of Agreement which contains provisions which restrict EPA’s statutory oversight responsibility.

(b) All Memoranda of Agreement shall include the following:

(1) Provisions for the Regional Administrator to promptly forward to the State Director information obtained prior to program approval in notifications provided under section 3010(a) of RCRA. The Regional Administrator and the State Director shall agree on procedures for the assignment of EPA identification numbers for new generators, transporters, treatment, storage, and disposal facilities.
(2) Provisions specifying the frequency and content of reports, documents and other information which the State is required to submit to EPA. The State shall allow EPA to routinely review State records, reports, and files relevant to the administration and enforcement of the approved program. State reports may be combined with grant reports where appropriate.

(3) Provisions on the State’s compliance monitoring and enforcement program, including:

(i) Provisions for coordination of compliance monitoring activities by the State and by EPA. These may specify the basis on which the Regional Administrator will select facilities or activities within the State for EPA inspection. The Regional Administrator will normally notify the State at least 7 days before any such inspection; and

(ii) Procedures to assure coordination of enforcement activities.

(4) Provisions allowing EPA to conduct compliance inspections of all generators, transporters, and HWM facilities in each year for which the State is operating under final authorization. The Regional Administrator and the State Director may agree to limitations on compliance inspections of generators, transporters, and non-major HWM facilities.

(5) No limitations on EPA compliance inspections of generators, transporters, or non-major HWM facilities under paragraph (b)(4) of this section shall restrict EPA’s right to inspect any generator, transporter, or HWM facility which it has cause to believe is not in compliance with RCRA; however, before conducting such an inspection, EPA will normally allow the State a reasonable opportunity to conduct a compliance evaluation inspection.

(6) Provisions for the prompt transfer from EPA to the State of pending permit applications and any other information relevant to program operation not already in the possession of the State Director (e.g., support files for permit issuance, compliance reports, etc.). When existing permits are transferred from EPA to the State for administration, the Memorandum of Agreement shall contain provisions specifying a procedure for transferring the administration of these permits. If a State lacks the authority to directly administer permits issued by the Federal government, a procedure may be established to transfer responsibility for these permits.

(7) Provisions specifying classes and categories of permit applications, draft permits, and proposed permits that the State will send to the Regional Administrator for review, comment and, where applicable, objection.

(8) When appropriate, provisions for joint processing of permits by the State and EPA, for facilities or activities which require permits from both EPA and the State under different programs. See §124.4

Note: To promote efficiency and to avoid duplication and inconsistency, States are encouraged to enter into joint processing agreements with EPA for permit issuance.

(9) Provisions for the State Director to promptly forward to EPA copies of draft permits and permit applications for all major HWM facilities for review and comment. The Regional Administrator and the State Director may agree to limitations regarding review of and comment on draft permits and/or permit applications for non-major HWM facilities. The State Director shall supply EPA copies of final permits for all major HWM facilities.

(10) Provisions for the State Director to review all permits issued under State law prior to the date of program approval and modify or revoke and reissue them to require compliance with the requirements of this subpart. The Regional Administrator and the State Director shall establish a time within which this review must take place.

(11) Provisions for modification of the Memorandum of Agreement in accordance with this subpart.

(c) The Memorandum of Agreement, the annual program grant and the State/EPA Agreement should be consistent. If the State/EPA Agreement indicates that a change is needed in the Memorandum of Agreement, the Memorandum of Agreement may be amended through the procedures set forth in this subpart. The State/EPA
Agreement may not override the Memorandum of Agreement.

NOTE: Detailed program priorities and specific arrangements for EPA support of the State program will change and are therefore more appropriately negotiated in the context of annual agreements rather than in the MOA. However, it may still be appropriate to specify in the MOA the basis for such detailed agreements, e.g., a provision in the MOA specifying that EPA will select facilities in the State for inspection annually as part of the State/EPA agreement.

§ 271.9 Requirements for identification and listing of hazardous wastes.

(a) The State program must control all the hazardous wastes controlled under 40 CFR part 261 and must adopt a list of hazardous wastes and set of characteristics for identifying hazardous wastes equivalent to those under 40 CFR part 261.

(b) The State is not required to have a delisting mechanism. A State may receive authorization for delisting if the State regulations for delisting decisions are equivalent to § 260.20(b) and § 290.22, and the State provides public notice and opportunity for comment before granting or denying delisting requests.

[51 FR 33721, Sept. 22, 1986]

§ 271.10 Requirements for generators of hazardous wastes.

(a) The State program must cover all generators covered by 40 CFR part 262. States must require new generators to contact the State and obtain an EPA identification number before they perform any activity subject to regulation under the approved State hazardous waste program.

(b) The State shall have authority to require and shall require all generators to comply with reporting and recordkeeping requirements equivalent to those under 40 CFR 262.40 and 262.41. States must require that generators keep these records at least 3 years. States that choose to receive electronic documents must include the requirements of 40 CFR Part 3—(Electronic reporting) in their Program (except that states that choose to receive electronic manifests and/or permit the use of electronic manifests must comply with any applicable requirements for e-manifest in this section of this section).

(c) The State program must require that generators who accumulate hazardous wastes for short periods of time comply with requirements that are equivalent to the requirements for accumulating hazardous wastes for short periods of time under 40 CFR 262.34.

(d) The State program must require that generators comply with requirements that are equivalent to the requirements for the packaging, labeling, marking, and placarding of hazardous waste under 40 CFR 262.30 to 262.33, and are consistent with relevant DOT regulations under 49 CFR parts 172, 173, 178 and 179.

(e) The State program shall provide requirements respecting international shipments which are equivalent to those at 40 CFR part 262 subparts E and F, except that:

(1) Advance notification, annual reports and exception reports in accordance with 40 CFR 262.53, 262.55 and 262.56 shall be filed with the Administrator; States may require that copies of the documents referenced also be filed with the State Director; and

(2) The Administrator will notify foreign countries of intended exports in conjunction with the Department of State and primary exporters of foreign countries’ responses in accordance with 40 CFR 262.53.

NOTE: Such notices shall be mailed to the Office of Waste Programs Enforcement, RCRA Enforcement Division (OS-520), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

(f) The State must require that all generators of hazardous waste who transport (or offer for transport) such hazardous waste off-site:

(1) Use a manifest system that ensures that interstate and intrastate shipments of hazardous waste are designated for delivery and, in the case of intrastate shipments, are delivered to facilities that are authorized to operate under an approved State program or the federal program. The manifest system must require the use of the manifest format as required by §262.20(a). No other manifest form, shipping document, or information, other than that required by federal law, may be required by the State to travel with the shipment.
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§ 271.11 Requirements for transporters of hazardous wastes.

(a) The State program must cover all transporters covered by 40 CFR part 263. New transporters must be required to contact the State and obtain an EPA identification number from the State before they accept hazardous waste for transport.

(b) The State shall have authority to require and shall require all transporters to comply with reporting and recordkeeping requirements equivalent to those under 40 CFR 263.22. States must require that transporters keep these records at least 3 years. States that choose to receive electronic documents must include the requirements of 40 CFR Part 3—(Electronic reporting) in their Program (except that states that choose to receive electronic manifests and/or permit the use of electronic manifests must comply with any applicable requirements for e-manifest in this section of this section).

(c)(1) The State must require transporters to carry the manifest during transport, except in the case of shipments by rail or water, transporters may carry a shipping paper, as specified in 40 CFR 263.20(e) and (f):

(2) The State must require the transporter to deliver waste only to the facility designated on the manifest, which in the case of return shipments of rejected wastes or regulated container residues, may also include the original generator of the waste shipment.

(3) The State program must provide requirements for shipments by rail or water equivalent to those under 40 CFR 263.20(e) and (f).

(4) For exports of hazardous waste, the state must require the transporter to refuse to accept hazardous waste for export if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent, to carry an EPA Acknowledgment of Consent to 40 CFR Part 262 which is promulgated after July 1, 1984.

§ 271.12 Requirements for hazardous waste management facilities.

The State shall have standards for hazardous waste management facilities which are equivalent to 40 CFR parts 264 and 266. These standards shall include:

(a) Technical standards for tanks, containers, waste piles, incineration, chemical, physical and biological treatment facilities, surface impoundments, landfills, and land treatment facilities;

(b) Financial responsibility during facility operation;

(c) Preparedness for and prevention of discharges or releases of hazardous waste; contingency plans and emergency procedures to be followed in the event of a discharge or release of hazardous waste;

(d) Closure and post-closure requirements including financial requirements to ensure that money will be available for closure and post-closure monitoring and maintenance;

(e) Groundwater monitoring;

(f) Security to prevent unauthorized access to the facility;

(g) Facility personnel training;

(h) Inspections, monitoring, record-keeping, and reporting. States that choose to receive electronic documents must include the requirements of 40 CFR Part 3—(Electronic reporting) in their Program (except that states that choose to receive electronic manifests and/or permit the use of electronic manifests must comply with paragraph (i) of this section);

(i) Compliance with the manifest system including the requirement that facility owners or operators return a signed copy of the manifest:

(1) To the generator to certify delivery of the hazardous waste shipment or to identify discrepancies; and

(2) To EPA's International Compliance Assurance Division program, at the address referenced in 40 CFR 264.71(a)(3) and 265.71(a)(3), to indicate the receipt of a shipment of hazardous waste imported into the U.S. from a foreign source.

(j) Other requirements to the extent that they are included in 40 CFR parts 264 and 266.


§ 271.13 Requirements with respect to permits and permit applications.

(a) State law must require permits for owners and operators of all hazardous waste management facilities required to obtain a permit under 40 CFR part 270 and prohibit the operation of any hazardous waste management facility without such a permit, except that States may, if adequate legal authority exists, authorize owners and operators of any facility which would qualify for interim status under the Federal program to remain in operation until a final decision is made on the permit application, or until interim status terminates pursuant to 40 CFR 270.73 (b) through (f). When State law authorizes such continued operation it shall require compliance by owners and operators of such facilities with standards at least as stringent as EPA’s interim status standards at 40 CFR part 265.

(b) The State must require all new HWM facilities to contact the State...
and obtain an EPA identification number before commencing treatment, storage, or disposal of hazardous waste.

(c) All permits issued by the State shall require compliance with the standards adopted by the State under §271.12.

(d) All permits issued under State law prior to the date of approval of final authorization shall be reviewed by the State Director and modified or revoked and reissued to require compliance with the requirements of this part.


§ 271.14 Requirements for permitting.

All State programs under this subpart must have legal authority to implement each of the following provisions and must be administered in conformance with each; except that States are not precluded from omitting or modifying any provisions to impose more stringent requirements:

(a) Section 270.1(c)(1)—(Specific inclusions);
(b) Section 270.4—(Effect of permit);
(c) Section 270.5—(Noncompliance reporting);
(d) Section 270.10—(Application for a permit);
(e) Section 270.11—(Signatories);
(f) Section 270.12—(Confidential information);
(g) Section 270.13—(Contents of part A);
(h) Sections 270.14 through 270.29—(Contents of part B);

NOTE: States need not use a two part permit application process. The State application process must, however, require information in sufficient detail to satisfy the requirements of §§270.13 through 270.29.

(i) Section 270.30—(Applicable permit conditions);
(j) Section 270.31—(Monitoring requirements);
(k) Section 270.32—(Establishing permit conditions);
(l) Section 270.33—(Schedule of compliance);
(m) Section 270.40—(Permit transfer);
(n) Section 270.41—(Permit modification);
(o) Section 270.43—(Permit termination);
(p) Section 270.50—(Duration);
(q) Section 270.60—(Permit by rule);
(r) Section 270.61—(Emergency permits);
(s) Section 270.64—(Interim permits for UIC wells);
(t) Section 124.3(a)—(Application for a permit);
(u) Section 124.5 (a), (c), (d)—(Modification of permits);
(v) Section 124.6 (a), (d), and (e)—(Draft permit);
(w) Section 124.8—(Fact sheets);
(x) Section 124.10 (a)(1)(ii), (a)(1)(iii), (a)(1)(v), (b), (c), (d), and (e)—(Draft notice);
(y) Section 124.11—(Public comments and requests for hearings);
(z) Section 124.12(a)—(Public hearings); and
(aa) Section 124.17 (a) and (c)—(Response to comments).

NOTE: States need not implement provisions identical to the above listed provisions. Implemented provisions must, however, establish requirements at least as stringent as the corresponding listed provisions. While States may impose more stringent requirements, they may not make one requirement more lenient as a tradeoff for making another requirement more stringent; for example, by requiring that public hearings be held prior to issuing any permit while reducing the amount of advance notice of such a hearing.


§ 271.15 Requirements for compliance evaluation programs.

(a) State programs shall have procedures for receipt, evaluation, retention and investigation for possible enforcement of all notices and reports required of permittees and other regulated persons (and for investigation for possible enforcement of failure to submit these notices and reports).

(b) State programs shall have inspection and surveillance procedures to determine, independent of information supplied by regulated persons, compliance or noncompliance with applicable program requirements. The State shall maintain:

(1) A program which is capable of making comprehensive surveys of all facilities and activities subject to the State Director’s authority to identify persons subject to regulation who have
failed to comply with permit application or other program requirements. Any compilation, index, or inventory of such facilities and activities shall be made available to the Regional Administrator upon request;

(2) A program for periodic inspections of the facilities and activities subject to regulation. These inspections shall be conducted in a manner designed to:
   (i) Determine compliance or non-compliance with issued permit conditions and other program requirements;
   (ii) Verify the accuracy of information submitted by permittees and other regulated persons in reporting forms and other forms supplying monitoring data; and
   (iii) Verify the adequacy of sampling, monitoring, and other methods used by permittees and other regulated persons to develop that information;

(3) A program for investigating information obtained regarding violations of applicable program and permit requirements; and

(4) Procedures for receiving and ensuring proper consideration of information submitted by the public about violations. Public efforts in reporting violations shall be encouraged, and the State Director shall make available information on reporting procedures.

(c) The State Director and State officers engaged in compliance evaluation shall have authority to enter any site or premises subject to regulation or in which records relevant to program operation are kept in order to copy any records, inspect, monitor or otherwise investigate compliance with the State program including compliance with permit conditions and other program requirements. States whose law requires a search warrant before entry require a search warrant before entry conform with this requirement.

(d) Investigatory inspections shall be conducted, samples shall be taken and other information shall be gathered in a manner (e.g., using proper “chain of custody” procedures) that will produce evidence admissible in an enforcement proceeding or in court.

§271.16 Requirements for enforcement authority.

(a) Any State agency administering a program shall have available the following remedies for violations of State program requirements:

   (1) To restrain immediately and effectively any person by order or by suit in State court from engaging in any unauthorized activity which is endangering or causing damage to public health or the environment.
   
   Note: This paragraph requires that States have a mechanism (e.g., an administrative cease and desist order or the ability to seek a temporary restraining order) to stop any unauthorized activity endangering public health or the environment.

   (2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement, including permit conditions, without the necessity of a prior revocation of the permit;

   (3) To access or sue to recover in court civil penalties and to seek criminal remedies, including fines, as follows:

   (i) Civil penalties shall be recoverable for any program violation in at least the amount of $10,000 per day.
   (ii) Criminal remedies shall be obtainable against any person who knowingly transports any hazardous waste to an unpermitted facility; who treats, stores, or disposes of hazardous waste without a permit; who knowingly transports, treats, stores, disposes, recycles, causes to be transported, or otherwise handles any used oil regulated by EPA under section 3014 of RCRA that is not listed or identified as a hazardous waste under the state’s hazardous waste program in violation of standards or regulations for management of such used oil; or who makes any false statement, or representation in any application, label, manifest, record, report, permit or other document filed, maintained, or used for purposes of program compliance (including compliance with any standards or regulations for used oil regulated by EPA under section 3014 of RCRA that is not listed or identified as hazardous waste). Criminal fines shall be recoverable in at least the amount of $10,000 per day for each violation, and imprisonment for at least six months shall be available.

   (b)(1) The maximum civil penalty or criminal fines (as provided in paragraph (a)(3) of this section) shall be assessable for each instance of violation
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and, if the violation is continuous, shall be assessable up to the maximum amount for each day of violation.

(2) The burden of proof and degree of knowledge or intent required under State law for establishing violations under paragraph (a)(3) of this section, shall be no greater than the burden of proof or degree of knowledge or intent EPA must provide when it brings an action under the Act.

NOTE: For example, this requirement is not met if State law includes mental state as an element of proof for civil violations.

(c) A civil penalty assessed, sought, or agreed upon by the State Director under paragraph (a)(3) of this section shall be appropriate to the violation.

NOTE: To the extent the State judgments or settlements provide penalties in amounts which EPA believes to be substantially inadequate in comparison to the amounts which EPA would require under similar facts, EPA, when authorized by the applicable statute, may commence separate actions for penalties.

In addition to the requirements of this paragraph, the State may have other enforcement remedies. The following enforcement options, while not mandatory, are highly recommended:

Procedures for assessment by the State of the costs of investigations, inspections, or monitoring surveys which lead to the establishment of violations;

Procedures which enable the State to assess or to sue any persons responsible for unauthorized activities for any expenses incurred by the State in removing, correcting, or terminating any adverse effects upon human health and the environment resulting from the unauthorized activity, whether or not accidental;

Procedures which enable the State to sue for compensation for any loss or destruction of wildlife, fish or aquatic life, or their habitat, and for any other damages caused by the unauthorized activity, either to the State or to any residents of the State who are directly aggrieved by the unauthorized activity, or both; and

Procedures for the administrative assessment of penalties by the Director.

(4) Any State administering a program under this subpart shall provide for public participation in the State enforcement process by providing either:

(1) Authority which allows intervention as of right in any civil action to obtain the remedies specified in paragraph (a) (2) or (3) of this section by any citizen having an interest which is or may be adversely affected; or

(2)(i) Assurance by the appropriate State agency that it will investigate and provide written responses to all citizen complaints submitted pursuant to the procedures specified in §271.15(b)(4):

(ii) Assurance by the appropriate State enforcement authority that it will not oppose intervention by any citizen when permissive intervention is authorized by statute, rule, or regulation; and

(iii) Assurance by the appropriate State enforcement authority that it will publish notice of and provide at least 30 days for public comment on all proposed settlements of civil enforcement actions, except in cases where a settlement requires some immediate action (e.g., cleanup) which if otherwise delayed could result in substantial damage to either public health or the environment.

(e) Any State authority used to issue an enforceable document either in lieu of a post-closure permit as provided in 40 CFR 270.1(c)(7), or as a source of alternative requirements for regulated units, as provided under 40 CFR 264.90(f), 264.110(c), 264.140(d), 265.90(d), 265.110(d), and 265.140(d), shall have available the following remedies:

(1) Authority to sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of the requirements of such documents, as well as authority to compel compliance with requirements for corrective action or other emergency response measures deemed necessary to protect human health and the environment; and

(2) Authority to access or sue to recover in court civil penalties, including fines, for violations of requirements in such documents.


§ 271.17 Sharing of information.

(a) Any information obtained or used in the administration of a State program shall be available to EPA upon request without restriction. If the information has been submitted to the State under a claim of confidentiality, the State must submit that claim to EPA when providing information under this subpart. Any information obtained from a State and subject to a claim of confidentiality will be treated in accordance with the regulations in 40 CFR part 2. If EPA obtains from a State information that is not claimed to be confidential, EPA may make that information available to the public without further notice.

(b) EPA shall furnish to States with approved programs the information in its files not submitted under a claim of confidentiality which the State needs to implement its approved program. EPA shall furnish to States with approved programs information submitted to EPA under a claim of confidentiality, which the State needs to implement its approved program, subject to the conditions in 40 CFR part 2.

(c)(1) The State program must provide for the public availability of information obtained by the State regarding facilities and sites for the treatment, storage, and disposal of hazardous waste. Such information must be made available to the public in substantially the same manner, and to the same degree, as would be the case if the Administrator was carrying out the provisions of Subtitle C of RCRA in the State.

(2) A State must revise its program to comply with this section in accordance with §271.21(e)(2)(ii). Interim authorization under §271.21 is not available to demonstrate compliance with this section.


§ 271.18 Coordination with other programs.

(a) Issuance of State permits under this subpart may be coordinated, as provided in part 124, with issuance of UIC, NPDES, and 404 permits whether they are controlled by the State, EPA, or the Corps of Engineers. See §124.4.

(b) The State Director of any approved program which may affect the planning for and development of hazardous waste management facilities and practices shall consult and coordinate with agencies designated under section 4006(b) of RCRA (40 CFR part 255) as responsible for the development and implementation of State solid waste management plans under section 4002(b) of RCRA (40 CFR part 256).

§ 271.19 EPA review of State permits.

(a) The Regional Administrator may comment on permit applications and draft permits as provided in the Memorandum of Agreement under §271.8.

(b) Where EPA indicates, in a comment, that issuance of the permit would be inconsistent with the approved State program, EPA shall include in the comment:

(1) A statement of the reasons for the comment (including the section of RCRA or regulations promulgated thereunder that support the comment); and

(2) The actions that should be taken by the State Director in order to address the comments (including the conditions which the permit would include if it were issued by the Regional Administrator).

(c) A copy of any comment shall be sent to the permit applicant by the Regional Administrator.

(d) The Regional Administrator shall withdraw such a comment when satisfied that the State has met or refuted his or her concerns.

(e) Under section 3008(a)(3) of RCRA, EPA may terminate a State-issued permit or bring an enforcement action in accordance with the procedures of 40 CFR part 22 in the case of a violation of a State program requirement. In exercising these authorities, EPA will observe the following conditions:

(1) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the ground that the permittee is not complying with a condition of that permit.

(2) The Regional Administrator may take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit at any time on the
ground that the permittee is not complying with a condition that the Regional Administrator in commenting on the permit application or draft permit stated was necessary to implement approved State program requirements, whether or not that condition was included in the final permit.

(3) The Regional Administrator may not take action under section 3008(a)(3) of RCRA against a holder of a State-issued permit on the ground that the permittee is not complying with a condition necessary to implement approved State program requirements unless the Regional Administrator stated in commenting on the permit application or draft permit that the condition was necessary.

(4) The Regional Administrator may take action under section 7003 of RCRA against a permit holder at any time whether or not the permit holder is complying with permit conditions.

(f) Notwithstanding the above provisions, EPA shall issue permits, or portions of permits, to facilities in authorized States as necessary to implement the Hazardous and Solid Waste Amendments of 1984.


§ 271.20 Approval process.

(a) Prior to submitting an application to EPA for approval of a State program, the State shall issue public notice of its intent to seek program approval from EPA. This public notice shall:

(1) Be circulated in a manner calculated to attract the attention of interested persons including:
   (i) Publication in enough of the largest newspapers in the State to attract statewide attention; and
   (ii) Mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested;

(2) Indicate when and where the State’s proposed submission may be reviewed by the public;

(3) Indicate the cost of obtaining a copy of the submission;

(4) Provide for a comment period of not less than 30 days during which time interested members of the public may express their views on the proposed program;

(5) Provide that a public hearing will be held by the State or EPA if sufficient public interest is shown or, alternatively, schedule such a public hearing. Any public hearing to be held by the State on its application for authorization shall be scheduled no earlier than 30 days after the notice of hearing is published;

(6) Briefly outline the fundamental aspects of the State program; and

(7) Identify a person that an interested member of the public may contact with any questions.

(b) If the proposed State program is substantially modified after the public comment period provided in paragraph (a)(4) of this section, the State shall, prior to submitting its program to the Administrator, provide an opportunity for further public comment in accordance with the procedures of paragraph (a) of this section. Provided, that the opportunity for further public comment may be limited to those portions of the State’s application which have been changed since the prior public notice.

(c) After complying with the requirements of paragraphs (a) and (b) of this section, the State may submit, in accordance with §271.5, a proposed program to EPA for approval. Such formal submission may only be made after the date of promulgation of the last component of Phase II. The program submission shall include copies of all written comments received by the State, a transcript, recording, or summary of any public hearing which was held by the State, and a responsiveness summary which identifies the public participation activities conducted, describes the matters presented to the public, summarizes significant comments received and responds to these comments.

(d) Within 90 days from the date of receipt of a complete program submission for final authorization, the Administrator shall make a tentative determination as to whether or not he expects to grant authorization to the State program. If the Administrator indicates that he may not approve the State program he shall include a general statement of his areas of concern.
The Administrator shall give notice of this tentative determination in the Federal Register and in accordance with paragraph (a)(1) of this section. Notice of the tentative determination of authorization shall also:

1. Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination of authorization. The notice may require persons wishing to present testimony to file a request with the Regional Administrator, who may cancel the public hearing if sufficient public interest in a hearing is not expressed.

2. Afford the public 30 days after the notice to comment on the State’s submission and the tentative determination; and

3. Note the availability of the State submission for inspection and copying by the public.

(e) Within 90 days of the notice given pursuant to paragraph (d) of this section, the Administrator shall make a final determination whether or not to approve the State’s program, taking into account any comments submitted. The Administrator shall give notice of this final determination in the Federal Register and in accordance with paragraph (a)(1) of this section. The notification shall include a concise statement of the reasons for this determination, and a response to significant comments received.

§271.21 Procedures for revision of State programs.

(a) Either EPA or the approved State may initiate program revision. Program revision may be necessary when the controlling Federal or State statutory or regulatory authority is modified or supplemented. The State shall keep EPA fully informed of any proposed modifications to its basic statutory or regulatory authority, its forms, procedures, or priorities.

(b) Revision of a State program shall be accomplished as follows:

1. The State shall submit a modified program description, Attorney General’s statement, Memorandum of Agreement, or such other documents as EPA determines to be necessary under the circumstances.

2. The Administrator shall approve or disapprove program revisions based on the requirements of this part and of the Act. In approving or disapproving program revisions, the Administrator shall follow the procedures of paragraph (b)(3) or (4) of this section.

3. The procedures for an immediate final publication of the Administrator’s decision are as follows:

i. The Administrator shall issue public notice of his approval or disapproval of a State program revision:

(A) In the Federal Register;

(B) In enough of the largest newspapers in the State to attract Statewide attention; and

(C) By mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested.

ii. The public notice shall summarize the State program revision, indicate whether EPA intends to approve or disapprove the revision and provide for an opportunity to comment for a period of 30 days.

iii. Approval or disapproval of a State program revision shall become effective 60 days after the date of publication in accordance with paragraph (b)(3)(i) of this section, unless an adverse comment pertaining to the State revision discussed in the notice is received by the end of the comment period. If an adverse comment is received the Administrator shall so notify the State and shall, within 60 days after the date of publication, publish in the Federal Register either:

(A) A withdrawal of the immediate final decision; or

(B) A notice containing a response to comments and which either affirms that the immediate final decision takes effect or reverses the decision.

4. The procedures for proposed and final publication of the Administrator’s decision are as follows:

i. The Administrator shall issue public notice of his proposed approval or disapproval of a State program revision:

(A) In the Federal Register;
(B) In enough of the largest newspapers in the State to attract State-wide attention; and

(C) By mailing to persons on the State agency mailing list and to any other persons whom the agency has reason to believe are interested.

(ii) The public notice shall summarize the State program revision, indicate whether EPA intends to approve or disapprove the revision and provide for an opportunity to comment for a period of at least 30 days.

(iii) A State program revision shall become effective when the Administrator's final approval is published in the FEDERAL REGISTER.

(c) States with approved programs shall notify EPA whenever they propose to transfer all or part of any program from the approved State agency to any other State agency, and shall identify any new division of responsibilities among the agencies involved. The new agency is not authorized to administer the program until approved by the Administrator under paragraph (b) of this section. Organizational charts required under §271.6(b) shall be revised and resubmitted.

(d) Whenever the Administrator has reason to believe that circumstances have changed with respect to a State program, he may request, and the State shall provide, a supplemental Attorney General's statement, program description, or such other documents or information as are necessary.

(e)(1) As the Federal program changes, authorized State programs must be revised to remain in compliance with this subpart.

(2) Federal program changes are defined for purposes of this section as promulgated amendments to 40 CFR parts 124, 270, 260-266, or 268 and any self-implementing statutory provisions (i.e., those taking effect without prior implementing regulations) which are listed as State program requirements in this subpart. States must modify their programs to reflect Federal program changes and must subsequently submit the modifications to EPA for approval.

(i) For Federal program changes occurring before July 1, 1984, the State program must be modified within one year of the date of the Federal program change.

(ii) Except as provided in paragraphs (e)(iii) and (iv) of this section, for Federal program changes occurring on or after July 1, 1984, the State program must be modified by July 1 of each year to reflect all changes to the Federal program occurring during the 12 months preceding the previous July 1. (For example, States must modify their programs by July 1, 1986 to reflect all changes from July 1, 1984 to June 30, 1985.)

(iii) For Federal program changes identified in §271.1(j) that occur between November 8, 1984 and June 30, 1987 (inclusive), the State program must be modified by July 1, 1989.

(iv) For Federal program changes identified in §271.1(j) that occur between July 1, 1987 and June 30, 1990 (inclusive), the State program must be modified by July 1, 1991.

(v) States may have an additional year to modify their programs for those changes to the Federal program identified in paragraphs (e)(i), (ii), (iii), and (iv) of this section which necessitate a State statutory amendment.

(3) The deadlines in paragraphs (e)(2)(i) through (v) may be extended by the Regional Administrator upon an adequate demonstration by a State that it has made a good faith effort to meet these deadlines and that its legislative or rulemaking procedures render the State unable to do so. No such extension shall exceed six months.

(4)(i) Within 30 days of the completion of the State program modification the State must submit to EPA a copy of the program change and a schedule indicating when the State intends to seek approval of the change. Such schedule shall not exceed the dates provided for in paragraph (e)(4)(ii).

(ii) Within 60 days of the appropriate deadline in paragraphs (e), (f), and (g) of this section, the State must submit to EPA the documentation described in paragraph (b) of this section to revise its program.

(f) A State must modify its program to comply with any Federal program changes which occur prior to the day that final authorization is received, except for those changes that the State
has already received authorization for
pursuant to §271.3(f). Such State pro-
gram modifications must be completed
and submitted by the deadlines speci-
fied in paragraph (e) of this section or
by the date of final authorization,
whichever is later.

(g)(1) States that are unable to mod-
ify their programs by the deadlines in
paragraph (e) may be placed on a
schedule of compliance to adopt the
program revision(s) provided that:

(i) The State has received an exten-
sion of the program modification dead-
line under paragraph (e)(3) and has
made diligent efforts to revise its pro-
gram during that period of time,

(ii) The State has made progress in
adopting the program modifications,

(iii) The State submits a proposed
timetable for the requisite regulatory
and/or statutory revisions by the dead-
line granted under paragraph (e)(3),

(iv) The schedule of compliance for
program revisions does not exceed one
year from the extended program modi-
fication deadline under paragraph
(e)(3), and

(v) The schedule of compliance is
published in the FEDERAL REGISTER.

(2) If a State fails to comply with the
schedule of compliance, the Adminis-
trator may initiate program with-
drawal procedures pursuant to §§271.22
and 271.23.

(h) Abbreviated authorization revisions.
This abbreviated procedure applies to
State Program revisions for the Fed-
eral rulemakings listed in Table 1 of
this section. The abbreviated proce-
dures are as follows:

(1) An application for a revision of a
State’s program for the rulemakings
listed in Table 1 of this section shall
consist of:

(i) A statement from the State that
its laws and regulations provide au-
thority that is equivalent to, and no
less stringent than, the designated
minor rules or parts of rules specified
in Table 1 of this section, and which in-
cludes references to the specific stat-
utes, administrative regulations and
where appropriate, judicial decisions.
State statutes and regulations cited in
the statement shall be lawfully adopt-
ed at the time the statement is signed
and fully effective by the time the pro-
gram revisions are approved; and

(ii) Copies of all applicable State
statutes and regulations.

(2) Within 30 days of receipt by EPA
of a State’s application for final au-
thorization to implement a rule speci-
ified in Table 1 of this section, if the
Administrator determines that the ap-
plication is not complete or contains
errors, the Administrator shall notify
the State. This notice will include a
concise statement of the deficiencies
which form the basis for this deter-
mination. The State will address all de-
ficiencies and resubmit the application
to EPA for review.

(3) For purposes of this section an ap-
application is considered incomplete
when:

(i) Copies of applicable statutes or
regulations were not included;

(ii) The statutes or regulations relied
on by the State to implement the pro-
gram revisions are not lawfully adopt-
ed at the time the statement is signed
or fully effective by the time the pro-
gram revisions are approved;

(iii) In the statement, the citations
to the specific statutes, administrative
regulations and where appropriate, ju-
dicial decisions are not included or in-
complete; or

(iv) The State is not authorized to
implement the prerequisite RCRA rules
as specified in paragraph (h)(5) of this
section.

(4) Within 60 days after receipt of a
complete final application from a State
for final authorization to implement a
rule or rules specified in Table 1 of this
section, the Administrator shall pub-
lish a notice of the decision to grant
final authorization in accordance with
the procedures for immediate final
publication in paragraph (b)(3) of this
section.

(5) To be eligible to use the procedure
in this paragraph (h), a State must be
authorized for the provisions which the
rule listed in Table 1 to this section
amends.
Table 1 to §271.21

<table>
<thead>
<tr>
<th>Title of regulation</th>
<th>Promulgation date</th>
<th>Federal Register reference</th>
</tr>
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<tr>
<td>Land Disposal Rest-</td>
<td>Sept. 19, 1994</td>
<td>59 FR 47982</td>
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<td>the Universal</td>
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<td>Treatment Standards in §§ 268.40 and 268.48 of this chapter only.</td>
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<td>Office of Resource</td>
<td>July 14, 2005</td>
<td>70 FR 34538, June 14, 2005</td>
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<td>Conservation and</td>
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<td>July 14, 2005</td>
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<td>ardous waste in</td>
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<td>boilers and in-</td>
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<td>dustrial furnaces.</td>
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<td>Air Emissions</td>
<td>July 14, 2005</td>
<td>70 FR 34538, June 14, 2005</td>
</tr>
<tr>
<td>Standards for Tanks, Surface Impoundments, and Containers.</td>
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</tbody>
</table>

§271.22 Criteria for withdrawing approval of State programs.

(a) The Administrator may withdraw program approval when a State program no longer complies with the requirements of this subpart, and the State fails to take corrective action. Such circumstances include the following:

1. When the State’s legal authority no longer meets the requirements of this part, including:
   (i) Failure of the State to promulgate or enact new authorities when necessary; or
   (ii) Action by a State legislature or court striking down or limiting State authorities.

2. When the operation of the State program fails to comply with the requirements of this part, including:
   (i) Failure to exercise control over activities required to be regulated under this part, including failure to issue permits;
   (ii) Repeated issuance of permits which do not conform to the requirements of this part; or
   (iii) Failure to comply with the public participation requirements of this part.

3. When the State’s enforcement program fails to comply with the requirements of this part, including:
   (i) Failure to act on violations of permits or other program requirements;
   (ii) Failure to seek adequate enforcement penalties or to collect administrative fines when imposed; or
   (iii) Failure to inspect and monitor activities subject to regulation.

4. When the State program fails to comply with the terms of the Memorandum of Agreement required under §271.8.

§271.23 Procedures for withdrawing approval of State programs.

(a) A State with a program approved under this part may voluntarily transfer program responsibilities required by Federal law to EPA by taking the following actions, or in such other manner as may be agreed upon with the Administrator.

1. The State shall give the Administrator 180 days notice of the proposed transfer and shall submit a plan for the orderly transfer of all relevant program information not in the possession of EPA (such as permits, permit files, compliance files, reports, permit applications) which are necessary for EPA to administer the program.

2. Within 60 days of receiving the notice and transfer plan, the Administrator shall evaluate the State’s transfer plan and shall identify any additional information needed by the Federal government for program administration and/or identify any other deficiencies in the plan.

3. At least 30 days before the transfer is to occur the Administrator shall publish notice of the transfer in the Federal Register and in enough of the largest newspapers in the State to provide Statewide coverage, and shall mail notice to all permit holders, permit applicants, other regulated persons
and other interested persons on appropriate EPA and State mailing lists.

(b) The following procedures apply when the Administrator orders the commencement of proceedings to determine whether to withdraw approval of a State program.

(1) Order. The Administrator may order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person alleging failure of the State to comply with the requirements of this part as set forth in §271.22. The Administrator shall respond in writing to any petition to commence withdrawal proceedings. He may conduct an informal investigation of the allegations in the petition to determine whether cause exists to commence proceedings under this paragraph. The Administrator’s order commencing proceedings under this paragraph shall fix a time and place for the commencement of the hearing and shall specify the allegations against the State which are to be considered at the hearing. Within 30 days the State shall admit or deny these allegations in a written answer. The party seeking withdrawal of the State’s program shall have the burden of coming forward with the evidence in a hearing under this paragraph.

(2) Definitions. For purposes of this paragraph the definitions of Act, Administrative Law Judge, Hearing, Hearing Clerk, and Presiding Officer in 40 CFR part 22 apply in addition to the following:

(i) Party means the petitioner, the State, the Agency and any other person whose request to participate as a party is granted.

(ii) Person means the Agency, the State and any individual or organization having an interest in the subject matter of the proceeding.

(iii) Petitioner means any person whose petition for commencement of withdrawal proceedings has been granted by the Administrator.

(3) Procedures. The following provisions of 40 CFR part 22 (Consolidated Rules of Practice) are applicable to proceedings under this paragraph:

(i) Section 22.02—(use of number/gender);

(ii) Section 22.04(c)—(authorities of Presiding Officer);

(iii) Section 22.06—(filing/service of rulings and orders);

(iv) Section 22.07 (a) and (b)—except that, the time for commencement of the hearing shall not be extended beyond the date set in the Administrator’s order without approval of the Administrator (computation/extension of time);

(v) Section 22.08—however, substitute “order commencing proceedings” for “complaint”—(Ex Parte contacts);

(vi) Section 22.09—(examination of filed documents);

(vii) Section 22.11 (a), (c) and (d), however, motions to intervene must be filed 15 days from the date the notice of the Administrator’s order is first published—(intervention);

(viii) Section 22.16 except that, service shall be in accordance with paragraph (b)(4) of this section, the first sentence in §22.16(c) shall be deleted, and, the word “recommended” shall be substituted for the word “initial” in §22.16(c)—(motions);

(ix) Section 22.19 (a), (b) and (c)—(prehearing conference);

(x) Section 22.22—(evidence);

(xi) Section 22.23—(objections/offers of proof);

(xii) Section 22.25—(filing the transcript); and

(xiii) Section 22.26—(findings/conclusions).

(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, 1200 Pennsylvania Ave., NW., Washington, DC 20460;

(iii) Upon notice to all parties the Presiding Officer may authorize corrections to the transcript which involve 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 such 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, at the discretion of the Presiding Officer, be permitted to make a limited appearance by making an 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. All parties to the proceeding may;

(i) Appear by counsel or other representative in all hearing and pre-hearing proceedings;

(ii) 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 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 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 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 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 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.

(c) Withdrawal of authorization under this section and the 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.

§ 271.25  HSWA requirements.

Unless otherwise provided in part 271, the State program shall have standards at least as stringent as the requirements and prohibitions that have taken effect under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

[51 FR 33723, Sept. 22, 1986]

§ 271.26  Requirements for used oil management.

The State shall have standards for used oil management which are equivalent to 40 CFR part 279. These standards shall include:

(a) Standards for used oil generators which are equivalent to those under subpart C of part 279 of this chapter;

(b) Standards for used oil collection centers and aggregation points which are equivalent to those under subpart D of part 279 of this chapter;

(c) Standards for used oil transporters and transfer facilities which are equivalent to those under subpart E of part 279 of this chapter;

(d) Standards for used oil processors and re-refiners which are equivalent to those under subpart F of part 279 of this chapter;

(e) Standards for used oil burners who burn off-specification used oil for energy recovery which are equivalent to those under subpart G of part 279 of this chapter;

(f) Standards for used oil fuel marketers which are equivalent to those under subpart H of part 279 of this chapter; and

(g) Standards for use as a dust suppressant and disposal of used oil which are equivalent to those under subpart I of part 279 of this chapter. A State may petition (e.g., as part of its authorization petition submitted to EPA under § 271.5) to allow the use of used oil that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as a dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

(b)(1) Unless otherwise provided in part 271, state programs shall have standards for the marketing and burning of used oil for energy recovery that are at least as stringent as the requirements and prohibitions that EPA adopted on November 29, in 40 CFR part 279, subpart E of this chapter. The part 279 of this chapter requirements specified in Table 1 (except those provisions identified in footnotes 1 and 2 of Table 1) are Federally enforceable in those states that have not adopted state requirements equivalent to 40 CFR part 279, subparts G and H of this chapter requirements and have not been authorized to enforce the state requirements.

TABLE 1—REGULATIONS ADOPTED NOVEMBER 29, 1985 REGARDING THE BURNING OF USED OIL FOR ENERGY RECOVERY

(These part 279 provisions will continue to be enforced by EPA)

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<tr>
<td>Sec. 266.40(a)</td>
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<td>Sec. 266.40(b)</td>
<td>Sec. 279.61</td>
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<tr>
<td>Sec. 266.40(c) [rebuttable presumption]</td>
<td>Sec. 279.63(a), (b) and (c)</td>
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### TABLE 1—REGULATIONS ADOPTED NOVEMBER 29, 1985 REGARDING THE BURNING OF USED OIL FOR ENERGY RECOVERY—Continued

(These part 279 provisions will continue to be enforced by EPA)

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<td>Sec. 279.70(a) and (b)(1)</td>
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<td>Sec. 279.72(b) ..............................................</td>
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</table>

1 Contains additional new definitions that were not included in the 1985 rule.
2 Paragraphs (c)(1) and (2) of §279.63 contain new exemptions from the rebuttable presumption that were not part of the 1985 rule.

(2) In states that have not been authorized for the RCRA base program, all requirements of Part 279 will be Federally enforceable effective March 8, 1993.


§ 271.27 Interim authorization-by-rule for the revised Corrective Action Management Unit rule.

(a) States shall be deemed to have interim authorization pursuant to section 3006(g) of RCRA for the revised Corrective Action Management Unit rule if:

1. The State has been granted final authorization pursuant to section 3006(b) of RCRA for the regulation entitled “Corrective Action Management Units and Temporary Units,” February 16, 1993 and cited in Table 1 in §271.1; and

2. The State notifies the Regional Administrator by March 25, 2002 that the State intends to and is able to use the revised Corrective Action Management Unit Standards rule as guidance.

(b) Interim authorization pursuant to this section expires on August 30, 2004 if the State has not submitted an application for final authorization.

[67 FR 3029, Jan. 22, 2002]

Subpart B [Reserved]

PART 272—APPROVED STATE HAZARDOUS WASTE MANAGEMENT PROGRAMS

Subpart A—General Provisions

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272.2 Incorporation by reference.
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Subpart B—Alabama

272.50—272.99 [Reserved]

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272.201 Arkansas State-administered program: Final authorization.
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272.401 State-administered program: Final authorization.
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272.501 Florida State-administered program: Final authorization.
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272.850–272.899 [Reserved]

Subpart S—Kentucky
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272.951 Louisiana State-administered program: Final authorization.
272.952–272.999 [Reserved]

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272.1151 State-administered program: Final authorization.
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272.1201 Mississippi State-administered program: Final authorization.
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272.1350 [Reserved]
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Subpart CC—Nebraska
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272.1600 [Reserved]
272.1601 New Mexico State-administered program: Final authorization.
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Subpart HH—New York
272.1650 [Reserved]
272.1651 New York State-administered program: Final authorization.
272.1652–272.1699 [Reserved]

Subpart II—North Carolina
272.1700–272.1749 [Reserved]

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272.1750 [Reserved]
272.1751 North Dakota State-administered program: Final authorization.
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Environmental Protection Agency

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272.1801 State-administered program: Final authorization.
272.1802–272.1849 [Reserved]

Subpart LL—Oklahoma
272.1850 [Reserved]
272.1851 Oklahoma State-administered program: Final authorization.
272.1852–272.1899 [Reserved]

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272.1900–272.1949 [Reserved]

Subpart NN—Pennsylvania
272.1950–272.1999 [Reserved]

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272.2000–272.2049 [Reserved]

Subpart PP—South Carolina
272.2050–272.2099 [Reserved]

Subpart QQ—South Dakota
272.2100 [Reserved]
272.2102–272.2149 [Reserved]

Subpart RR—Tennessee
272.2150–272.2199 [Reserved]

Subpart SS—Texas
272.2200 [Reserved]
272.2201 Texas State-administered program: Final authorization.
272.2202–272.2249 [Reserved]

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272.2251 Utah State-Administered program: Final authorization.
272.2252–272.2299 [Reserved]

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Subpart WW—Washington
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272.2501 Wisconsin State-administered program: Final authorization.
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Subpart AAA—Guam
272.2600–272.2649 [Reserved]

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APPENDIX A TO PART 272—STATE REQUIREMENTS

AUTHORITY: Secs. 2002(a), 3006, and 7004(b) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6912(a), 6926, and 6974(b).

SOURCE: 51 FR 3955, Jan. 31, 1986, unless otherwise noted.

Subpart A—General Provisions

§ 272.1 Purpose and scope.

This part sets forth the applicable State hazardous waste management programs under section 3006(b) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6926, and 40 CFR 260.10. “State” is defined in 42 U.S.C. 1004(31) as “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.”

[58 FR 3500, Jan. 11, 1993]

§ 272.2 Incorporation by reference.

Material listed as incorporated by reference in part 272 was approved for
incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Material is incorporated as it exists on the date of the approval, and notice of any change in the material will be published in the Federal Register. Copies may be obtained or inspected at EPA Resource and Conservation Recovery Act (RCRA) Docket Information Center (5305G), 1200 Pennsylvania Ave., NW., Washington, DC 20460 and at the appropriate EPA Regional Office. Copies may be inspected at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. For an informational listing of the State and local requirements incorporated in part 272, see appendix A to this part.

[58 FR 3500, Jan. 11, 1993, as amended at 69 FR 18803, Apr. 9, 2004]

§§ 272.3–272.49 [Reserved]

Subpart B—Alabama

§§ 272.50–272.99 [Reserved]

Subpart C—Alaska

§§ 272.100–272.149 [Reserved]

Subpart D—Arizona

§ 272.150 [Reserved]

§ 272.151 Arizona State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Arizona has final authorization for the following elements as submitted to EPA in Arizona’s base program application for final authorization which was approved by EPA effective on December 4, 1985. Subsequent program revision applications were approved effective on October 7, 1991, September 11, 1992, January 22, 1993, December 27, 1993, and June 12, 1995.

(b) State Statutes and Regulations. (1) The Arizona statutes and regulations cited in this paragraph are incorporated by reference as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(2) The following statutes and regulations concerning State enforcement, although not incorporated by reference, are part of the authorized State program:


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:

(i) Arizona Laws Relating to Environmental Quality, 1993 edition, reprinted from Arizona Revised Statutes, Title 49, Sections 49–901 through 49–905; 49–922.01; 49–927; 49–929 through 49–942; and 49–944.

(ii) Arizona Administrative Code, Title 18, Chapter 8, December 31, 1994, Sections R18–8–261.J; R18–8–261.L; R18–8–269; and R18–8–270.G.

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region IX and the Arizona Department of Environmental Quality, signed by the EPA Regional Administrator on June 20, 1991, is referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(5) Statement of Legal Authority. “Attorney General’s Statement for Final Authorization”, signed by the Attorney General of Arizona on September 13, 1984, and revisions, supplements and addenda to that Statement dated November 22, 1989, October 31, 1990, August 23, 1993 (two documents), and February 3, 1995, are referenced as part of
the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(6) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto are referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[60 FR 44279, Aug. 25, 1995]

§§ 272.152–272.199 [Reserved]

Subpart E—Arkansas

§ 272.200 [Reserved]

§ 272.201 Arkansas State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), the EPA granted Arkansas final authorization for the following elements as submitted to EPA in Arkansas' Base program application for final authorization which was approved by EPA effective on January 25, 1985. Subsequent program revision applications were approved effective on May 29, 1990; November 18, 1991; December 4, 1992; December 21, 1994; June 24, 2002, October 15, 2007, and August 27, 2010.

(b) The State of Arkansas has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations. (1) The Arkansas statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the Arkansas statutes that are incorporated by reference are available from Michie Publishing, 1275 Broadway Albany, New York 12204, Phone: (800) 223-1940. Copies of the Arkansas regulations that are incorporated by reference are available from the Arkansas Department of Environmental Quality Web site at http://www.adeq.state.ar.us or the Public Outreach Office, ADEQ, Post Office Box 8913, Little Rock, AR 72219-8913, Phone: (501) 682-0923. You may inspect a copy at EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202 (Phone number (214) 665-8533), or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 203-741-6030, or go to http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(2) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities:


Law, Chapter 7, Subchapter 3: Sections 8–7–302(3), 8–7–303, 8–7–308.


(ix) Arkansas Pollution Control and Ecology (APC&E) Commission Regulation No. 23, Hazardous Waste Management, as amended December 9, 2005, effective March 23, 2006, Chapter One; Chapter Two, Sections 6, 262.13(c), 262.24(d), 263.10(e), 263.13, 264.71(e), 265.71(e); Chapter Three, Section 25.


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(ii) Arkansas Pollution Control and Ecology (APC&E) Commission Regulation No. 23, Hazardous Waste Management, as amended December 9, 2005, effective March 23, 2006, Chapter Two, Sections 6, 262.13(c), 262.24(d), 263.10(e), 263.13, 264.71(e), 265.71(e); Chapter Three, Section 25.

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region VI and the State of Arkansas, signed by the Executive Director of the Arkansas Department of Environmental Quality (ADEQ) on November 3, 2000, and by the EPA Regional Administrator on April 5, 2002, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(6) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[75 FR 36544, June 28, 2010]
and Solid Waste Act Amendments of 1984 (HSWA) (Pub. L. 98–616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR 271.9 through 271.17 and 271.21. The State’s program, as administered by the Delaware Department of Natural Resources and Environmental Control, was approved by EPA pursuant to 42 U.S.C. 6926(b) and part 271 of this chapter. EPA’s approval was effective on June 22, 1984, 48 FR 23837.

(b) Delaware is not authorized to implement any HSWA requirement in lieu of EPA unless EPA has explicitly indicated its intent to do so in a FEDERAL REGISTER notice granting Delaware authorization.

(c) Delaware has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities, including conducting inspections under section 3007, 42 U.S.C. 6927, and taking enforcement actions under sections 3008, 3013, and 7003, 42 U.S.C. 6928, 6934 and 6973, as well as under other Federal laws and regulations.

(d) Delaware must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR part 271, subpart A. Delaware must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Delaware obtains final authorization for the revised requirements pursuant to section 3006(g) of RCRA, the newly authorized provisions will be listed in § 272.401. If Delaware obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.402.

§ 272.401 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Delaware has final authorization for the following elements as submitted to EPA in Delaware’s program application and approved by EPA.

(a) State Statutes and Regulations. (1) The requirements in the Delaware statutes and regulations cited in this paragraph are incorporated by reference and made a part of the hazardous waste management program under Subtitle C of RCRA. 42 U.S.C. 6921 et seq. This incorporation by reference was approved by the Director of the Federal Register January 31, 1986.

(i) 7 Delaware Code Annotated sections 6301 through 6307 and 6310 through 6317 (1983 Replacement Volume).

(ii) Delaware Department of Natural Resources and Environmental Control Regulations Governing Hazardous Waste, Parts 260 through 265, 122 and 124, Order Number 83–SW–1, July 28, 1983. (Copies are available from the Delaware Department of Natural Resources and Environmental Control, PO Box 1401, Dover, Delaware 19901.)

(ii) Delaware Department of Natural Resources and Environmental Control Regulations Governing Hazardous Waste, Parts 260 through 265, 122 and 124, Order Number 83–SW–1, July 28, 1983. (Copies are available from the Delaware Department of Natural Resources and Environmental Control, PO Box 1401, Dover, Delaware 19901.)

(2) The following statutes and regulations, although not incorporated by reference, are part of the authorized State program.


(b) Memorandum of Agreement. The Memorandum of Agreement between EPA Region III and the Delaware Department of Natural Resources and Environmental Control, signed by the EPA Regional Administrator on December 14, 1983.


(2) Letter from the Attorney General of Delaware to EPA, April 2, 1984.

(d) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto.
§ 272.402–272.449 [Reserved]

Subpart J—District of Columbia

§ 272.450–272.499 [Reserved]

Subpart K—Florida

§ 272.500 [Reserved]

§ 272.501 Florida State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Florida has final authorization for the following elements as submitted to EPA in Florida's base program application for final authorizations which was approved by EPA effective on February 12, 1985. Subsequent program revision applications were approved and effective January 30, 1988; October 30, 1988; January 3, 1989; February 12, 1991; April 6, 1992; April 7, 1992; July 20, 1992; January 10, 1994; September 9, 1994; October 17, 1994; December 27, 1994; and June 2, 1997.

(b) State Statutes and Regulations.


(2) The following statutes and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified herein for enforcement purposes.

(i) Florida Statutes, 1993, Chapter 403: 403.087(5); 403.201(4) (only the phrase “may require by rule a processing fee for and”); 403.704(8); 403.721(4)(a); 403.7215(1)–(4); 403.722(8); 403.723; 403.724(7); 403.754(1)–(7); 403.767(1)–(3)(c); 403.78 through 403.7893; and 403.7895.


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified herein for enforcement purposes.

(i) Florida Statutes, 1993, Chapter 403: 403.087(5); 403.201(4) (only the phrase “may require by rule a processing fee for “and”’); 403.704(8); 403.721(4)(a); 403.7215(1)–(4); 403.722(8); 403.723; 403.724(7); 403.754(1)–(7); 403.767(1)–(3)(c); 403.78 through 403.7893; and 403.7895.


(4) Unauthorized State Provisions. The State’s adoption of the following Federal rules is not approved by EPA and are, therefore, not enforceable:

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Environmental Protection Agency § 272.651

Federal requirement | FEDERAL REGISTER reference | Publication date
--- | --- | ---
HSWA Codification Rule: Corrective Action (Checklist 17 L) | 50 FR 28702 | 7/15/85
HSWA Codification Rule 2: Corrective Action Beyond Facility Boundary (Checklist 44 B); Corrective Action for Injection Wells (Checklist 44 C); and Permit Modification (Checklist 44 D). | 52 FR 45788 | 12/1/87
Burning of Hazardous Waste in Boilers and Industrial Furnaces (Checklist 85). | 56 FR 7134 | 2/12/91
Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments I (Checklist 94). | 56 FR 42504 | 8/27/91
Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendments II (Checklist 96). | 56 FR 43874 | 9/5/91
Recycled Coke By-Product Exclusion (Checklist 105) | 57 FR 27880 | 6/22/92
Burning Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendment III (Checklist 111). | 57 FR 38558 | 8/25/92
Recycled Used Oil Management Standards (Checklist 112) | 57 FR 41566 | 9/10/92
Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendment IV (Checklist 114). | 57 FR 44999 | 9/30/92
Corrective Action Management Units and Temporary Units (Checklist 121). | 58 FR 8658 | 2/16/93
Recycled Used Oil Management Standards; Technical Amendments and Corrections I (Checklist 122). | 58 FR 26420: Amendments to 40 CFR Parts 260, 261, and 266. | 5/3/93

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region IV and the Florida Department of Environmental Protection, signed by the EPA Regional Administrator on October 23, 1993, as amended on November 28, 1994, and on December 9, 1994, is referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(7) Program Description. The Program Description and any other materials submitted as part of the original application, or as supplements thereto, are referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

§§ 272.502–272.549 [Reserved]

Subpart L—Georgia

§§ 272.550–272.599 [Reserved]

Subpart M—Hawaii

§§ 272.600–272.649 [Reserved]

Subpart N—Idaho

SOURCE: 55 FR 50328, Dec. 6, 1990, unless otherwise noted.


(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Idaho has final authorization for the following elements as submitted to EPA in Idaho’s base program application for final authorization which was approved by EPA effective on April 9, 1990. Subsequent program revision applications were approved effective on June 5, 1992, August 10, 1992, June 11, 1995, January 19, 1999, July 1, 2002, March 10, 2004, July 22, 2005, February 26, 2007 and December 23, 2008.

(b) The State of Idaho has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement
authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations. (1) The Idaho statutes and regulations cited in this paragraph are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(ii) [Reserved]

(2) EPA considered the following statutes and regulations in evaluating the State program but is not incorporating them herein for enforcement purposes:


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, are not incorporated by reference, and are not Federally enforceable:


(iv) Idaho Department of Environmental Quality Rules and Regulations, Idaho Administrative Code, IDAPA 58, Title 1, Chapter 5, “Rules and Standards for Hazardous Waste”, published July 2008: sections 39.01.05.355; and 39.01.05.500.

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 10 and the State of Idaho (IDEP), signed by the EPA Regional Administrator on August 1, 2001, although not incorporated by reference, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

Environmental Protection Agency

§ 272.701


(6) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto, although not incorporated by reference, are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921, et seq.

[75 FR 17312, Apr. 6, 2010]

§§ 272.652–272.699 [Reserved]

Subpart O—Illinois

§ 272.700 State authorization.

(a) The State of Illinois is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 et seq., subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA), (Public Law 98–616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR part 271. The State’s base program and revisions to that program, as administered by the Illinois Environmental Protection Agency, were approved by EPA pursuant to 40 U.S.C. 6926(b) and 40 CFR part 271. EPA’s approval of Illinois’ base program was effective on January 31, 1986. EPA’s approval of revisions to Illinois’ base program were effective on March 5, 1988, April 30, 1990 and June 3, 1991.

(b) Illinois is authorized to implement only those HSWA requirements addressed in 40 CFR 272.701 and codified herein.

(c) Illinois has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under Sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Illinois must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with Section 3006(b) of RCRA and 40 CFR part 271, subpart A. Illinois must seek final authorization for all program revisions pursuant to Section 3006(b) of RCRA but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Illinois obtains final authorization for the revised requirements pursuant to Section 3006(g), the newly authorized provisions will be listed in § 272.701 of this subpart. If Illinois obtains interim authorization for the revised requirements pursuant to Section 3006(g), the newly authorized provisions will be listed in § 272.702.


§ 272.701 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Illinois has final authorization for the following elements submitted to EPA in Illinois; base program and program revision applications for final authorization and approved by EPA effective on January 31, 1986, March 5, 1988, April 30, 1990 and June 3, 1991.

(a) State Statutes and Regulations. (1) The following Illinois regulations and statutes are incorporated by reference with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

§§ 272.702–272.750


Copies of the Illinois regulations that are incorporated by reference in this paragraph are available from the Secretary of State, Administrative Code Division, 288 Centennial Building, Springfield, Illinois 62756. Copies may be inspected at U.S. EPA headquarters, 1200 Pennsylvania Ave., NW., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(ii) [Reserved]

(2) The following statutes and regulations concerning State enforcement and procedures, although not codified herein, are part of the authorized State program:

(i) Illinois Revised Statutes, chapter 111 1/2, sections 1001 through 1003.52; sections 1003.54 through 1005.1; sections 1007 through 1007.1; section 1020(c); sections 1020.1 through 1022.3; sections 1022.5 through 1022.6; sections 1030 through 1034; and section 1039 parts a, d, g, k.


(b) Memorandum of Agreement. The Memorandum of Agreement between EPA-Region V and the Illinois Environmental Protection Agency, signed by the EPA Regional Administrator on January 26, 1990, is part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(d) Program Description. Program Descriptions dated July 26, 1985, August 7, 1986, November 29, 1988, and May 18, 1990, and any other materials submitted as part of, or as supplements to, the original application or revision applications are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

§§ 272.702–272.750 [Reserved]

Subpart P—Indiana

§ 272.751 Indiana state-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Indiana has final authorization for the following elements as submitted to EPA in Indiana’s base program application for final authorization which was approved by EPA effective on January 31, 1986. Subsequent program revision applications were approved effective on December 31, 1986, January 19, 1988, September 11, 1989, September 23, 1991 (two separate revisions), September 27, 1991, September 30, 1991, October 21, 1996, November 30, 1999, and January 4, 2001.

(b) State statutes and regulations. (1) The Indiana statutes and regulations cited in this paragraph are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a). Copies of the Indiana regulations that are incorporated by reference in this paragraph are available from the Indiana Legislative Services Agency, Administrative Code and Register Division, 302 State House, Indianapolis, Indiana 46204.


(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference: Indiana Administrative Code as amended, 1996 edition, certified October 24, 1995, 2000 cumulative supplement, certified November 30, 1999, sections 329 IAC 3.1–6–3; and 3.1–8–4.

(4) **Unauthorized State provisions:** Although the Federal rules listed in the following table have been adopted by the State and have been included in the materials incorporated by reference in paragraph (b)(1) of this section, EPA has not authorized the State for these rules at this time. While they may be enforceable under State law, they are not enforceable under RCRA:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
</table>

(i) Additionally Indiana has adopted but is not authorized to implement the HSWA rules that are listed the following table. EPA will continue to implement the Federal HSWA requirements for which Indiana is not authorized until the State receives specific authorization for those requirements:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HSWA Codification Rule 2; Corrective Action for Injection Wells (Checklist 44C).</td>
<td>52 FR 45788 ..................</td>
<td>December 1, 1987.</td>
</tr>
</tbody>
</table>


(ii) Some regulations listed in the table in paragraph (b)(4)(i) of this section are predominantly HSWA authority but contain provisions that are not HSWA authority. EPA will not enforce these non-HSWA provisions. The affected rules are as follows:

(A) Burning of Hazardous Waste in Boilers and Industrial Furnaces (BIF), including BIF (February 21, 1991);

(B) Corrections and Technical Amendments I (July 17, 1991);

(C) Technical Amendments II (August 27, 1991);

(D) Technical Amendments III (August 25, 1992);

(E) Amendment IV (September 30, 1992);

(F) Requirements for Preparation, Adoption, and Submittal of Implementation Plans (July 20, 1993); and

(G) BIF (November 9, 1993).

(iii) EPA will not enforce BIF rules for Sludge Dryers, Infrared Incinerators, Plasma Arc Incinerators, and Carbon Regeneration Units, until Indiana is authorized for these rules. Petroleum Refining Process (August 6, 1998, as amended October 9, 1998) 40 CFR 261.3, 261.4, and 261.6 are non-HSWA provisions. Standards Applicable to Owners and Operators of Closed/Closing Facilities (October 22, 1998) 40 CFR 264.90(e), 265.110(c), 265.118(c)(4), 265.121 (except §265.121(a)(2)), 270.1, 270.14(a), and 270.28 are non-HSWA provisions. Hazardous Remediation Waste Management Requirements (HWIR Media) (November 30, 1998) 40 CFR 261.4(g), 264.1(j)(1–13), 264.73(b)(17), 270.2, 270.11(d), 270.68, 270.73(a), and 270.79 through 270.230 (40 CFR part 270, subpart H) except §270.230(e)(1) are non-HSWA provisions. Until Indiana becomes authorized for these rules, EPA will not enforce the non-HSWA provisions.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 5 and the Indiana Department of Environmental Management, signed by the Commissioner of the IDEM on February 14, 1996 and acknowledged by the EPA Regional Administrator in the FEDERAL REGISTER noticed signed on July 29, 1996, August 2, 1999, and December 14, 2000, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(6) Statement of legal authority. “Attorney General’s Statement for Final Authorization”, signed by the Attorney General of Indiana on June 28, 1985 and revisions, supplements and addenda to

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(7) Program description. The Program Description and any other materials submitted as part of the original application or as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[66 FR 53728, Oct. 24, 2001]

§§ 272.752–272.799 [Reserved]

Subpart Q—Iowa

§§ 272.800–272.849 [Reserved]

Subpart R—Kansas

§§ 272.850–272.899 [Reserved]

Subpart S—Kentucky

§§ 272.900–272.949 [Reserved]

Subpart T—Louisiana

§ 272.950 [Reserved]

§ 272.951 Louisiana state-administered program: Final authorization.


(b) The State of Louisiana has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State statutes and regulations. (1) The Louisiana statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the Louisiana regulations that are incorporated by reference in this paragraph from the Office of the State Register, P.O. Box 94995, Baton Rouge, LA 70804–9095; Phone number: (225) 342–5015; Web site: http://doa.louisiana.gov/osr/lac/lac.htm. The statutes are available from West Publishing/Company, 610 Opperman Drive, P.O. Box 64526, St. Paul, Minnesota 55164 0526; Phone: 1–800–328–4880; Web site: http://west.thomson.com. You may inspect a copy at EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202 (Phone number (214) 665–8533), or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(2) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities:

(i) Louisiana Statutes Annotated, Revised Statutes, 2000 Main Volume (effective August 15, 1999), Volume 17B, Title II of Title 30, Louisiana Environmental Quality Act, 2000: Chapter 1,


(iii) Louisiana Administrative Code, Title 33, Part I, Office of The Secretary Part I, Subpart 1: Departmental Administrative Procedures: Chapter 5, Sections 501 through 511, effective October 20, 2005; Chapter 7, Section 705, effective March 20, 2004; Chapter 19, Sections 1901 through 1911, effective October 20, 2005; Chapter 23, Sections 2303 through 2309, effective May 20, 2003.


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:

(i) Louisiana Statutes Annotated, Revised Statutes, 2000 Main Volume (effective August 15, 1999), Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act, 2000: Chapter 9, Sections 2178 and 2197.


(4) Unauthorized State Amendments. (i) The State’s adoption of the Non-HSWA Federal rule listed in the following Table is not approved by the EPA and is, therefore, not enforceable. Louisiana has also adopted but is not authorized to implement the HSWA rules that are listed in the Table in lieu of the EPA. The EPA will enforce the Federal HSWA standards for which Louisiana is not authorized until the State receives specific authorization from EPA.

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>Federal Register reference</th>
<th>Publication date</th>
</tr>
</thead>
</table>

(ii) Louisiana adopted the changes made by the August 5, 2005 Federal final rule addressing Mercury Containing Equipment (70 FR 45508) and, at the same time, made changes conforming to the addition of Consumer Electronics as a state universal waste. These changes were made as part of the same state amendment effective December 20, 2005. As noted in the table above, Louisiana is not authorized for the August 5, 2005 Federal final rule,
however, EPA does recognize Consumer Electronics as part of the State’s approved program.

(iii) The following authorized provisions of the Louisiana regulations include amendments published in the Louisiana Register that are not approved by EPA. Such unauthorized amendments are not part of the State’s authorized program and are, therefore, not federally enforceable. Thus, notwithstanding the language in the Louisiana hazardous waste regulations incorporated by reference at paragraph (c)(3)(i) of this section, EPA will enforce the State provisions that are actually authorized by EPA. The effective dates of the State’s authorized provisions are listed in the following Table.

<table>
<thead>
<tr>
<th>State provision</th>
<th>Effective date of authorized provision</th>
<th>Unauthorized State amendments</th>
</tr>
</thead>
</table>

The actual State regulatory text authorized by EPA (i.e., without the unauthorized amendments) is available as a separate document, Addendum to the EPA-Approved Louisiana Regulatory and Statutory Requirements Applicable to the Hazardous Waste Management Program, October, 2007. Copies of the document can be obtained from U.S. EPA Region 6, 1445 Ross Avenue, Dallas, TX 75202 also Louisiana Department of Environmental Quality, 602 N. Fifth Street, Baton Rouge, Louisiana 70884–2178.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the State of Louisiana, signed by the EPA Regional Administrator on September 26, 2006 is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(7) Program Description. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(75 FR 47233, Aug. 5, 2010)

§§ 272.952–272.999 [Reserved]

Subpart U—Maine

§§ 272.1000–272.1049 [Reserved]

Subpart V—Maryland

§§ 272.1050–272.1099 [Reserved]

Subpart W—Massachusetts

§§ 272.1100–272.1149 [Reserved]

Subpart X—Michigan

§ 272.1150 State authorization.

(a) The State of Michigan is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 et seq., subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA) (Public Law 98–616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR part 271. The State’s program, as administered by the Michigan Department of Natural Resources, was approved by EPA pursuant to 42 U.S.C. 6926(b) and part 271 of this chapter. EPA’s approval of Michigan’s base program was effective on October 30,
1986 (see 51 FR 36804). EPA’s approval of the revisions to Michigan’s base program was effective on January 23, 1990 (see 54 FR 48608) and RCRA Cluster III authorization effective June 24, 1991 (see 56 FR 18517).

(b) Michigan is authorized to implement certain HSWA requirements in lieu of EPA. EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Michigan authorization and RCRA Cluster III authorization effective June 24, 1991 (see 56 FR 18517).

(c) Michigan has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Michigan must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR part 271, subpart A. Michigan must seek final authorization for all program revisions, pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA, pursuant to section 3006(g) of RCRA, 42 U.S.C. 6928(g). If Michigan obtains final authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in §272.1151 of this subpart. If Michigan obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in §272.1152.

§272.1151 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6928(b), Michigan has final authorization for the following elements submitted to EPA in Michigan’s base program and program revision applications for final authorization and approved by EPA effective on October 30, 1986 (see 51 FR 36804), January 23, 1990 (see 54 FR 46808), and RCRA Cluster III authorization effective June 24, 1991 (see 56 FR 18517).

(a) State Statutes and Regulations.

(1) The requirements in the Michigan statutes and regulations cited in this paragraph are incorporated by reference and codified as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation, by reference, was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a).


(2) The following statutes and regulations, although not codified herein for enforcement purposes, are part of the authorized State program.


(c) Statement of Legal Authority. The Michigan Attorney General’s Statements for final authorization signed by the Attorney General of Michigan on October 25, 1985, and supplements to that Statement dated June 3, 1986, September 19, 1986, September 7, 1988, and July 31, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(d) Program Description. The Program Description dated June 30, 1984, and the supplements thereto dated June 30, 1986, September 12, 1988, and July 31, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, U.S.C. 6921 et seq.

Subpart Y—Minnesota

§ 272.1200 [Reserved]

§ 272.1201 Minnesota State-administered program; Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Minnesota has final authorization for the following elements as submitted to EPA in Minnesota’s base program and revision application for final authorization as approved by EPA effective on February 11, 1985. Subsequent program revision applications were approved effective on September 18, 1987, June 23, 1989, August 14, 1990, August 23, 1991, May 18, 1992, May 17, 1993, and March 21, 1994.

(a) State statutes and regulations. (1) The Minnesota statutes and regulations cited in appendix A are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(b) Memorandum of Agreement. The Memorandum of Agreement between EPA—Region V and the Michigan Department of Natural Resources, signed by the EPA Regional Administrator on February 7, 1991, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(c) Program Description. The Program Description dated June 30, 1984, and the supplements thereto dated June 30, 1986, September 12, 1988, and July 31, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

§ 272.1200 [Reserved]

§ 272.1201 Minnesota State-administered program; Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Minnesota has final authorization for the following elements as submitted to EPA in Minnesota's base program and revision application for final authorization as approved by EPA effective on February 11, 1985. Subsequent program revision applications were approved effective on September 18, 1987, June 23, 1989, August 14, 1990, August 23, 1991, May 18, 1992, May 17, 1993, and March 21, 1994.

(a) State statutes and regulations. (1) The Minnesota statutes and regulations cited in appendix A are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(b) Memorandum of Agreement. The Memorandum of Agreement between EPA—Region V and the Michigan Department of Natural Resources, signed by the EPA Regional Administrator on February 7, 1991, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(c) Statement of Legal Authority. The Michigan Attorney General’s Statements for final authorization signed by the Attorney General of Michigan on October 25, 1985, and supplements to that Statement dated June 3, 1986, September 19, 1986, September 7, 1988, and July 31, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(d) Program Description. The Program Description dated June 30, 1984, and the supplements thereto dated June 30, 1986, September 12, 1988, and July 31, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, U.S.C. 6921 et seq.
§§ 272.1202–272.1249

(2) The following statutes and regulations concerning State enforcement, although not incorporated by reference for enforcement purposes, are part of the authorized State program: Minnesota Statutes, Chapters 14.02–14.56; 115.07 Subdivisions 1 and 3; 115.071, 116.091; 116.11, and 116B.09 (June 1992 edition).

(b) [Reserved]

§§ 272.1202–272.1249 [Reserved]

Subpart Z—Mississippi

§§ 272.1250–272.1299 [Reserved]

Subpart AA—Missouri

§ 272.1300 State authorization.

(a) The State of Missouri is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 et seq., subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA), (Pub. L. 98–616, Nov. 8, 1984), 42 U.S.C. 6926 (c) and (g)). The Federal program for which a State may receive authorization is defined in 40 CFR part 271. The State’s program, as administered by the Missouri Department of Natural Resources was approved by EPA pursuant to 42 U.S.C. 6926(b) and part 271 of this Chapter. EPA’s approval was effective on December 4, 1985 (50 FR 47740, November 20, 1985).

(b) Missouri is not authorized to implement any HSWA requirements in lieu of EPA unless EPA has explicitly indicated its intent to allow such action in a FEDERAL REGISTER notice granting Missouri authorization.

(c) Missouri has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under sections 3007, 3008, 3013, and 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, and 6973, as well as under other Federal laws and regulations.

(d) Missouri must revise its approved program to adopt new changes to the Federal Subtitle C program in accordance with section 3006(b) of RCRA and 40 CFR part 271. Subpart A. Missouri must seek final authorization for all program revisions pursuant to section 3006(b) of RCRA, but, on a temporary basis, may seek interim authorization for revisions required by HSWA pursuant to section 3006(g) of RCRA, 42 U.S.C. 6926(g). If Missouri obtains final authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in §272.1301 of this subpart. If Missouri obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provision will be listed in §227.1302.

§ 272.1301 State-administered program; Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Missouri has final authorization for the following elements as submitted to EPA in Missouri’s program application for final authorization which was approved on November 20, 1985. Subsequent program revision applications were approved on February 27, 1989, and March 12, 1992. Copies may be obtained from the Hazardous Waste Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.


(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Montana has final authorization for the following elements as submitted to EPA in Montana’s base program application for final authorization which was approved by EPA effective on July 25, 1984. Subsequent program revision applications were approved effective on, March 21, 1994, December 24, 1996, December 26, 2000 and November 29, 2005.

(b) The State of Montana has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations. (1) The Montana regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the Montana regulations that are incorporated by reference in this paragraph are available from the Montana Secretary of State, Administrative Rules Bureau, P.O. Box 202801, Helena, MT 59620–2801 (Phone: 406–444–2055). You may inspect a copy at EPA Region 8, from 7 a.m. to 4 p.m., 999 18th Street, Suite 300, Denver, Colorado 80202–2466, or at the National Archives and Records Administration (NARA). For information on the availability of

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this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(2) EPA considered the following statutes and regulations in evaluating the State program but is not incorporating them herein for enforcement purposes:


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, are not incorporated by reference and are not federally enforceable:


(ii) Administrative Rules of Montana (ARM), effective April 1, 2005, Title 17, “Environmental Quality”, Chapter 53, Hazardous Waste, sections 17.53.112, 17.53.113, 17.53.703, and 17.53.1202(5)(l), and (17).

(4) Memorandum of Agreement and Enforcement Agreement. The Memorandum of Agreement between EPA Region 8 and the State of Montana, signed by the State of Montana Department of Environmental Quality on November 30, 1993, and by the EPA Regional Administrator on December 25, 1993, and the Enforcement Agreement between EPA Region 8 and the State of Montana, signed by the State of Montana Department of Environmental Quality on September 1, 2000, and by the EPA Regional Administrator on September 11, 2000, although not incorporated by reference, are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(6) Program Description. The Program Description and any other materials
submitted as supplements thereto, although not incorporated by reference, are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[71 FR 11538, Mar. 8, 2006]

§§ 272.1352–272.1399 [Reserved]

Subpart CC—Nebraska

§§ 272.1400–272.1449 [Reserved]

Subpart DD—Nevada

§§ 272.1450–272.1499 [Reserved]

Subpart EE—New Hampshire

§§ 272.1500–272.1549 [Reserved]

Subpart FF—New Jersey

§§ 272.1550–272.1599 [Reserved]

Subpart GG—New Mexico

§ 272.1600 [Reserved]

§ 272.1601 New Mexico State-Administered Program: Final Authorization.


(b) The State of New Mexico has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations.

(1) The New Mexico statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the New Mexico regulations that are incorporated by reference in this paragraph from the New Mexico Commission of Public Records, State Records Center and Archives, Administrative Law Division, 1205 Camino Carlos Rey, Santa Fe, NM 87507. The statutes are available from Conway Greene Company, 1400 East 30th Street, Suite #402, Cleveland, OH 44114. You may inspect a copy at EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202 (Phone number (214) 665–8533), or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(2) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities:


(v) Title 20, Chapter 4, Part 1, New Mexico Administrative Code, effective March 1, 2009, unless otherwise indicated: Sections 20.4.1.901 (except 20.4.1.901.B.1 through 20.4.1.901.B.7, and 20.4.1.901.E), 20.4.1.1100 (June 14, 2000), 20.4.1.1104 (June 14, 2000), 20.4.1.1105 (June 14, 2000), and 20.4.1.1107 (October 1, 2003).

(3) (i) The following statutory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(4) Unauthorized State Amendments.

(i) The State’s adoption of the Federal rules listed in the following table is not approved by the EPA and is therefore, not enforceable:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biennial Report</td>
<td>48 FR 3977</td>
<td>01/28/83</td>
</tr>
<tr>
<td>Permit Rules; Settlement Agreement</td>
<td>48 FR 39611</td>
<td>09/01/83</td>
</tr>
<tr>
<td>Interim Status Standards: Applicability</td>
<td>48 FR 52718</td>
<td>11/22/83</td>
</tr>
<tr>
<td>Chlorinated Aliphatic Hydrocarbon Listing (F024)</td>
<td>49 FR 5308</td>
<td>02/10/84</td>
</tr>
<tr>
<td>National Uniform Manifest</td>
<td>49 FR 10490</td>
<td>03/20/84</td>
</tr>
<tr>
<td>National Performance Track Program</td>
<td>69 FR 21737</td>
<td>04/24/04</td>
</tr>
<tr>
<td>Performance Track provisions addressed in the Burden Reduction Initiative Rule</td>
<td>69 FR 62217</td>
<td>10/24/04</td>
</tr>
<tr>
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<td>71 FR 16862</td>
<td>04/04/06</td>
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</table>

(ii) In the New Mexico’s Program Revision Application package for RCRA Clusters XIII through XVIII, the State indicates that it is seeking authorization for breaking and crushing of universal waste lamps under the universal waste program, in order to reduce their volume to facilitate management or transport to destination facilities (see 75 FR 65432, Oct. 25, 2010). However, EPA did not authorize the breaking and crushing of universal waste lamps. The Agency needs further analysis to determine if the breaking and crushing of universal waste lamps will be authorized as part of the State’s authorized program. Therefore, in this codification notice EPA has determined to exclude the lamp crushing provisions from this codification.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the State of New Mexico, signed by the EPA Regional Administrator on October 12, 2010, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(7) Program Description. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.
§ 272.1651 New York State-Administered Program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), New York has final authorization for the following elements as submitted to EPA in New York's base program application for final authorization which was approved by EPA effective on May 29, 1986. Subsequent program revision applications were approved effective on July 3, 1989, May 7, 1990, October 29, 1991, May 22, 1992, August 28, 1995, October 14, 1997, January 15, 2002, March 14, 2005, and August 31, 2009. (NOTE: Both the Federal and State requirements for the NY State Public Utilities Project XL, which were authorized effective August 31, 2009, will, unless extended, expire on May 24, 2011.)

(b) The State of New York has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State statutes and regulations.


(ii) [Reserved]

(2) EPA considered the following statutes and regulations in evaluating the State program but is not incorporating them herein for enforcement purposes:

(i) Environmental Conservation Laws (ECL), 1997 Replacement Volume, as revised by the 2004 Cumulative Pocket Part: sections 1–0303(18), 3–0301(1) (Introductory paragraph); 3–0301(1)(a) and (b); 3–0301(1)(m); 3–0301(1)(o); 3–0301(1)(w); 3–0301(1)(x); 3–0301(1)(cc); 3–0301(2) introductory paragraph; 3–0301(2)(a), (b), (d) through (j), (1), (m) and (q); 3–0301(2)(z); 3–0301(4); 19–0301(1) (except 19–0301(c), (e) and (f)); 19–0303(1) through (3); 19–0304; 27–0105; 27–0701; 27–0703; 27–0705; 27–0706 (except 27–0706(2–c)); 27–0711; 27–0900 through 27–0908; 27–0909 (except 27–0909(5)); 27–0910 through 27–0922; 27–1105; 70–0101; 70–0103; 70–0105 (except 70–0105(3) and 70–0105(6)); 70–0107(1) and (2); 70–0107(3) introductory paragraph; 70–0107(3)(1); 70–0109; 70–0113; 70–0115 (except (2)(c) and (d)); 70–0117 (except 70–0117(5)–(7)); 70–0119; 70–0121; 71–0301; 71–1719; 71–2705; 71–2707; 71–2708 through 71–2715; 71–2717; 71–2720; and 71–2727.

(ii) [Reserved]

(iii) McKinney’s Consolidated Laws of New York, Book 1, Executive Law (EL), Article 6: Section 102.

(iv) McKinney’s Consolidated Laws of New York, Book 46, Public Officers Law (POL), as amended through 2004: Sections 87 and 89.


(vi) Title 6, New York Codes, Rules and Regulations (6 NYCRR), Volume A-2A, Hazardous Waste Management System, as amended through September 5, 2006: Sections 372.1(f); 373–373.1(f) and (q); 373–1.4(d through (f); 373–1.6(c); 621.1 through 621.1.
(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, are not incorporated by reference and are not federally enforceable:


(ii) Environmental Conservation Laws (ECL), 1997 Replacement Volume, as revised by the 2006 Cumulative Pocket Part: Section 27–1109(6).

(iii) Title 6, New York Codes, Rules and Regulations (6 NYCRR), Volume A–2A, Hazardous Waste Management System, as amended through September 5, 2006: Sections 370.2(b)(92) “Household hazardous waste”; 370.2(b)(93) “Household collection facility”; 371.4(e); 372.1(e)(9); 372.2(b)(5)(ii); 372.3(a)(1); 372.3(a)(4); 372.3(b)(6)(iv); 372.3(d)(3); 373–1.1(d)(1)(x); 373–1.4(c); 373–2.5(b)(3)(ii)(d); 373–2.5(b)(3)(ii)(e); 373–2.15(a)(2); 373–3.5(b)(3)(ii)(d); 373–3.5(b)(3)(ii)(e); 374–3.4(a)(2); and 374.4(f).

(iv) At 371.4(c), New York retains K064, K065, K066, K090 and K091 as hazardous wastes while EPA has removed them from the table at 40 CFR 261.32 and no longer regulates them as hazardous wastes (64 FR 56469; October 20, 1999).

(v) Throughout New York’s hazardous waste regulations, the State cross-references Part 364, which sets forth additional transporter requirements including permit and liability requirements (for examples, see 6 NYCRR sections 372.2(b)(8), 373–1.7(h)(3), 374–3.3(i)(1) and (2), 374–3.4(a), 374–3.6(a)(1) and Appendix 30 Instructions for Generators/Item 8). The transporter permit and liability requirements are broader in scope than the Federal program.

(vi) New York did not adopt an analog to 40 CFR 261.4(g) that excludes certain dredged materials from the State definition of hazardous waste. Instead, the State subjects these materials to full regulation as hazardous wastes.

(vii) New York State regulations do not incorporate the Mineral Processing Secondary Materials Exclusion at 40 CFR 261.4(a)(17) and the related changes affecting 40 CFR 261.2(c)(3) and (c)(4)/Table, and 40 CFR 261.2(e)(1)(iii). Since New York did not adopt the exclusion at 40 CFR 261.4(a)(17) the State has a broader in scope program because the effect is to include materials that are not considered solid waste by EPA.

(viii) At 373–4, New York implements a Household Hazardous Waste program, whereas the Federal program excludes household waste from regulation as hazardous waste at 261.4(b)(1).

(ix) The following New York provisions are broader in scope because they include requirements associated with the regulation of PCB waste as a state-only hazardous waste: 372.1(e)(9) and 376.1(g)(1)(i), 376.4(f). PCB wastes are regulated under the Federal Toxic Substances Control Act (TSCA) at 40 CFR part 761 rather than under the Federal RCRA program.

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 2 and the State of New York, signed by the Commissioner of the State of New York Department of Environmental Conservation on July 20, 2001, and by the EPA Regional Administrator on January 16, 2002, although not incorporated by reference, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(6) Program Description. The Program Description and any other materials
§ 272.1751 North Dakota State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), North Dakota has final authorization for the following elements as submitted to EPA in North Dakota's base program application for final authorization which was approved by EPA effective on October 19, 1984. Subsequent program revision applications were approved effective on August 24, 1990, July 6, 1992, June 6, 1994, March 20, 2000, November 25, 2005, and April 14, 2008.

(b) The State of North Dakota has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations. (1) The North Dakota statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the North Dakota statutes that are incorporated by reference from the Matthew Bender & Company Inc., P. O. Box 7587, Charlottesville, VA. 22906-7587, phone number: (800) 833-9844. You may obtain copies of the North Dakota regulations that are incorporated by reference in this paragraph from the North Dakota Legislative Counsel, Second Floor, State Capitol, 600 E Boulevard, Bismarck ND 58505, phone: (701) 328-2916. You may inspect a copy at EPA Region 8, from 7 a.m. to 4 p.m., 1595 Wynkoop Street, Denver, CO, 80202, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(ii) EPA considered the following statutes and regulations in evaluating the State program but is not incorporating them herein for enforcement purposes:


(ii) North Dakota Century Code, 2002 Replacement, Volume 4A, Chapter 23-01 “Department of Health” Section 23-01-04.1 (except (6)).

(iii) North Dakota Century Code, Volume 4A, 2002 Replacement, as amended by the 2005 Pocket Supplement. Chapter 23-20.3 “Hazardous Waste”: Sections 23-20.3-01, (except (5) and (6)); 23-20.3-02, (except (1), (9), (11), (12), and (17)); 23-20.3-03; 23-20.3-04; 23-20.3-05(3), (5), (6), and (8); 23-20.3-06; 23-20.3-07; 23-20.3-08; 23-20.3-09; and 23-20.3-10.


(3) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the authorized program, are not incorporated by reference and are not federally enforceable:


(iv) North Dakota’s hazardous waste regulations set forth additional transporter requirements including permit requirements at 33–24–04–02. The transporter permit requirements are broader in scope than the federal program.

(4) Unauthorized State Amendments. (i) The authorized provisions at section 33–24–24, as amended through December 1, 2003 include amendments that are not approved by EPA. Such unauthorized amendments are not part of the State’s authorized program and are, therefore, not federally enforceable. Thus, notwithstanding the language in the North Dakota hazardous waste regulations incorporated by reference at paragraph (c)(1)(i) of this section, EPA will enforce the State regulations that are actually authorized by EPA. The effective dates of the State’s authorized provisions are listed in the following table.

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<th>State citation</th>
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<td>33–24–05–421 ...</td>
<td>Applicability of Definitions.</td>
<td>12/1/91</td>
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<tr>
<td>33–24–06–17.2.(g)</td>
<td>Contents of Permit Application.</td>
<td>1/1/84</td>
</tr>
</tbody>
</table>

(ii) The actual State regulatory text authorized by EPA (i.e., without the unauthorized amendments) is available as a separate document, Addendum to the EPA Approved North Dakota Statutory and Regulatory Requirements Applicable to the Hazardous Waste Management Program, July 2006. This document is available from EPA Region 8, from 9 a.m. to 4 p.m., 1595 Wynkoop Street, Denver, Colorado 80202.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 8 and the State of North Dakota, signed by the State of North Dakota State Department of Health on June 6, 2003, and by the EPA Regional Administrator on August 29, 2003, although not incorporated by reference, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921, et seq.


(7) Program Description. The Program Description and any other materials
Environmental Protection Agency

§ 272.1801

submitted as supplements thereto, although not incorporated by reference, are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921, et seq.

[73 FR 8615, Feb. 14, 2008]

§§ 272.1752–272.1799 [Reserved]

Subpart KK—Ohio

§ 272.1800 State authorization.

(a) The State of Ohio is authorized to administer and enforce a hazardous waste management program in lieu of the Federal program under subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6921 et seq., subject to the Hazardous and Solid Waste Amendments of 1984 (HSWA) (Pub. L. 98–616, November 8, 1984), 42 U.S.C. 6926 (c) and (g). The Federal program for which a State may receive authorization is defined in 40 CFR part 271. The State’s program, as administered by the Ohio Environmental Protection Agency, was approved by EPA pursuant to 42 U.S.C. 6926(b) and part 271 of this chapter. EPA’s approval of Ohio’s base RCRA program was effective on June 30, 1989 (see 54 FR 27173), June 7, 1991 (see 56 FR 28088). (b) Ohio is authorized to implement certain HSWA requirements in lieu of EPA. EPA has explicitly indicated its intent to allow much action in a FEDERAL REGISTER notice granting Ohio authorization on June 7, 1991 (see 56 FR 28088).

§ 272.1801 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Ohio has final authorization for the following elements submitted to EPA in Ohio’s program application for final authorization and approved by EPA effective on June 30, 1989 (see 54 FR 27173), June 7, 1991 (see 56 FR 14203), and August 19, 1991 (see 56 FR 28088).

(a) The following Ohio regulations are incorporated by reference and codified as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a). Ohio Administrative Code, volume 4, chapter 3745, rules: 49–031; 50–01; 50–03; 50–10; 50–11; 50–31 through 50–32; 50–40 through 50–44(C)(3)(j); 50–44(C)(4) through 50–44(C)(4)(k); 50–44(C)(5) through 50–44(C)(5)(i); 50–44(C)(6) through 50–44(C)(7)(j); 51–03(C)(2)(b)(ii); 51–05 (D) and (E); 51–04 through 51–05; 51–06(A)(1) through 51–06(A)(3)(g); 51–06(B) through 52–20(F); 52–20 Appendix I through 52–34(F); 52–40 through 52–44; 52–50 through 53–10; 53–11(D) through 53–20(H); 53–21 through 54–99; 55–32 through 55–99; 56–20 through 56–31; 56–33 (A) and (B); 56–50 through 56–60; 56–70 through 56–83; 57–01 through 57–14(B); 57–14(E); 57–15 through 57–18; 57–40 through 58–40; 58–42; 58–43 through 58–44; 58–45(A) through 58–45(E); 58–46; 58–49 through 58–54; 58–60 through 65–01(C); 65–01(E); 65–10 through 68–14(C); 68–14(F); 68–15; 68–15.


through 68–52; 68–70 through 68–83; 68–011(A) through 68–011(E); 69–01 through 69–30 (OAC June 30, 1990, as supplemented by 1990–1991 Ohio Monthly Record, pages 70–80 (July 1990)). Copies of the Ohio regulations that are incorporated by reference in this paragraph are available from Banks-Baldwin Law Publishing Company, P.O. Box 1974, University Center, Cleveland, Ohio 44106–8697. Customer Service Department.

(2) The following statutory provisions and regulations concerning State enforcement, although not codified herein for enforcement purposes, are part of the authorized State program:

(i) Ohio Revised Code, title 1, chapter 119, sections: 01 through 06.1, and 07 through 13; Ohio Revised Code, title 1, chapter 149, sections 011, 43, and 44 (Banks-Baldwin, 1990); Ohio Revised Code, title 37, chapter 3734, sections: 01 through 05, 07, 09 through 14.1, 16 through 17, 20 through 22, and 31 through 99 (Banks-Baldwin, 1990).


(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not codified for enforcement purposes.

(i) Ohio Revised Code, Title 37, Chapter 3734, Sections: 06, 08, 18 through 19, and 23 through 30 (Page, 1987).

(ii) Ohio Administrative Code, Volume 4, Chapter 3745, Rules: 50–33 through 50–37, and 53–11(A) through 53–11(C) (OAC June 30, 1988).

(b) Memorandum of Agreement. The Memorandum of Agreement between EPA Region V and the Ohio Environmental Protection Agency signed by the EPA Regional Administrator on March 6, 1989, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(2) Supplemental “Attorney General’s Statements for Final Authorization,” and addenda to such Statements signed by the Attorney General of Ohio on December 30, 1988, and February 24, 1989, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(d) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto dated November 8, 1990, and December 11, 1990, are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(b) The State of Oklahoma has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6931, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State

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has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations.

(1) The Oklahoma statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the Oklahoma regulations that are incorporated by reference in this paragraph from the State’s Office of Administrative Rules, Secretary of State, P.O. Box 53390, Oklahoma City, OK 73152–3390; Phone number: 405–521–4911; Web site: http://www.sos.state.ok.us/oar/oar_welcome.htm. The statutes are available from West Publishing Company, 610 Opperman Drive, P.O. Box 64526, St. Paul, Minnesota 55164–6526; Phone: 1–800–328–4880; Web site: http://west.thomson.com.

You may inspect a copy at EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202 (Phone number (214) 665–8533), or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) [Reserved]

(2) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities:

(i) Oklahoma Environmental Crimes Act, as amended through 2007, 21 Oklahoma Statutes (O.S.) Sections 1230.1 et seq.

(ii) Oklahoma Open Meetings Act, as amended through 2007, 25 Oklahoma Statutes (O.S.) Sections 301 et seq.


(iv) Oklahoma Open Records Act, as amended through 2007, 51 Oklahoma Statutes (O.S.), Sections 214.1 et seq.

(v) Oklahoma Administrative Procedures Act, as amended through 2007, 75 Oklahoma Statutes (O.S.), Sections 250 et seq.

(vi) The Oklahoma Administrative Code (OAC), Title 252, Chapter 205, Hazardous Waste Management, effective July 1, 2008: Subchapter 1, Sections 252:205–1–1(b), 252:205–1–3(a) and (b), 252:205–1–4(a)–(d); Subchapter 3, Sections 252:205–3–2(a) introductory paragraph, 252:205–3–2(a)(1) and 252:205–3–2(a)(3); Subchapter 11, Section 252:205–11–3.

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(4) Unauthorized State Amendments.

The State’s adoption of the Federal rules listed in the following table is not
§ 272.1851 Oklahoma State-administered program: Final authorization.


(b) The State of Oklahoma has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations.

(1) The Oklahoma statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the Oklahoma regulations that are incorporated by reference in this paragraph from the State’s Office of Administrative Rules, Secretary of State, P.O. Box 53390, Oklahoma City, OK 73152-5390; Phone number: 405-521-4911; Web site: www.sos.state.ok.us/oar/oar__welcome.htm. The statutes are available from West Publishing Company, 610 Opperman Drive, P.O. Box 64356, St. Paul, Minnesota 55164-6356; Phone:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>Federal Register reference</th>
<th>Publication date</th>
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<tbody>
<tr>
<td>Toxicity Characteristics; Hydrocarbon Recovery Operations</td>
<td>55 FR 40834</td>
<td>10/5/90</td>
</tr>
<tr>
<td>Toxicity Characteristics; Chlorofluorocarbon Refrigerants</td>
<td>56 FR 3978</td>
<td>2/1/91</td>
</tr>
<tr>
<td>Administrative Stay for K069 Listing</td>
<td>56 FR 13406</td>
<td>4/2/91</td>
</tr>
<tr>
<td>Amendments to Interim Status Standards for Downgradient Ground-water Monitoring</td>
<td>56 FR 5910</td>
<td>2/13/91</td>
</tr>
<tr>
<td>Well Locations</td>
<td>56 FR 19951</td>
<td>5/1/91</td>
</tr>
<tr>
<td>Removal of Legally Obsolete Rules</td>
<td>56 FR 66365</td>
<td>12/23/91</td>
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<td>Methods Innovation: SW–846</td>
<td>63 FR 28556</td>
<td>5/26/98</td>
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<td>70 FR 34538</td>
<td>6/14/05</td>
</tr>
<tr>
<td></td>
<td>70 FR 44150</td>
<td>8/1/05</td>
</tr>
</tbody>
</table>

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the State of Oklahoma, signed by the EPA Regional Administrator on November 11, 2009, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(7) Program Description. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[75 FR 36549, June 28, 2010]
(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the State of Oklahoma, signed by the EPA Regional Administrator on March 11, 2011, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA. 42 U.S.C. 6921 et seq. The State’s adoption of the Federal rules listed in the following table is not approved by the EPA and are, therefore, not enforceable:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>Federal Register reference</th>
<th>Publication date</th>
</tr>
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<tbody>
<tr>
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<td>56 FR 19951</td>
<td>5/1/91</td>
</tr>
<tr>
<td>Amendments to Interim Status Standards for Downgradient Groundwater Monitoring Well Locations.</td>
<td>56 FR 66365</td>
<td>12/23/91</td>
</tr>
<tr>
<td>Removal of Legally Obsolete Rules</td>
<td>60 FR 33912</td>
<td>6/28/95</td>
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<tr>
<td>Mineral Processing Secondary Materials Exclusion.—Amendments to 40 CFR.</td>
<td>63 FR 28556</td>
<td>5/26/98</td>
</tr>
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<td>Methods Innovation: SW–846</td>
<td>70 FR 34538</td>
<td>6/14/05</td>
</tr>
<tr>
<td></td>
<td>70 FR 44150</td>
<td>8/1/05</td>
</tr>
</tbody>
</table>

| (6) Statement of Legal Authority. “Attorney General’s Statement for Final Authorization”, signed by the Attorney General of Oklahoma January 20, 1984 and revisions,
§§ 272.1852–272.1899


(7) Program Description. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

§§ 272.1852–272.1899 [Reserved]

Subpart MM—Oregon

§§ 272.1900–272.1949 [Reserved]

Subpart NN—Pennsylvania

§§ 272.1950–272.1999 [Reserved]

Subpart OO—Rhode Island

§§ 272.2000–272.2049 [Reserved]

Subpart PP—South Carolina

§§ 272.2050–272.2099 [Reserved]

Subpart QQ—South Dakota

§ 272.2100 [Reserved]


(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), South Dakota has final authorization for the following elements as submitted to EPA in South Dakota’s base program application for final authorization which was approved by EPA effective on November 2, 1984. Subsequent program revision applications were approved effective on June 17, 1991, November 8, 1993, March 11, 1994, September 23, 1996, June 8, 2000, May 24, 2004 and March 8, 2006.

(b) The State of South Dakota has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations. (1) The South Dakota regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the South Dakota regulations that are incorporated by reference in this paragraph are available from the South Dakota Legislative Research Council, 3rd Floor, State Capitol, 500 East Capitol Avenue, Pierre, SD 57501, (Phone: 605–773–3251).


(ii) [Reserved]

(2) EPA considered the following statutes and regulations in evaluating the State program but is not incorporating them herein for enforcement purposes:


(ii) SDCL, as amended, effective July 1, 2004, Title 15, Civil Procedure: Chapter 15–6, Rules of Procedure in Circuit Courts, section 15–6–24(a)–(c).
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(iv) SDCL, as amended, effective July 1, 2004, Title 21, Judicial Remedies: Chapter 21–8, Injunction, section 21–8–1.

(v) SDCL, as amended, effective July 1, 2004, Title 22, Crimes: Chapter 22–6, Authorized Punishments, sections 22–6–1 introductory paragraph and 22–6–1(6).


(vii) SDCL, as amended, effective July 1, 2004, Title 34, Public Health and Safety: Chapter 34–21, Radiation and Uranium Resources Exposure Control, section 34–21–2(7).


(ix) SDCL, as amended, effective July 1, 2004, Title 37, Trade Regulation, Chapter 37–29, Uniform Trade Secrets Act, section 37–29–1(4).

(x) Administrative Rules of South Dakota (ARSD), Article 74:08, Administrative Fees, effective August 29, 2004: Chapter 74:08:01, Fees for Records Reproduction, sections 74:08:01:01 through 74:08:01:07.

(3) The following statutory provisions are broader in scope than the Federal program, are not part of the authorized program, are not incorporated by reference and are not federally enforceable:


(ii) [Reserved]

(4) Unauthorized State Amendments. South Dakota has adopted but is not authorized for the following Federal final rules: (1) Removal of Legally Obsolete Rules (HSWA/non-HSWA) [60 FR 33912, 06/29/95]; (2) Imports and Exports of Hazardous Waste: Implementation of OECD Council Division (HSWA—Not delegable to States) [61 FR 16290, 04/12/96]; (3) Clarification of Standards for Hazard Waste Land Disposal Restriction Treatment Variances (HSWA) [62 FR 64504, 12/05/97]; and (4) Vacatur of Organobromide Production Waste Listings (HSWA) [65 FR 14472, 03/17/00]. Those Federal rules written under RCRA provisions that predate HSWA (non-HSWA) which the State has adopted, are not Federally enforceable. In contrast, EPA will continue to enforce the Federal HSWA standards for which South Dakota is not authorized until the State receives specific authorization from EPA.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 8 and the State of South Dakota, signed by the State of South Dakota Department of Natural Resources on June 6, 1996, and by the EPA Regional Administrator on June 25, 1996, although not incorporated by reference, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(7) Program Description. The Program Description and any other materials submitted as supplements thereto, although not incorporated by reference,

are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[71 FR 11534, Mar. 8, 2006]

§§ 272.2102–272.2149  [Reserved]

Subpart RR—Tennessee

§§ 272.2150–272.2199  [Reserved]

Subpart SS—Texas

§ 272.2200  [Reserved]

§ 272.2201 Texas State-Administered program: Final authorization.


(b) The State of Texas has primary responsibility for enforcing its hazardous waste management program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 3007, 3008, 3013, 7003 of RCRA, 42 U.S.C. 6927, 6928, 6934, 6973, and any other applicable statutory and regulatory provisions, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) State Statutes and Regulations.

(1) The Texas statutes and regulations cited in paragraph (c)(1)(i) of this section are incorporated by reference as part of the hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the Texas regulations that are incorporated by reference in this paragraph are available from West Group, 610 Opperman Drive, Eagan, 55123. Attention: Order Entry; Phone: 1-800-328-9352; Web site: http://west.thomson.com. You may inspect a copy at EPA Region 6 Library, 12th Floor, 1445 Ross Avenue, Dallas, Texas 75202–2733. Phone number: (214) 665-6444, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741–6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.


(ii) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities:

(1) Texas Health and Safety Code (THSC) Annotated, (Vernon, 2001); Chapter 361, The Texas Solid Waste Disposal Act, sections 361.002, 361.016, 361.017, 361.018, 361.023, 361.024, 361.029, 361.032, 361.033, 361.035, 361.036, 361.037(a), 361.061, 361.063, 361.0635, 361.064, 361.0641, 361.066(b) and (c), 361.067, 361.068, 361.069, 361.079, 361.080(a) and (b), 361.081, 361.083, 361.083, 361.083, 361.0881(c), 361.0885, 361.090, 361.095(b)–(f), 361.096, 361.097, 361.098, 361.099(a), 361.100, 361.101, 361.102 through 361.109, 361.113, 361.116, 361.272 through 361.275, 361.278, 361.301, 361.321(a) and (b), 361.321(c) (except the phrase “Except as provided by Section 361.322(a)”)), 361.321(d), 361.321(e) (except the phrase “Except as provided by Section 361.322(e)”)), 361.451, 361.501 through 361.506, and 361.509(a) introductory paragraph, (a)(11), (b), (c) introductory paragraph, and (c)(2); Chapter 371, Texas Oil Collection, Management, and Recycling Act, sections 371.002(b) and (c), 371.024(a), 371.024(c) and (d), 371.026(a) and (b), 371.028, and 371.043(b).

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(except 361.082(a) and (f)), 361.084, 361.085, 361.087(b), 361.088, 361.089, 361.114, and 361.271.

(iii) Texas Water Code (TWC), Texas Codes Annotated (Vernon, 2000), effective September 1, 1999, as amended: Chapter 5, sections 5.102 through 5.105, 5.112, and 5.351; Chapter 7, sections 7.032, 7.051(a), 7.052(c) and (d), 7.053 through 7.062, 7.064 through 7.069, 7.075, 7.101, 7.104, 7.105, 7.107, 7.110, 7.162, 7.163, 7.189, 7.190, 7.252(1), 7.351, 7.353; Chapter 26, section 26.011; and Chapter 27, sections 27.018 and 27.019.

(iv) Texas Water Code (TWC), Texas Codes Annotated (Vernon, 2002), effective September 1, 2001, as amended: Chapter 5, section 5.177; Chapter 7, sections 7.067 and 7.102.

(v) Texas Water Code (TWC), Texas Codes Annotated (Vernon, 2007), effective September 1, 2007, as amended: Chapter 5, sections 5.501 through 5.505, 5.509 through 5.512, 5.515 through 5.551; Chapter 7, sections 7.031, 7.052(a), 7.052(c) and (d), 7.102, 7.176, and 7.187; Chapter 26, sections 26.001(13), 26.039, 26.341 through 26.367; and Chapter 27, section 27.003.


(vii) Texas Administrative Code (TAC), Title 30, Environmental Quality, 1994, as amended, effective through January 1, 1994: Chapter 305, sections 305.91 through 305.93, 305.98, and 305.99.

(viii) Texas Administrative Code (TAC), Title 30, Environmental Quality, 1997, as amended, effective through January 1, 1997: Chapter 281, sections 281.17(f); Chapter 305, sections 305.29(b) through (d), 305.94 and 305.95, 305.97, 305.100, 305.101 (except 305.101(c)), 305.102, 305.103, and 305.105.

(ix) Texas Administrative Code (TAC), Title 30, Environmental Quality, 2008, as amended, effective through December 31, 2007: Chapter 39, sections 39.13 (except (10)), 39.105, 39.107, 39.109, 39.113 (except (10)); Chapter 50, sections 50.13, 50.19, 50.39, 50.113 (except (d)), 50.119, and 50.139; Chapter 55, sections 55.27 (except (b)), 55.201 (except as applicable to contested case hearings), and 55.211 (except as applicable to contested case hearings); Chapter 70, section 70.10; Chapter 281, sections 281.1 (except the clause “except as provided by * * * Prioritization Process”), 281.2 introductory paragraph, 281.2(4), 281.3(a) and (b), 281.5 (except the clause “Except as provided by * * * Discharge Permits”), the phrase “radioactive material”, and the phrase “subsurface area drip dispersal systems”), 281.17(d) (except the references to radioactive material licenses), 281.17(e), 281.18(a) (except for the sentence “For applications for radioactive * * * within 30 days.”), 281.19(a) (except the last sentence), 281.19(b) (except the phrase “Except as provided in subsection (c) of this section.”), 281.20, 281.21(a) (except the phrase “and the Texas Radiation Control Act * * * Chapter 401.”, the acronym “TRCA”, and the phrase “subsurface area drip dispersal systems”), 281.21(b), 281.21(c) (except the phrase “radioactive materials” in 281.21(c)(2)), 281.21(d), 281.22(a) (except the phrase “For applications for radioactive * * * to deny the license.”), and 281.22(b) (except the phrase “or an injection well,” in the first sentence and the phrase “For underground injection wells * * * the same facility or activity.”), 281.23(a), and 281.24; Chapter 305, sections 305.64(d) and (f), 305.66(c), 305.66(e) (except for the last sentence), 305.66(f) through (1), 305.125 (except the phrases “and 401 * * * regulation” and “and 32”), 305.125(1) and (3), 305.125(20), 305.127(1)(B)(i), 305.127(4)(A) and (C), 305.127(6), 305.401(a), 305.401(b) (except the text “§39.3 of this title (relating to Purpose) * * * §55.21 of this title (relating to Requests for Contested Case Hearings, Public Comment”), 305.401(d) through (h); and Chapter 335, sections 335.2(b), 335.43(b), 335.206, 335.391 through 335.393.

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(ii) Texas Administrative Code (TAC), Title 30, Environmental Quality, 2008, as amended, effective through
December 31, 2007; Chapter 305, sections 305.53 and 305.64(b)(4); Chapter 335, sections 335.321 through 335.332, Appendices I and II, and 335.401 through 412.

(4) Unauthorized State Amendments and Provisions. (i) The following authorized provisions of the Texas regulations include amendments published in the Texas Register that are not approved by EPA. Such unauthorized amendments are not part of the State’s authorized program and are, therefore, not Federally enforceable. Thus, notwithstanding the language in the Texas hazardous waste regulations incorporated by reference at paragraph (c)(1)(i) of this section, EPA will enforce the State provisions that are actually authorized by EPA. The effective dates of the State’s authorized provisions are listed in the Table below. The actual State regulatory text authorized by EPA (i.e., without the unauthorized amendments) is available as a separate document, Addendum to the EPA-Approved Texas Regulatory and Statutory Requirements Applicable to the Hazardous Waste Management Program, July, 2009. Copies of the document can be obtained from U.S. EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202.

(ii) Additionally, Texas has partially or fully adopted, but is not authorized to implement, the Federal rules that are listed in the following table. The EPA will continue to implement the Federal HSWA requirements for which Texas is not authorized until the State receives specific authorization for those requirements. The EPA will not enforce the non-HSWA Federal rules although they may be enforceable under State law. For those Federal rules that contain both HSWA and non-HSWA requirements, the EPA will enforce only the HSWA portions of the rules.

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<thead>
<tr>
<th>State provision (December 31, 2007, except as indicated)</th>
<th>Effective date of authorized provision</th>
<th>Unauthorized State amendments</th>
<th>Effective date</th>
</tr>
</thead>
<tbody>
<tr>
<td>335.2(c)</td>
<td>11/7/91</td>
<td>18 TexReg 2799</td>
<td>5/12/93</td>
</tr>
<tr>
<td>335.6(a)</td>
<td>7/29/92</td>
<td>18 TexReg 8216</td>
<td>11/23/93</td>
</tr>
<tr>
<td>335.6(c) introductory paragraph</td>
<td>7/29/92</td>
<td>22 TexReg 12060</td>
<td>12/25/97</td>
</tr>
<tr>
<td>335.6(g)</td>
<td>7/29/92</td>
<td>23 TexReg 10878</td>
<td>10/19/98</td>
</tr>
<tr>
<td>335.10(b)(22) (December 31, 2001)</td>
<td>7/27/88</td>
<td>17 TexReg 8010</td>
<td>11/27/92</td>
</tr>
<tr>
<td>335.24(b) introductory paragraph</td>
<td>3/1/96</td>
<td>21 TexReg 10983</td>
<td>11/20/96</td>
</tr>
<tr>
<td>335.24(c) introductory paragraph</td>
<td>3/1/96</td>
<td>23 TexReg 2605</td>
<td>10/19/98</td>
</tr>
<tr>
<td>335.41(c)</td>
<td>9/1/86</td>
<td>17 TexReg 8010</td>
<td>11/27/92</td>
</tr>
<tr>
<td>335.45(b)</td>
<td>9/1/86</td>
<td>21 TexReg 10983</td>
<td>11/20/96</td>
</tr>
<tr>
<td>335.204(b)(1)</td>
<td>5/28/96</td>
<td>16 TexReg 6065</td>
<td>11/7/91</td>
</tr>
<tr>
<td>335.204(b)(6)</td>
<td>5/28/96</td>
<td>16 TexReg 6065</td>
<td>11/7/91</td>
</tr>
<tr>
<td>335.204(c)(1)</td>
<td>5/28/96</td>
<td>16 TexReg 6065</td>
<td>11/7/91</td>
</tr>
</tbody>
</table>

Federal requirement | FEDERAL REGISTER reference | Publication date
### Environmental Protection Agency §272.2201

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Closure Permit Requirement and Closure Process (HSWA and Non-HSWA) (Checklist 174)</td>
<td>63 FR 56710</td>
<td>October 22, 1998</td>
</tr>
<tr>
<td>Organobromine Production Wastes; Petroleum Refining Wastes; Identification and Listing of Hazardous Waste; Land Disposal Restrictions (HSWA) (Checklist 187).</td>
<td>64 FR 36365</td>
<td>June 8, 2000</td>
</tr>
<tr>
<td>Zinc Fertilizers Made from Recycled Hazardous Secondary Materials (HSWA and Non-HSWA) (Checklist 200).</td>
<td>67 FR 48393</td>
<td>July 24, 2002</td>
</tr>
<tr>
<td>Modification of the Hazardous Waste Manifest System (HSWA and Non-HSWA) (Checklist 207).</td>
<td>70 FR 10776</td>
<td>March 4, 2005</td>
</tr>
<tr>
<td>Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment (Non-HSWA) (Checklist 209).</td>
<td>70 FR 44150</td>
<td>August 1, 2005</td>
</tr>
<tr>
<td></td>
<td>70 FR 45508</td>
<td>August 5, 2005</td>
</tr>
</tbody>
</table>

(iii) Texas has chosen not to adopt, and is not authorized to implement, the following optional Federal rules:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NESHAPS Second Technical Correction, Vacatur (Non-HSWA) (Checklist Rule 188.1).</td>
<td>66 FR 24270</td>
<td>May 14, 2001</td>
</tr>
<tr>
<td>Inorganic Chemical Manufacturing Waste Identification and Listing (HSWA/Non-HSWA) (Checklist Rule 195.1).</td>
<td>67 FR 17119</td>
<td>April 9, 2002</td>
</tr>
<tr>
<td>Land Disposal Restrictions: National Treatment Variance to Designate New Treatment Subcategories for Radioactively Contaminated Cadmium, Mercury-Containing Batteries and Silver-Containing Batteries (HSWA) (Checklist 201).</td>
<td>67 FR 62618</td>
<td>October 7, 2002</td>
</tr>
<tr>
<td>National Environmental Performance Track Program (Non-HSWA) (Checklist 204).</td>
<td>69 FR 21737</td>
<td>April 22, 2004</td>
</tr>
<tr>
<td>NESHAP: Surface Coating of Automobiles and Light-Duty Trucks (Non-HSWA) (Checklist 205).</td>
<td>69 FR 62217</td>
<td>October 25, 2004</td>
</tr>
<tr>
<td></td>
<td>69 FR 22601</td>
<td>April 26, 2004</td>
</tr>
</tbody>
</table>

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region VI and the State of Texas, signed by the Executive Director of the Texas Natural Resource Conservation Commission (TNRC) on March 10, 2009, and by the EPA Regional Administrator on April 22, 2009, is referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.

(7) Program Description. The Program Description and any other materials submitted as part of the original application or as supplements thereto are referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 et seq.
§§ 272.2202–272.2249 [Reserved]

Subpart TT—Utah

§ 272.2251 Utah State-Administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Utah has Final authorization for the following elements as submitted to EPA in Utah’s base program application for Final authorization which was approved by EPA effective on October 24, 1984. Subsequent program revision applications were approved effective on March 7, 1989; July 22, 1991; July 14, 1992; April 13, 1993; December 13, 1994; July 21, 1997; and March 15, 1999.

(b) State statutes and regulations.

(1) The Utah regulations cited in this paragraph are incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of the Utah regulations that are incorporated by reference in this paragraph are available from the Utah Department of Environmental Quality, 288 North 1460 West, Salt Lake City, Utah 84114–4880, Phone (801) 538–6776.


(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:


(iv) Utah Administrative Code revised as of January 3, 1989: R450–3.1.1(b) & (c) and R450–3–2.4(b).


(vi) Utah Administrative Code revised as of May 15, 1996: Section R315–15–1.1(j) & (k).

(3) The following statutory and regulatory provisions are broader-in-scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(ii) Utah Administrative Code revised as of February 15, 1996. EPA considers Utah’s listing of all F999 and some P999 wastes (specifically: nerve, military, and chemical agents) as more stringent than the Federal rule. To the extent that unused chemical agents, as produced, exhibit a hazardous waste reactivity characteristic, they are considered hazardous waste and, thus, are regulated under Federal rule. Utah’s listing of these wastes enhances the degree of regulatory control regarding these wastes. EPA also considers Utah’s rule as broader-in-scope than the federal rule for those F999 process wastes which do not exhibit a characteristic for hazardous waste and would not be regulated under Federal rule. R315–2–10(e)(1), 315–2–11(e) introductory paragraph and R315–2–11(e)(1) are broader-in-scope regarding these wastes.

(4) **Unauthorized State provisions:** (i) Although the Federal rules listed in the following table have been adopted by the State and have been included in the materials incorporated by reference in paragraph (b)(1) of this Section, EPA has not authorized the State for these rules at this time. While they may be enforceable under State law, they are not enforceable under RCRA:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of Legally Obsolete Rules (Non-HSWA provisions) (Revision Checklist 144).</td>
<td>60 FR 33912</td>
<td>6/29/95</td>
</tr>
<tr>
<td>Testing and Monitoring Activities Amendment III (Revision Checklist 158) ............</td>
<td>62 FR 32452</td>
<td>6/13/97</td>
</tr>
</tbody>
</table>

(ii) Additionally Utah has adopted but is not authorized to implement the HSWA rules that are listed below in lieu of EPA. EPA will continue to implement the Federal HSWA requirements for which Utah is not authorized until the State receives specific authorization for those requirements:

<table>
<thead>
<tr>
<th>Federal requirement</th>
<th>FEDERAL REGISTER reference</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of Legally Obsolete Rules (HSWA provisions) (Revision Checklist 144)</td>
<td>60 FR 33912</td>
<td>6/29/95</td>
</tr>
<tr>
<td>Land Disposal Restrictions—Phase IV (Revision Checklist 157) .................</td>
<td>62 FR 25998</td>
<td>5/12/97</td>
</tr>
<tr>
<td>Carbamate Production, Identification and Listing of Hazardous Waste; Land Disposal Restrictions (Conformance With the Carbamate Vacatur) (Revision Checklist 159).</td>
<td>62 FR 32974</td>
<td>6/17/97</td>
</tr>
</tbody>
</table>

(5) **Unauthorized State amendments.** The following authorized provisions of the Utah regulations include amendments published in the *Utah State Bulletin* that are not approved by EPA. Such unauthorized amendments are not part of the State’s authorized program and are, therefore, not Federally enforceable. Thus, notwithstanding the language in the Utah hazardous waste regulations incorporated by reference at §272.2251(b)(1), EPA will only enforce the authorized State provisions with the effective dates indicated in the table below. The actual State regulatory text authorized by EPA for the listed provisions is available as a separate document, Addendum to the EPA-Approved Utah Regulatory Requirements Applicable to the Hazardous Waste Management Program, March 1999. Copies of the document can be obtained from U.S. EPA Region VIII, 999 18th St., Suite 500, Denver, Colorado 80202–2466, phone (303) 312–6139.

<table>
<thead>
<tr>
<th>State provision</th>
<th>State reference</th>
<th>Unauthorized State amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td>R315–2–10(b)(2)(ii)</td>
<td>924/96</td>
<td>DAR 12647 5/29/92</td>
</tr>
<tr>
<td>R315–7–11 3(b)</td>
<td>1/3/89</td>
<td>DAR 12652 5/29/92</td>
</tr>
<tr>
<td>R315–7–12.6(g)</td>
<td>Base</td>
<td>DAR 09632 1/3/89</td>
</tr>
</tbody>
</table>

VerDate Mar<15>2010 11:36 Sep 04, 2012 Jkt 226173 PO 00000 Frm 00449 Fmt 8010 Sfmt 8010 Y:\SGML\226173.XXX 226173pmangrum on DSK3VPTVN1PROD with CFR
At R315–3–23(f)(3)(iv), Utah’s analog to 40 CFR 270.33(b)(3)(iv), the State has a printing error in its regulations. The State will fix this error in its next rule making. For the codification, the authorized version of the provision will also be included in the Addendum to the EPA-Approved Utah Regulatory Requirements Applicable to the Hazardous Waste Management Program, March 1999.

(6) Memorandum of Agreement. The Memorandum of Agreement between EPA Region VIII and the Utah Department of Environmental Quality, signed by the EPA Regional Administrator on October 4, 1994, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(8) Program description. The Program description and any other materials submitted as part of the original application or as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[66 FR 58971, Nov. 26, 2002]
approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the Wisconsin regulations (Wisconsin Administrative Code) that are incorporated by reference in this paragraph from: Reference Bureau, One East Main Street, Suite 200, Madison, Wisconsin 53701–2037. You may inspect a copy at EPA Region 5, from 8 a.m. to 4 p.m., 77 West Jackson Boulevard, Chicago, Illinois, 60604, or at the National Archives and Records Administration (NARA). For more information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal-register/ibrlocations.html.

(i) The Binder entitled “EPA-Approved Wisconsin Department of Natural Resources Regulatory and Statutory Requirements Applicable to the Hazardous Waste Program,” May 2009. Only those provisions that have been authorized by EPA are incorporated by reference. These regulatory provisions are listed in Appendix A to Part 272.

(ii) [Reserved]

(2) The following provisions provide the legal basis for the State’s implementation of the hazardous waste management program, but they are not being incorporated by reference and do not replace Federal authorities: Wisconsin Statutes, Sections 13.93(2m)(b)7, 19.21, 19.31, 19.32(2) and (5), 19.35(3) and (4), 19.36, 19.37(1) and (2), 23.32(1), 101.055, 141.05(47), 227.14, 227.51, 283.01(7) and (12), 283.11, 283.21(2), 283.31, 283.33, 287.07(1m)(a) and (am), 287.15, 287.16, 287.18, 289.22(1m) and (2), 289.25–289.38, 289.39(3), 289.39(6), 289.39, 289.41(1)(a), (b), (c) and (m), (3)(a)(5), (4) and (5)(d), (6) and (7), 289.61–289.68, 289.91–289.97, 291.01(7), (17), and (21), 291.05 (1)–(7), 291.11, 291.15, 291.21, 291.23, 291.25, 291.25(4), 291.37, 291.45–291.97, 291.97(1), 292, 292.11, 296.01(2)(c), 299.45(1)(a), 303.09 and 308.09. Copies of the Wisconsin Statutes are available from: Legislative Reference Bureau, One East Main Street, Suite 200, Madison, Wisconsin 53701–2037.

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the authorized program, and are not incorporated by reference:


(ii) [Reserved]

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 5 and the State of Wisconsin (WDNR), signed by the EPA Regional Administrator on October 23, 2008, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.


(6) Program Description. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 et seq.

[76 FR 26619, May 9, 2011]
APPENDIX A TO PART 272—STATE REQUIREMENTS

The following is an informational listing of the State and local requirements incorporated in part 272 of the Code of Federal Regulations:

ARIZONA

The statutory provisions include:


The regulatory provisions include:


ARKANSAS

The statutory provisions include:


Copies of the Arkansas statutes that are incorporated by reference are available from Michie Publishing, 1275 Broadway, Albany, New York 12204, Phone: (800) 223–1940.

The regulatory provisions include:

Arkansas Pollution Control and Ecology (APC&E) Commission Regulation No. 23, Hazardous Waste Management, as amended December 9, 2005, effective March 23, 2006. Please note that the 2006 APC&E Commission Regulation No. 23, is the most recent version of the Arkansas authorized hazardous waste regulations. For a few provisions, the authorized version is found in the APC&E Commission Regulation 23, dated January 21, 1996. Arkansas made subsequent changes to these provisions but these changes have not been authorized by EPA. The provisions from the January 21, 1996 regulations are noted below.

Chapter Two, Sections 3(b) introductory paragraph, 3(b)(2), 3(b)(4); Section 260—Hazardous Waste Management System—General—260.1, 260.3, 260.10 (except the definitions of “consolidation” and “mercury-containing device,” and the phrase “a written permit issued by the Arkansas Highway and Transportation Department authorizing a person to transport hazardous waste (Hazardous Waste Transportation Permit),” or “in the definition for “permit”), 260.11 (except 260.11(d)(2), (e)(2), (f)(2) and (g)(2)), 260.20(a), and (b), 260.21, 260.23, 260.30 through 260.33, 260.40, 260.41 and Appendix I.

Section 261—Identification and Listing of Hazardous Waste—261.1, 261.2, 261.3 (except 261.3(a)(2)(ii) and (e)), 261.4, 261.5, 261.6 (except (a)(5)), 261.7 through 261.11, 261.20 through 261.24, 261.30 through 261.33, 261.35, 261.38, Appendices I, VII and VIII.

Section 262 Standards Applicable to Generators of Hazardous Waste—262.10 (except 262.10(d)), 262.11, 262.12, 262.13 (except 262.13(c)), 262.20 (except 262.20(c)), 262.21, 262.22, 262.23, 262.24 (except 262.24(d)), 262.27, 262.30, 262.31 through 262.34, 262.35 (except the phrase “and the requirements of § 262.13(d) and § 262.10(d)” at 262.35(a)(2)), 262.40, 262.41 (except references to PCBs) (January 21, 1996), 262.42, 262.43, 262.50 through 262.58, 262.60 (except 262.60(e)), 262.70 and Appendix I.

Section 263—Standards Applicable to Transporters of Hazardous Waste—263.10 (except 263.10(d) and (e)), 263.11, 263.12, 263.20 (except 263.20(g)(4)), 263.21, 263.22, 263.30 and 263.31.
Idaho Department of Environmental Quality Rules and Regulations, Idaho Administrative Code, IDAPA 58, Title 1, Chapter 5, “Rules and Standards for Hazardous Waste”, as published on July 2008: sections 58.01.05.001; 58.01.05.002; 58.01.05.003; 58.01.05.004; 58.01.05.005; 58.01.05.006; 58.01.05.007; 58.01.05.008; 58.01.05.009; 58.01.05.010; 58.01.05.011; 58.01.05.012; 58.01.05.013; 58.01.05.014; 58.01.05.015; 58.01.05.016; 58.01.05.356.01; and 58.01.05.998.

Indiana

The regulatory provisions include:
Copies of the Indiana statutes that are incorporated by reference are available from West Publishing Company, 610 Opperman Drive, P.O. Box 64526, St. Paul, Minnesota 55164–6526.

The regulatory provisions include:

A. The statutory provisions include:


B. The regulatory provisions include:
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MISSOURI


The regulations where the authorized regulatory provisions are noted below by inclusion in parentheses: Title 26, New York Codes, Rules and Regulations, Volume A–2A, Hazardous Waste Management System—General: Sections 370.1(a) (except the phrase “or to pay the fee required by ARM 17.53.111 through (b)(137); 370.2(b)(139) through (b)(213); 370.2(b)(215); 370.2(b)(217) (except
SOUTH DAKOTA

The regulatory provisions include:


Copies of the South Dakota regulations that are incorporated by reference are available from the South Dakota Legislative Research Council, 3rd Floor, State Capitol, 500 East Capitol Avenue, Pierre, SD 57501, (Phone: 605-773-3251).

TEXAS

The statutory provisions include:

Texas Health and Safety Code (THSC) Annotated, (Vernon 2001): Chapter 361, The Texas Solid Waste Disposal Act, sections 361.003 (except (3), (4), (19), (27), (35), and (39)), 361.018(a), 361.0235, 361.066(a), 361.087, 361.093, 361.094, 361.095(a), 361.099(b), and 361.110; Chapter 371, The Texas Oil Collection, Management, and Recycling Act, sections 371.003, 371.024(b), 371.026(d), and 371.041.


Copies of the Texas statutes that are incorporated by reference are available from West Group, 610 Opperman Drive, Eagan, 55123, Attention: Order Entry; Phone: 1-800-328-9352; Web site: http://west.thomson.com.

The regulatory provisions include:

Texas Administrative Code, (TAC), Title 30, Environmental Quality, 2008, as amended, effective through December 31, 2007. Please note that the 2008 TAC, Title 30 is the most recent version of the Texas authorized hazardous waste regulations. For a few provisions, the authorized version is found in the TAC, Title 30, Environmental Quality dated January 1, 1994, January 1, 1997, December 31, 1999, or December 31, 2001. Texas made subsequent changes to these provisions but these changes have not been authorized by EPA. The provisions from earlier sets of regulations are noted in the table below.

Chapter 3, Section 3.2(25) “Person”; Chapter 20, Section 20.15; Chapter 35, Section 35.402(e); Chapter 39, Sections 39.5(g), 39.11, 39.15(a)(2), (b), (d)(4), and (g), 39.405(b)(1), 39.411 (except (b)(4)(B), (b)(10), (11), and (13), 39.503(d) (except the reference to 39.405(b) in 39.503(d) introductory paragraph); Chapter 56, Sections 56.25(b)(1) through (5), 55.152(a)(3), 55.152(b), 55.154, and 55.156(b)(1); Chapter 281, Section 281.3(c); Chapter 305, Subchapter A—General Provisions, Sections 305.1(a) (except the reference to Chapter 401, relative to Radioactive Materials); 305.2 introductory paragraph (except the references to Chapter 401, relative to Radioactive Materials and the reference to TWC 32.002); 305.21 (except the phrase “a post-closure order”); 305.26, (11), (12), (14), (15), (19), (20), (24), (26), (27), (31) and (40)–(42); 305.3.

Chapter 305, Subchapter B—Emergency Orders, Temporary Orders, and Executive Director Authorizations, Sections 305.29(a) (January 1, 1997); 305.30.

Chapter 305, Subchapter C—Application for Permit, Sections 305.41 (except the reference to Chapter 401, relative to Radioactive Materials, the reference to TWC Chapter 32, and the last sentence addressing post-closure orders); 305.42(a) (except the phrase “or who requests a post-closure order * * * to obtain a post-closure order”); 305.42(b) and (d); 305.43(b) (except the two phrases “or post-closure orders”); 305.44 (except (d), the phrase “or post-closure orders in (a)(1), and the phrase “or a post-closure order in (c)”; 305.45(a) (except (a)(7)(I) and (J), and the phrase “§305.54 of this title * * * Content of Applications,” in 305.45(a)(8)(C)); 305.45(b); 305.47 (except the phrases “or a recipient of a post-closure order” and “or order”); 305.50(a) introductory paragraph (a)(3) (except the last two sentences in 305.50(a)(2)); 305.50(a)(4) introductory paragraph and (a)(4)(A); 305.50(4)(B)–(D) (January 1, 1994); 305.50(a)(4)(G); 305.50(a)(5)(8), (13) and (14); 305.51.

Chapter 305, Subchapter D—Amendments, Modifications, Renewals, Transfers, Corrections, Revocations, and Suspension of Permits, Sections 305.61; 305.62(a) (except the phrase in the first sentence “§305.70 of this title * * * Solid Waste Class I Modifications” and the phrase in the fifth sentence “If the permittee requests a modification of a municipal solid waste permit * * * §305.70 of this title.”); 305.62(b); 305.62(c) (January 1, 1997); 305.62(d) (except (d)(6)); 305.62(e)–(h); 305.63(a) introductory paragraph (except first sentence); 305.63(a)(1) and (2); 305.63(a)(3) (except last sentence); 305.63(a)(4)–(6); 305.64(a); 305.64(b) (except (b)(4) and (b)(5)); 305.64(c); 305.64(e); 305.64(g) (December 31, 1999); 305.66(a) (except (a)(7)–(a)(9)); 305.66(d); 305.67(a) and (b); 305.69(a)–(h) (January 1, 1997); 305.68(i)–(k) (except (k) A–A.10); Chapter 305, Subchapter F—Permit Characteristics and Conditions, Sections 305.121 (except the phrases “radioactive material disposal” and “subsurface area drip dispersal systems”); 305.122(a)–(c); 305.124; 305.125 introductory paragraph; 305.125(2) and (4); 305.125(5) (except the last two sentences); 305.125(6) (January 1, 1997); 305.125 (7) and (b); 305.125(9) (except (i)(C)); 305.125(10) (except
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the phrase “and 32”); 305.125(11) (except the phrase “as otherwise required by Chapter 336 of this title” relative to Radioactive Substances in (11)(B)); 305.125(12); 305.125(13) (December 31, 2001); 305.125(14)–(19), and (21); 305.127 introductory paragraph; 305.127(1)(B)(11); 305.127(1)(E) and (F); 305.127(2); 305.127(3)(A) (except the last two sentences); 305.127(4)(B); 305.127(5)(C); 305.128;

Chapter 305, Subchapter G—Additional Conditions for Hazardous and Industrial Solid Waste Storage, Processing, or Disposal Permits, Sections 305.141 through 305.145; 305.146 introductory paragraph and (1) (January 1, 1997); 305.150;

Chapter 305, Subchapter H—Hazardous Waste Incinerator Permits, Sections 305.171 through 305.175;

Chapter 305, Subchapter J—Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses, Sections 305.181 through 305.184;

Chapter 305, Subchapter K—Research, Development and Demonstration Permits, Sections 305.191 through 305.194;

Chapter 305, Subchapter L—Groundwater Compliance Plan, Section 305.401(c); Chapter 305, Subchapter Q—Permits for Boilers and Industrial Furnaces Burning Hazardous Waste, Sections 305.57, 305.572 (except (a)(4)(d)); 305.573;

Chapter 324—Used Oil, Sections 324.1 through 324.6; 324.2 “Secondary containment” (January 1, 1997); 324.2(b) and (9); 324.3 (except 324.3(c)); 324.4; 324.6; 324.7; 324.11 through 324.14; 324.15 (January 1, 1997); 324.16; 324.21;

Chapter 335, Subchapter A—Industrial Solid Waste and Municipal Hazardous Waste in General, Sections 335.1 introductory paragraph (December 31, 2001); 335.1(1)–(4), (6)–(8), (10)–(12), (14)–(16), (18), (21), (22), (24)–(28), (31); 335.1(32) “Designated facility” (December 31, 2001); 335.1(33), (36)–(42), (43) (except for the phrase “or is used for neutralizing the pH of non-hazardous industrial solid waste”), (44)–(46), (48)–(53), (55)–(61), (64)–(73), (75)–(82), (83)–(86) (except the phrase “solid waste or” in each subsection), (87), (88)–(89) (except the phrase “solid waste or” in both subsections); 335.1(86) “Manifest” and (87) “Manifest document number” (December 31, 2001); 335.1(92), (93), (94) (except the phrase “solid waste or”); 335.1(108); 335.1(110) (except the phrase “solid waste or”), (111), (116), (117) (except the phrase “solid waste or”), (118)–(121), (123), (125)–(129), (131), (132), (133)(A)–(G) (except the phrase “Except for materials described in subparagraph (H) of this paragraph.” at (133)(D) and (G) introductory paragraphs), (133)(J) and (J), (134), (136)–(145) (except the phrase “solid waste or” at (136), (141) and (143)), (146) (except the phrase “or industrial solid”), (147), (148), (149) and (150) (except the phrase “or industrial solid” in both subsections), (152)–(154), (155) (except the phrase “solid waste or”), (156)–(161), (162) (except the phrase “or industrial solid”), (163) and (165) (except the phrase “solid waste or”); 335.2(a) and (c); 335.2(e)(g); 335.2(1) (except the phrases “or decontamination” and “or obtain an order in lieu of a post-closure permit 4 * * * of this section”); 335.2(j) and (1); 335.4; 335.5 (except (d)); 335.6(a); 335.6(b) (January 1, 1997); 335.6(c); 335.6(d) (except the last sentence) (January 1, 1994); 335.6(e) (January 1, 1994); 335.6(f)(j); 335.7 (December 31, 1999); 335.8(a)(1) and (2); 335.8(a), (3); 335.9(a)(2) and (3) (January 1, 1997); 335.9(b) (January 1, 1994); 335.10(a) introductory paragraph and (a) (except references to “class 1 wastes”) (January 1, 1994); 335.10(a)(3) (except the phrase “unless the generator is identified in paragraph (2) of this section”) (December 31, 2001); 335.10(a)(4) (December 31, 2001); 335.10(a)(6); 335.10(b) (except 335.10(b)(5), (8), and (18)) (January 1, 1997); 335.10(b)(6), (8), (18) (January 1, 1994); 335.10(c) (except the phrase “the United States customs official,”) (December 31, 2001); 335.10(d) and (e) (December 31, 2001); 335.10(f); 335.11 (except 11(d)) (December 31, 2001); 335.12 (except 335.12(a)(5) and (d)); 335.13(a) (January 1, 1997); 335.13(c) and (d) (January 1, 1994); 335.13(e) and (f) (January 1, 1997); 335.13(g) (January 1, 1994); 335.14; 335.15 introductory paragraph (January 1, 1994); 335.15(i); 335.17(a); 335.18(a); 335.19 (except 335.19(d)); 335.20 through 335.22; 335.23 (except (2)); 335.23(2) (January 1, 1994); 335.24(a)–(t); 335.24(m) and (n); 335.29; 335.29(2) and (3) (December 31, 2001); 335.30; 335.31;

Chapter 335, Subchapter B—Hazardous Waste Management General Provisions, Sections 335.41(a)–(c); 335.41(d) (except (d)(1) and (d)(5)–(8)); 335.41(d)(1) (December 31, 2001); 335.41(e); 335.41(f) (except (f)(2)(A)(11)); 335.41(11); 335.41(g) and (h); 335.41(j); 335.43 and 335.44 (December 31, 1999); 335.45; 335.47 (except 335.47(b) and the second sentence in (c)(3)); 335.47(b) (December 31, 1999);

Chapter 335, Subchapter C—Standards Applicable to Generators of Hazardous Waste, Sections 335.61 (except (f)); 335.62; 335.63; 335.65; 335.66; 335.67 and 335.68 (December 31, 2001); 335.69 (except (1) and (m)); 335.70; 335.71 (January 1, 1994); 335.73 through 335.75; 335.76 (except 335.76(d) and (h)); 335.76(d) (December 31, 2001); 335.77; 335.78 (except (b), (d)(2), (e) introductory paragraph, (f)(2), and (g)(2)) (January 1, 1997);

Chapter 335, Subchapter D—Standards Applicable to Transporters of Hazardous Waste, Sections 335.91 (except (e)); 335.92; 335.93 (except (e)); 335.93(e) (December 31, 1999); 335.94 (except the phrase “owned or operated by a registered transporter” in (a) introductory paragraph);

Chapter 335, Subchapter E—Interim Standards for Owners and Operators of Hazardous
Utah Administrative Code effective February 15, 1996: Sections R315-1 except R315-1-1(a), R315-1-1(f) & (h) and R315-1-2(a); R315-2 except R315-2-3(d)(2), R315-2-5, R315-2-6, R315-2-10(e)(4) & (f), R315-3-1(b) & (c), R315-3-2, R315-3-25(d); R315-3 except R315-3-1(b) & (c), R315-3-3(b)(3), R315-3-3(c)(1)(3), R315-3-3(n)(9)(b)(iv), R315-3-11(a) & (b), R315-3-11(f), R315-3-13(a)(4), R315-3-16(b), R315-3-23(b)(1)(2), R315-3-23(c) & (d), R315-3-24 through R315-3-29, R315-3-34 and R315-3-36; R315-4 through R315-7, except R315-7-8(c)(12)(v), R315-7-18.3(d)(2)(e) & (f) A phrase “given the specific site conditions and the nature and extent of contamination”; R315-8 except R315-8-1(e)(10)(b)(v), R315-8-1.6(b), R315-8-12(b), R315-8-11.2(e) phrase “given the specific site conditions and the nature and extent of contamination”, R315-8-14.10(b); R315-9; R315-14 except R315-14-3, R315-14-4, and R315-14-7; R315-16 except R315-16-1.1(a)(4), R315-16-1.6, R 315-16-1.7(c), R315-16-1.7(g), R315-16-1.7(h)(4), R315-16-2.4(d), R315-16-2.6(e), R315-16-3.4(d), R315-16-3.5(e), R315-16-3.6(c)(2) word “lamp”, R315-16-3.10(a)(2) word “lamp”, R315-16-3.10(b)(2) word “lamp”, R315-16-3.12, R315-16-5.1(a); R315-50 except R315-50-9, R315-50-10, R315-50-12, and R315-50-13.


Copies of the Utah regulations that are incorporated by reference are available from the Utah Department of Environmental Quality, 288 North 1460 West, Salt Lake City, Utah 84114–4880, Phone (801) 538–6776.

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PART 273—STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

Sec. 273.1 Scope.
273.2 Applicability—batteries.
273.3 Applicability—pesticides.
273.4 Applicability—Mercury-containing equipment.
273.5 Applicability—lamps.
273.6-273.7 [Reserved]
273.8 Applicability—household and conditionally exempt small quantity generator waste.
273.9 Definitions.

Subpart A—General

§ 273.1 Scope.
(a) This part establishes requirements for managing the following:
(1) Batteries as described in 40 CFR 273.2;
(2) Pesticides as described in §273.3;
(3) Mercury-containing equipment as described in §273.4; and
(4) Lamps as described in §273.5.
(b) This part provides an alternative set of management standards in lieu of regulation under 40 CFR parts 260 through 272.

§ 273.2 Applicability—batteries.
(a) Batteries covered under 40 CFR part 273.
(b) Batteries not covered under 40 CFR part 273.

Subpart B—Standards for Small Quantity Handlers of Universal Waste

§ 273.10 Applicability.
§ 273.11 Prohibitions.
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§ 273.13 Waste management.
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Subpart C—Standards for Large Quantity Handlers of Universal Waste

§ 273.30 Applicability.
§ 273.31 Prohibitions.
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Subpart D—Standards for Universal Waste Transporters

§ 273.50 Applicability.
§ 273.51 Prohibitions.
§ 273.52 Waste management.
§ 273.53 Storage time limits.
§ 273.54 Response to releases.
§ 273.55 Off-site shipments.
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Subpart E—Standards for Destination Facilities

§ 273.60 Applicability.
§ 273.61 Off-site shipments.
§ 273.62 Tracking universal waste shipments.

Subpart F—Import Requirements

§ 273.70 Imports.

Subpart G—Petitions To Include Other Wastes Under 40 CFR Part 273

§ 273.80 General.
§ 273.81 Factors for petitions to include other wastes under 40 CFR part 273.

AUTHORITY: 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.
SOURCE: 60 FR 25542, May 11, 1995, unless otherwise noted.
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one or more of the characteristics identified in part 261, subpart C of this chapter.

(c) Generation of waste batteries. (1) A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).

(2) An unused battery becomes a waste on the date the handler decides to discard it.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36488, July 6, 1999]

§ 273.3 Applicability—pesticides.

(a) Pesticides covered under this part 273. The requirements of this part apply to persons managing pesticides, as described in §273.9, meeting the following conditions, except those listed in paragraph (b) of this section:

(1) Recalled pesticides that are:

(i) Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA Section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or

(ii) Stocks of a suspended or canceled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

(2) Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

(b) Pesticides not covered under 40 CFR part 273. The requirements of this part do not apply to persons managing the following pesticides:

(1) Recalled pesticides described in paragraph (a)(1) of this section, unless the person conducting the recall:

(i) Has not made a decision to discard (e.g., burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of “solid waste” under 40 CFR 261.2; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including this part 273. This pesticide remains subject to the requirements of FIFRA; or

(ii) Has made a decision to use a management option that, under 40 CFR 261.2, does not cause the pesticide to be a solid waste (i.e., the selected option is use (other than burning for energy recovery), or reclamation). Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including this part 273. This pesticide, including a recalled pesticide that is exported to a foreign
§ 273.4  

Applicability—Mercury-containing equipment.

(a) Mercury-containing equipment covered under this part 273. The requirements of this part apply to persons managing mercury-containing equipment, as described in §273.9, except those listed in paragraph (b) of this section.

(b) Mercury-containing equipment not covered under this part 273. The requirements of this part do not apply to persons managing the following mercury-containing equipment:

1. Mercury-containing equipment that is not yet a waste under part 261 of this chapter. Paragraph (c) of this section describes when mercury-containing equipment becomes a waste;

2. Mercury-containing equipment that is not a hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter;

3. Equipment and devices from which the mercury-containing components have been removed.

(c) Generation of waste mercury-containing equipment. (1) Used mercury-containing equipment becomes a waste on the date it is discarded.

(2) Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.

§ 273.5  

Applicability—Lamps.

(a) Lamps covered under this part 273. The requirements of this part apply to persons managing lamps as described in §273.9, except those listed in paragraph (b) of this section.

(b) Lamps not covered under this part 273. The requirements of this part do not apply to persons managing the following lamps:

1. Lamps that are not yet wastes under part 261 of this chapter as provided in paragraph (c) of this section.

2. Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.

(c) Generation of waste lamps. (1) A used lamp becomes a waste on the date it is discarded.

(2) An unused lamp becomes a waste on the date the handler decides to discard it.

§ 273.8  

Applicability—household and conditionally exempt small quantity generator waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of this part:

1. Household wastes that are exempt under §261.4(b)(1) of this chapter and are also of the same type as the universal wastes defined at §273.9; and/or

2. Conditionally exempt small quantity generator wastes that are exempt under §261.5 of this chapter and are also of the same type as the universal wastes defined at §273.9.

(b) Persons who commingle the wastes described in paragraphs (a)(1) and (a)(2) of this section together with universal waste regulated under this part must manage the commingled waste under the requirements of this part.

§ 273.9  

Definitions.

Ampule means an airtight vial made of glass, plastic, metal, or any combination of these materials.

Battery means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as
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may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

Destination facility means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in § 273.13 (a) and (c) and § 273.33 (a) and (c). A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.


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.

Lamp, also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

Large Quantity Handler of Universal Waste means a universal waste handler (as defined in this section) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000 kilogram limit is met or exceeded.

Mercury-containing equipment means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.

On-site means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that 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, are also considered on-site property.

Pesticide means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(a) Is a new animal drug under FFDCA section 201(w), or
(b) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or
(c) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this section.

Small Quantity Handler of Universal Waste means a universal waste handler (as defined in this section) who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.

Thermostat means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 40 CFR 273.13(c)(2) or 273.33(c)(2).

Universal Waste means any of the following hazardous wastes that are subject to the universal waste requirements of this part 273:

1. Batteries as described in § 273.2;
2. Pesticides as described in § 273.3;
3. Mercury-containing equipment as described in § 273.4; and
4. Lamps as described in § 273.5.

Universal Waste Handler:

(a) Means:
1. A generator (as defined in this section) of universal waste; or
2. The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends
universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(b) Does not mean:

(1) A person who treats (except under the provisions of 40 CFR 273.13 (a) or (c), or 273.33 (a) or (c)), disposes of, or recycles universal waste; or

(2) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

Universal Waste Transfer Facility means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

Universal Waste Transporter means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.


Subpart B—Standards for Small Quantity Handlers of Universal Waste

§ 273.10 Applicability.

This subpart applies to small quantity handlers of universal waste (as defined in 40 CFR 273.9).

[64 FR 36489, July 6, 1999]

§ 273.11 Prohibitions.

A small quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.17; or by managing specific wastes as provided in 40 CFR 273.13.

§ 273.12 Notification.

A small quantity handler of universal waste is not required to notify EPA of universal waste handling activities.

§ 273.13 Waste management.

(a) Universal waste batteries. A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

(3) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 40 CFR part 262.
(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste pesticides. A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of paragraph (b)(1) of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (b)(1) of this Section; or

(3) A tank that meets the requirements of 40 CFR part 265 subpart J, except for 40 CFR 265.197(c), 265.200, and 265.201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A small quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from the container to a container that meets the requirements of 40 CFR 262.34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and
§ 273.14 Labeling/marking.

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste—Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:
  (1) The label that was on or accompanied the product as sold or distributed; and
  (2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:
  (1) (i) The label that was on the product when purchased, if still legible;
       (ii) If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;
       (iii) If using the labels described in paragraphs (c)(1) (i) and (ii) of this section is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and
  (2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s);”

(d)(1) Universal waste mercury-containing equipment (i.e. each device), or a container in which the equipment is

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and

(4) (i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:
  (A) Mercury or clean-up residues resulting from spills or leaks and/or
  (B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.
§ 273.18 Off-site shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place...
§ 273.19 Tracking universal waste shipments.

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

§ 273.20 Exports.

A small quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in 40 CFR 262.58(a)(1) (in which case the handler is subject to the requirements of 40 CFR part 262, subpart H) must:

(a) Comply with the requirements applicable to a primary exporter in 40 CFR 262.53, 262.56(a) (1) through (4), (6), and (b) and 262.57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in subpart E of part 262 of this chapter; and

(c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

[60 FR 25542, May 11, 1995, as amended at 61 FR 16315, Apr. 12, 1996]

Subpart C—Standards for Large Quantity Handlers of Universal Waste

§ 273.30 Applicability.

This subpart applies to large quantity handlers of universal waste (as defined in §273.9).
§ 273.31 Prohibitions.
A large quantity handler of universal waste is:
(a) Prohibited from disposing of universal waste; and
(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.37; or by managing specific wastes as provided in 40 CFR 273.33.

§ 273.32 Notification.
(a)(1) Except as provided in paragraphs (a)(2) and (3) of this section, a large quantity handler of universal waste must have sent written notification of universal waste management to the Regional Administrator, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.
(2) A large quantity handler of universal waste who has already notified EPA of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this section.
(3) A large quantity handler of universal waste who manages recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) and who has sent notification to EPA as required by 40 CFR part 165 is not required to notify for those recalled universal waste pesticides under this section.
(b) This notification must include:
(1) The universal waste handler’s name and mailing address;
(2) The name and business telephone number of the person at the universal waste handler’s site who should be contacted regarding universal waste management activities;
(3) The address or physical location of the universal waste management activities;
(4) A list of all the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing equipment, and lamps); and
(5) A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time.

§ 273.33 Waste management.
(a) Universal waste batteries. A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:
(1) A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
(2) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):
(i) Sorting batteries by type;
(ii) Mixing battery types in one container;
(iii) Discharging batteries so as to remove the electric charge;
(iv) Regenerating used batteries;
(v) Disassembling batteries or battery packs into individual batteries or cells;
(vi) Removing batteries from consumer products; or
(vii) Removing electrolyte from batteries.
(3) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.
(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous electrolyte and/
or other waste and is subject to 40 CFR part 262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste pesticides. A large quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of paragraph (b)(1) of this section, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (b)(1) of this section; or

(3) A tank that meets the requirements of 40 CFR part 265 subpart J, except for 40 CFR 265.197(c), 265.200, and 265.201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A large quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that meets the requirements of 40 CFR 262.34;

(iv) Immediately transfers any mercury resulting from spills or leaks of broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A large quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an
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(a) air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and

(4) (i) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:

(A) Mercury or clean-up residues resulting from spills or leaks and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) Lamps. A large quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999; 70 FR 45522, Aug. 5, 2005]

§ 273.34 Labeling/marking.

A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste—Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:

(1) The label that was on or accompanied the product as sold or distributed; and

(2) The words “Universal Waste—Pesticide(s)” or “Waste—Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) If using the labels described in paragraphs (c) (1)(i) and (1)(ii) of this section is not feasible, another label prescribed or designated by the pesticide collection program; and

(2) The words “Universal Waste—Pesticide(s)” or “Waste—Pesticide(s).”
(d) (1) Mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Mercury-Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostat may be labeled or marked clearly with any of the following phrases: “Universal Waste—Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

(e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with any one of the following phrases: “Universal Waste—Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”

§ 273.35 Accumulation time limits.
(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

1. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
2. Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
3. Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;
4. Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
5. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
6. Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

§ 273.36 Employee training.
A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

§ 273.37 Response to releases.
(a) A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the material resulting from the release, and is subject to 40 CFR part 262.

§ 273.38 Off-site shipments.
(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place...
other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subpart D of this part while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:
   (1) Receive the waste back when notified that the shipment has been rejected, or
   (2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:
   (1) Send the shipment back to the originating handler, or
   (2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the appropriate regional EPA office of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The EPA regional office will provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

§ 273.39 Tracking universal waste shipments.

(a) Receipt of shipments. A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:
   (1) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;
   (2) The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);
   (3) The date of receipt of the shipment of universal waste.

(b) Shipments off-site. A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent must include the following information:
   (1) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;
   (2) The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats);
   (3) The date the shipment of universal waste left the facility.

(c) Record retention. (1) A large quantity handler of universal waste must
retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.

(2) A large quantity handler of universal waste must retain the records described in paragraph (b) of this section for at least three years from the date a shipment of universal waste left the facility.

§ 273.40 Exports.

A large quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in 40 CFR 262.58(a)(1) (in which case the handler is subject to the requirements of 40 CFR part 262, subpart H) must:

(a) Comply with the requirements applicable to a primary exporter in 40 CFR 262.53, 262.56(a)(1) through (4), (6), and (b) and 262.57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in subpart E of part 262 of this chapter; and

(c) Provide a copy of the EPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

[60 FR 25542, May 11, 1995, as amended at 61 FR 16316, Apr. 12, 1996]

Subpart D—Standards for Universal Waste Transporters

§ 273.50 Applicability.

This subpart applies to universal waste transporters (as defined in §273.9).

[64 FR 36490, July 6, 1999]

§ 273.51 Prohibitions.

A universal waste transporter is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.54.

§ 273.52 Waste management.

(a) A universal waste transporter must comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under 40 CFR 262, they may not be described by the DOT proper shipping name "hazardous waste, (l) or (s), n.o.s.", nor may the hazardous material's proper shipping name be modified by adding the word "waste".

§ 273.53 Storage time limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and must comply with the applicable requirements of subparts B or C of this part while storing the universal waste.

§ 273.54 Response to releases.

(a) A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of 40 CFR parts 260 through 272. If the waste is determined to be a hazardous waste, the transporter is subject to 40 CFR part 262.
§ 273.55 Off-site shipments.
(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.
(b) If the universal waste being shipped off-site meets the Department of Transportation’s definition of hazardous materials under 49 CFR 171.8, the shipment must be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR part 172.

§ 273.56 Exports.
A universal waste transporter transporting a shipment of universal waste to a foreign destination other than to those OECD countries specified in 40 CFR 262.58(a)(1) (in which case the transporter is subject to the requirements of 40 CFR part 262, subpart H) may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter must ensure that:
(a) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and
(b) The shipment is delivered to the facility designated by the person initiating the shipping.

§ 273.60 Applicability.
(a) The owner or operator of a destination facility (as defined in §273.9) is subject to all applicable requirements of parts 264, 265, 266, 268, 270, and 274 of this chapter, and the notification requirement under section 3010 of RCRA.
(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with 40 CFR 261.6(c)(2).

§ 273.61 Off-site shipments.
(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.
(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:
(1) Send the shipment back to the original shipper, or
(2) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.
(c) If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility must immediately notify the appropriate regional EPA office of the illegal shipment, and provide the name, address, and phone number of the shipper. The EPA regional office will provide instructions for managing the hazardous waste.
(d) If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.

§ 273.62 Tracking universal waste shipments.
(a) The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:
(1) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;
(2) The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);

(3) The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility must retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.

Subpart F—Import Requirements

§ 273.70 Imports.

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this part, immediately after the waste enters the United States, as indicated in paragraphs (a) through (c) of this section:

(a) A universal waste transporter is subject to the universal waste transporter requirements of subpart D of this part.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of subparts B or C, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of subpart E of this part.

(d) Persons managing universal waste that is imported from an OECD country as specified in 40 CFR 262.58(a)(1) are subject to paragraphs (a) through (c) of this section, in addition to the requirements of 40 CFR part 262, subpart H.

[60 FR 25542, May 11, 1995, as amended at 61 FR 16316]

Subpart G—Petitions To Include Other Wastes Under 40 CFR Part 273

§ 273.80 General.

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to this part may petition for a regulatory amendment under this subpart and 40 CFR 260.20 and 260.23.

(b) To be successful, the petitioner must demonstrate to the satisfaction of the Administrator that regulation under the universal waste regulations of 40 CFR part 273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by 40 CFR 260.20(b). The petition should also address as many of the factors listed in 40 CFR 273.81 as are appropriate for the waste or waste category addressed in the petition.

(c) The Administrator will evaluate petitions using the factors listed in 40 CFR 273.81. The Administrator will grant or deny a petition using the factors listed in 40 CFR 273.81. The decision will be based on the weight of evidence showing that regulation under 40 CFR part 273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

§ 273.81 Factors for petitions to include other wastes under 40 CFR part 273.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in subpart D of part 261 of this chapter, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in subpart C of part 261 of this chapter. (When a characteristic waste is added to the universal waste regulations of this part 273 by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in §260.10 of this chapter and §273.9 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries).) Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of this part 273;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial
(c) The waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to 40 CFR 273.13, 273.33, and 273.52; and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under 40 CFR part 273 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems (e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with Subtitle C of RCRA.

(g) Regulation of the waste or category of waste under 40 CFR part 273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36990, July 6, 1999]
(h) Granular road base—road base typically constructed by spreading aggregates in thin layers of 150 mm (6 inches) to 200 mm (8 inches) and compacting each layer by rolling over it with heavy compaction equipment. The aggregate base layers serve a variety of purposes, including reducing the stress applied to the subgrade layer and providing drainage for the pavement structure. The granular subbase forms the lowest (bottom) layer of the pavement structure and acts as the principal foundation for the subsequent road profile.

(i) Hot Mix Asphalt—a hot mixture of asphalt binder and size-graded aggregate, which can be compacted into a uniform dense mass. Hot mix asphalt also includes hot mix asphalt sub bases and hot mix asphalt bases.

(j) Microsurfacing—polymer-modified slurry seal.

(k) Portland cement concrete (PCC)—pavements consisting of a PCC slab that is usually supported by a granular (made of compacted aggregate) base or subbase.

(l) Pozzolanic—a siliceous material which when combined with calcium hydroxide in the presence of moisture exhibits cementitious properties.

(m) Slurry seal—refers to a material composed of emulsified asphalt, aggregate, and mineral fillers, such as Portland cement or lime which is applied as a thin coating on top of asphalt concrete or Portland cement concrete road surfaces.

(n) Stabilized base—a non-asphaltic road base composed of aggregate mixed with a pozzolanic material which increases the bearing strength of the material.

(o) Transportation construction projects—these activities relate to the construction of roads and highways and include bases, sub bases, road surfaces, bridges, abutments, shoulders, and embankments. They are not related to any residential use.

(p) Tri-State Mining District—the lead-zinc mining areas of Ottawa County, Oklahoma, Cherokee County of southeast Kansas and Jasper, Newton, Lawrence, and Barry Counties of southwest Missouri.

(q) Warm mix asphalt—refers to a mixture of an asphalt binder with aggregate, paraffin or esterified wax, and mineral additives that allow its use at temperatures much lower than hot mix asphalt.

§ 278.2 Applicability.

These requirements apply to chat from the Tri-State Mining District used in transportation construction projects carried out, in whole or in part, using Federal funds.

§ 278.3 Criteria for use of chat in Federally funded transportation projects.

Chat can be used in transportation construction projects carried out, in whole or in part, using Federal funds if:

(a) The chat is used in hot, warm or cold mix asphalt, in slurry seal, microsurfacing, or in epoxy seal; or

(b) The chat is used in Portland cement concrete, granular road base, flowable fill, stabilized road base or chip seal if, on a case by case basis either:

(1) Synthetic Precipitation Leaching Procedure (SPLP) tests are conducted on the proposed material using EPA SW-846 Method 1312, incorporated by reference in § 260.11 of this chapter, and the leachate testing results show that concentrations in the leachate do not exceed the National Primary Drinking Water Standards for lead and cadmium and the fresh water chronic National Recommended Water Quality Criterion for zinc of 120 μg/l; or

(2) EPA (or a State environmental Agency, if it chooses to do so) has determined, based on a site-specific risk assessment and after notice and opportunity for public comment, that the releases from the chat mixture in its proposed use will not cause an exceedance of the National Primary Drinking Water Standards for lead and cadmium and the fresh water chronic National Recommended Water Quality Criterion for zinc of 120 μg/l in surface water; or

(c) The use of chat has been authorized pursuant to a State or Federal response action.

§ 278.4 Certification and record-keeping requirements.

(a) Certification. For chat used under the jurisdiction of the U.S. Department
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of Interior, Bureau of Indian Affairs, the EPA certification below is not applicable. In other jurisdictions, the acquirer shall:

1. Submit a signed, written certification to the environmental regulatory agency in the State where the chat is to be used within 30 days of the date of acquisition. The certification shall contain the following:
   1. Location of origin of the chat;
   2. Amount of chat acquired; and
   3. Certification Statement: I certify under penalty of law that the chat used in this transportation project will meet EPA criteria found in § 278.3.

2. Transfer. If the chat is sold or otherwise transferred to another party, the acquirer shall provide a copy of the certification to the new owner of the chat. The new owner shall submit a certification according to paragraph (a)(1) of this section. The new certification supersedes all previous certifications.

3. Recordkeeping. The acquirer of chat, and any other person that receives the chat, will maintain copies of all of the following for three years; a copy of the certification following transmittal to the State department(s) of the environment, and, as appropriate; any SPLP testing results; or any site-specific risk assessments.

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

Subpart A—Definitions

Sec. 279.1 Definitions.

Subpart B—Applicability

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AUTHORITY: Sections 1006, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid
§ 279.1 Definitions.

Terms that are defined in §§260.10, 261.1, and 280.12 of this chapter have the same meanings when used in this part.

Aboveground tank means a tank used to store or process used oil that is not an underground storage tank as defined in §280.12 of this chapter.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer used oil collection center means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing tank means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or (2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank and if either (1) A continuous on-site installation program has begun, or

Household “do-it-yourselfer” used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household “do-it-yourselfer” used oil generator means an individual who generates household “do-it-yourselfer” used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Petroleum refining facility means an establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Re-refining distillation bottoms means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Used oil aggregation point means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used oil burner means a facility where used oil not meeting the specification requirements in §279.11 is burned for energy recovery in devices identified in §279.61(a).

Used oil collection center means any site or facility that is registered/licensed/permitted/recognized by a state/
county/municipal government to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of §279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

*Used oil fuel marketer* means any person who conducts either of the following activities:

1. Directs a shipment of off-specification used oil from their facility to a used oil burner; or

2. First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 of this part.

*Used oil generator* means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

*Used oil processor/re-refiner* means a facility that processes used oil.

*Used oil transfer facility* means any transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed pursuant to §279.20(b)(2). Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this part.

*Used oil transporter* means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) Characteristic hazardous waste. Mixtures of used oil and hazardous waste that solely exhibit one or more of the hazardous waste characteristics identified in subpart C of part 261 of this chapter and mixtures of used oil and hazardous waste that is listed in subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C are subject to:

(i) Except as provided in paragraph (b)(2)(iii) of this section, regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter rather than as used oil under this part, if the resultant mixture exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter; or

(ii) Except as specified in §279.10(b)(2)(iii) regulation as used oil under this part, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under subpart C of part 261 of this chapter.

(iii) Regulation as used oil under this part, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under §261.21 of this chapter.

(3) Conditionally exempt small quantity generator hazardous waste. Mixtures of used oil and conditionally exempt small quantity generator hazardous waste regulated under §261.5 of this chapter are subject to regulation as used oil under this part.

(c) Materials containing or otherwise contaminated with used oil. (1) Except as provided in paragraph (c)(2) of this section, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

(i) Are not used oil and thus not subject to this part, and

(ii) If applicable are subject to the hazardous waste regulations of parts 124, 260 through 266, 268, and 270 of this chapter.

(2) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under this part.

(3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this part.

(d) Mixtures of used oil with products. (1) Except as provided in paragraph (d)(2) of this section, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under this part.

(2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator’s own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of subpart C of this part.

(e) Materials derived from used oil. (1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

(i) Not used oil and thus are not subject to this part, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter as provided in §261.3(c)(2)(i) of this chapter.

(2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this part.

(3) Except as provided in paragraph (e)(4) of this section, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(i) Not used oil and thus are not subject to this part, and

(ii) Are solid wastes and thus are subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124.
of this chapter if the materials are listed or identified as hazardous wastes.

(4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this part.

(f) Wastewater. Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil are not subject to the requirements of this part. For purposes of this paragraph, “de minimis” quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) Used oil introduced into crude oil pipelines or a petroleum refining facility.

(1) Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this part. The used oil is subject to the requirements of this part prior to the mixing of used oil with crude oil or natural gas liquids.

(2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this part.

(3) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this part provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(4) Except as provided in paragraph (g)(5) of this section, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of this part only if the used oil meets the specification of §279.11. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this part.

(5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this part. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the waste water treatment system).

(6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this part.

(h) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to this part until it is transported ashore.

(1) Used oil containing PCBs. Used oil containing PCBs (as defined at 40 CFR 761.3) at any concentration less than 50 ppm is subject to the requirements of this part unless, because of dilution, it is regulated under 40 CFR part 761 as a used oil containing PCBs at 50 ppm or greater. PCB-containing used oil subject to the requirements of this part may also be subject to the prohibitions and requirements found at 40 CFR part 761, including §761.20(d) and (e). Used oil containing PCBs at concentrations of 50 ppm or greater is not subject to the requirements of this part, but is subject to regulation under 40 CFR part 761. No person may avoid these
provisions by diluting used oil containing PCBs, unless otherwise specifically provided for in this part or part 761 of this chapter.


§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the constituents and properties shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any allowable level and the person making that showing complies with §§279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

Table 1—Used Oil Not Exceeding Any Allowable Level Shown Below Is Not Subject to This Part When Burned for Energy Recovery

<table>
<thead>
<tr>
<th>Constituent/property</th>
<th>Allowable level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>5 ppm maximum.</td>
</tr>
<tr>
<td>Cadmium</td>
<td>2 ppm maximum.</td>
</tr>
<tr>
<td>Chromium</td>
<td>10 ppm maximum.</td>
</tr>
<tr>
<td>Lead</td>
<td>100 ppm maximum.</td>
</tr>
<tr>
<td>Flash point</td>
<td>100 °F minimum.</td>
</tr>
<tr>
<td>Total halogens</td>
<td>4,000 ppm maximum.</td>
</tr>
</tbody>
</table>

NOTE: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).

1 The allowable levels do not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see §279.10(b)).
2 Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under §279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.


§ 279.12 Prohibitions.

(a) Surface impoundment prohibition. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under parts 264 or 265 of this chapter.

(b) Use as a dust suppressant. The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in §279.82(c).

(c) Burning in particular units. Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in §260.10 of this chapter;

(2) Boilers, as defined in §260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of §279.23.

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.


Subpart C—Standards for Used Oil Generators

§ 279.20 Applicability.

(a) General. Except as provided in paragraphs (a)(1) through (a)(4) of this section, this subpart applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(1) Household “do-it-yourselfer” used oil generators. Household “do-it-yourselfer” used oil generators are not subject to regulation under this part.

(2) Vessels. Vessels at sea or at port are not subject to this subpart. For purposes of this subpart, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are
co-generators of the used oil and are both responsible for managing the waste in compliance with this subpart once the used oil is transported ashore. The co-generators may decide among them which party will fulfill the requirements of this subpart.

(3) Diesel fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this subpart.

(4) Farmers. Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to the requirements of this part.

(b) Other applicable provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (5) of this section:

(1) Generators who transport used oil, except under the self-transport provisions of §279.24(a) and (b), must also comply with subpart E of this part.

(ii) Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil.

(A) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

(B) Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act or other applicable Federal or state regulations governing the management or discharge of wastewaters;

(C) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(D) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to §279.10(c); or

(E) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to §279.23.

(3) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of §279.23, must also comply with subpart G of this part.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 must also comply with subpart H of this part.

(5) Generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

§ 279.21 Hazardous waste mixing.

(a) Mixtures of used oil and hazardous waste must be managed in accordance with §279.10(b).

(b) The rebuttable presumption for used oil of §279.10(b)(1)(ii) applies to used oil managed by generators. Under the rebuttable presumption for used oil of §279.10(b)(1)(ii), used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/ fluids and certain used oils removed from refrigeration units.

§ 279.22 Used oil storage.

Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this Subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits
§ 279.23 On-site burning in space heaters.

Generators may burn used oil in used oil-fired space heaters provided that:
(a) The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;
(b) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and
(c) The combustion gases from the heater are vented to the ambient air.


§ 279.24 Off-site shipments.

Except as provided in paragraphs (a) through (c) of this section, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

(a) Self-transportation of small amounts to approved collection centers. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and collected from household do-it-yourselfers to a used oil collection center provided that:
(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
(2) The generator transports no more than 55 gallons of used oil at any time; and
(3) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil.

(b) Self-transportation of small amounts to aggregation points owned by the generator. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:
(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;
(2) The generator transports no more than 55 gallons of used oil at any time; and
(3) The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

(c) Tolling arrangements. Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor-refiner to the generator for use as a lubricant, cutting oil, or coolant.
The contract (known as a “tolling arrangement”) must indicate:
(1) The type of used oil and the frequency of shipments;
(2) That the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and
(3) That reclaimed oil will be returned to the generator.

Subpart D—Standards for Used Oil Collection Centers and Aggregation Points

§ 279.30 Do-it-yourselfer used oil collection centers.

(a) Applicability. This section applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers. A DIY used oil collection center is any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

(b) DIY used oil collection center requirements. Owners or operators of all DIY used oil collection centers must comply with the generator standards in subpart C of this part.

§ 279.31 Used oil collection centers.

(a) Applicability. This section applies to owners or operators of used oil collection centers. A used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of §279.24(a). Used oil collection centers may also accept used oil from household do-it-yourselfers.

(b) Used oil collection center requirements. Owners or operators of all used oil collection centers must:
(1) Comply with the generator standards in subpart C of this part; and
(2) Be registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil.

§ 279.32 Used oil aggregation points owned by the generator.

(a) Applicability. This section applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of §279.24(b). Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(b) Used oil aggregation point requirements. Owners or operators of all used oil aggregation points must comply with the generator standards in subpart C of this part.

Subpart E—Standards for Used Oil Transporter and Transfer Facilities

§ 279.40 Applicability.

(a) General. Except as provided in paragraphs (a)(1) through (a)(4) of this section, this subpart applies to all used oil transporters. Used oil transporters are persons who transport used oil, persons who collect used oil from more than one generator and transport the collected oil, and owners and operators of used oil transfer facilities.

(1) This subpart does not apply to on-site transportation.

(2) This subpart does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil collection center as specified in §279.24(a).

(3) This subpart does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in §279.24(b).

(4) This subpart does not apply to transportation of used oil from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to the requirements of this part. Except as provided in paragraphs (a)(1) through (a)(3) of this section, this subpart does, however, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or...
other facilities where household do-it-yourselfer used oil is collected.

(b) Imports and exports. Transporters who import used oil from abroad or export used oil outside of the United States are subject to the requirements of this subpart from the time the used oil enters and until the time it exits the United States.

(c) Trucks used to transport hazardous waste. Unless trucks previously used to transport hazardous waste are emptied as described in §261.7 of this chapter prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the provisions of §279.10(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) Other applicable provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of this part as indicated in paragraphs (d)(1) through (5) of this section:

(1) Transporters who generate used oil must also comply with subpart C of this part;

(2) Transporters who process or re-refine used oil, except as provided in §279.41, must also comply with subpart F of this part;

(3) Transporters who burn off-specification used oil for energy recovery must also comply with subpart G of this part;

(4) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 must also comply with subpart H of this part; and

(5) Transporters who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.


§ 279.42 Notification.

(a) Identification numbers. Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) Mechanics of notification. A used oil transporter who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12 (To obtain ordering information for EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9346 or 703–920–9810); or

(2) A letter requesting an EPA identification number. Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(i) Transporter company name;

(ii) Owner of the transporter company;

(iii) Mailing address for the transporter;

(iv) Name and telephone number for the transporter point of contact;

§ 279.41 Restrictions on transporters who are not also processors or re-refiners.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in paragraph (b) of this section, used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in subpart F of this part.

(b) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the processor/re-refiner requirements in subpart F of this part.

(c) Transporters of used oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in subpart F of this part.

Environmental Protection Agency

§ 279.44 Rebuttable presumption for used oil.

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of §279.10(b)(1)(ii), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in §279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids
are recycled in any other manner, or disposed.  
(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Record retention. Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the transporter for at least 3 years.


§ 279.45 Used oil storage at transfer facilities.

Used oil transporters are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil transporters are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) Applicability. This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this part.

(b) Storage units. Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(c) Condition of units. Containers and aboveground tanks used to store used oil at transfer facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(d) Secondary containment for containers. Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.
§ 279.50 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or

(b) Delivers. Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor/re-refiner, or disposal facility. Records of each delivery must include:

(1) The name and address of the receiving facility or transporter;

(2) The EPA identification number of the receiving facility or transporter;

(3) The quantity of used oil delivered;

(4) The date of delivery;

(5)(i) Except as provided in paragraph (b)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter.

(ii) Intermediate rail transporters are not required to sign the record of delivery.

(c) Exports of used oil. Used oil transporters must maintain the records described in paragraphs (b)(1) through (b)(4) of this section for each shipment of used oil exported to any foreign country.

(d) Record retention. The records described in paragraphs (a), (b), and (c) of this section must be maintained for at least three years.

other used oil-derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of this subpart do not apply to:

1. Transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in §279.41; or
2. Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in §279.61(b).

(b) Other applicable provisions. Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (b)(5) of this section.

1. Processors/re-refiners who generate used oil must also comply with subpart C of this part;
2. Processors/re-refiners who transport used oil must also comply with subpart E of this part;
3. Except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) of this section, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with subpart G of this part. Processors/re-refiners burning used oil for energy recovery under the following conditions are not subject to subpart G of this part:
   i. The used oil is burned in an on-site space heater that meets the requirements of §279.23; or
   ii. The used oil is burned for purposes of processing used oil, which is considered burning incidentally to used oil processing;
4. Processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11 must also comply with subpart H of this part; and
5. Processors/re-refiners who dispose of used oil, including the use of used oil as a dust suppressant, also must comply with subpart I of this part.

§279.51 Notification.

(a) Identification numbers. Used oil processors and re-refiners who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) Mechanics of notification. A used oil processor or re-refiner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

1. A completed EPA Form 8700–12 (To obtain EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9346 or 703–920–9810); or
2. A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

1. Processor or re-refiner company name;
2. Owner of the processor or re-refiner company;
3. Mailing address for the processor or re-refiner;
4. Name and telephone number for the processor or re-refiner point of contact;
5. Type of used oil activity (i.e., process only, process and re-refine);
6. Location of the processor or re-refiner facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§279.52 General facility standards.

(a) Preparedness and prevention. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

1. Maintenance and operation of facility. Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.
2. Required equipment. All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could
require a particular kind of equipment specified in paragraphs (a)(2)(i) through (iv) of this section:

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(iii) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

(iv) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(3) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) Access to communications or alarm system. (i) Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in paragraph (a)(2) of this section.

(ii) If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in paragraph (a)(2) of this section.

(5) Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(6) Arrangements with local authorities. (i) The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

(A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(C) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(D) Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(ii) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(b) Contingency plan and emergency procedures. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

(1) Purpose and implementation of contingency plan. (i) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever
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there is a fire, explosion, or release of
used oil which could threaten human
health or the environment.

(2) Content of contingency plan. (i) The
contingency plan must describe the ac-
tions facility personnel must take to
comply with paragraphs (b) (1) and (6)
of this section in response to fires, ex-
plosions, or any unplanned sudden or
non-sudden release of used oil to air,
soil, or surface water at the facility.

(ii) If the owner or operator has al-
ready prepared a Spill Prevention, Con-
trol, and Countermeasures (SPCC) Plan
in accordance with part 112 of this
chapter, or part 1510 of chapter V of
this title, or some other emergency or
contingency plan, the owner or oper-
ator need only amend that plan to in-
corporate used oil management provi-
sions that are sufficient to comply
with the requirements of this part.

(iii) The plan must describe arrange-
ments agreed to by local police depart-
ments, fire departments, hospitals,
contractors, and State and local emer-
gency response teams to coordinate
emergency services, pursuant to para-
graph (a)(6) of this section.

(iv) The plan must list names, ad-
dresses, and phone numbers (office and
home) of all persons qualified to act as
emergency coordinator (see paragraph
(b)(5) of this section), and this list
must be kept up to date. Where more
than one person is listed, one must be
named as primary emergency coordi-
nator and others must be listed in the
order in which they will assume re-
ponsibility as alternates.

(v) The plan must include a list of all
emergency equipment at the facility
(such as fire extinguishing systems,
spill control equipment, communica-
tions and alarm systems (internal and
external), and decontamination equip-
ment), where this equipment is re-
quired. This list must be kept up to
date. In addition, the plan must in-
clude the location and a physical de-
scription of each item on the list, and
a brief outline of its capabilities.

(vi) The plan must include an evacu-
atation plan for facility personnel where
there is a possibility that evacuation
could be necessary. This plan must de-
scribe signal(s) to be used to begin
evacuation, evacuation routes, and al-
ternate evacuation routes (in cases
where the primary routes could be
blocked by releases of used oil or fires).

(3) Copies of contingency plan. A copy
of the contingency plan and all revi-
sions to the plan must be:

(i) Maintained at the facility; and

(ii) Submitted to all local police de-
partments, fire departments, hospitals,
and State and local emergency re-
sponse teams that may be called upon
to provide emergency services.

(4) Amendment of contingency plan.
The contingency plan must be re-
viewed, and immediately amended, if
necessary, whenever:

(i) Applicable regulations are revised;

(ii) The plan fails in an emergency;

(iii) The facility changes—in its de-
sign, construction, operation, mainte-
nance, or other circumstances—in a
way that materially increases the po-
tential for fires, explosions, or releases
of used oil, or changes the response
necessary in an emergency;

(iv) The list of emergency coordina-
tors changes; or

(v) The list of emergency equipment
changes.

(5) Emergency coordinator. At all
times, there must be at least one em-
ployee either on the facility premises
or on call (i.e., available to respond to
an emergency by reaching the facility
within a short period of time) with the
responsibility for coordinating all
emergency response measures. This
emergency coordinator must be thor-
oughly familiar with all aspects of the
facility's contingency plan, all oper-
ations and activities at the facility,
the location and characteristic of used
oil handled, the location of all records
within the facility, and facility layout.
In addition, this person must have the
authority to commit the resources
needed to carry out the contingency
plan.

Guidance: The emergency coordi-
nator’s responsibilities are more fully
spelled out in paragraph (b)(6) of this
section. Applicable responsibilities for
the emergency coordinator vary, de-
pending on factors such as type and va-
riety of used oil handled by the facil-
ity, and type and complexity of the fa-
cility.
(6) Emergency procedures. (i) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately:
   (A) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
   (B) Notify appropriate State or local agencies with designated response roles if their help is needed.
(ii) Whenever there is a release, fire, or explosion, the emergency 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 analyses.
(iii) 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).
(iv) 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:
   (A) If his assessment indicated 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
   (B) He must immediately notify either the government official designated as the on-scene coordinator for the 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.
(v) 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 used oil or hazardous waste at the facility. These measures must include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.
(vi) If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.
(vii) Immediately after an emergency, the emergency coordinator must provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.
(viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:
   (A) No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed; and
   (B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
(ix) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities that the facility is in compliance with paragraphs (b)(6)(viii)(A) and (B) of this section before operations are resumed in the affected area(s) of the facility.
(x) 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
§ 279.53 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a processing/re-refining facility is not hazardous waste under the rebuttable presumption of §279.10(b)(1)(ii), the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation.
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(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) Secondary containment for new aboveground tanks. New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) Labels. (1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words “Used Oil.”

(2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be labeled or marked clearly with the words “Used Oil.”

(g) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, an owner/operator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(h) Closure—(1) Aboveground tanks. Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:

(i) At closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.

(ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (h)(1)(i) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (§265.310 of this chapter).

(2) Containers. Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oils or residues of used oil must be removed from the site;
(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under part 261 of this chapter.


§ 279.55 Analysis plan.

Owners or operators of used oil processing and re-refining facilities must develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of §279.53 and, if applicable, §279.72. The owner or operator must keep the plan at the facility.

(a) Rebuttable presumption for used oil in §279.53. At a minimum, the plan must specify the following:

1. Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.
2. If sample analyses are used to make this determination:
   (i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:
   (A) One of the sampling methods in appendix I of part 261 of this chapter; or
   (B) A method shown to be equivalent under §§260.20 and 260.21 of this chapter;
   (ii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and
   (iii) The methods used to analyze used oil for the parameters specified in §279.53; and
3. The type of information that will be used to determine the halogen content of the used oil.

(b) On-specification used oil fuel in §279.72. At a minimum, the plan must specify the following if §279.72 is applicable:

1. Whether sample analyses or other information will be used to make this determination;
2. If sample analyses are used to make this determination:
   (i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:
   (A) One of the sampling methods in appendix I of part 261 of this chapter; or
   (B) A method shown to be equivalent under §§260.20 and 260.21 of this chapter;
   (ii) Whether used oil will be sampled and analyzed prior to or after any processing/re-refining;
   (iii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and
   (iv) The methods used to analyze used oil for the parameters specified in §279.72; and
3. The type of information that will be used to make the on-specification used oil fuel determination.

[57 FR 41612, Sept. 10, 1992, as amended at 71 FR 40280, July 14, 2006]

§ 279.56 Tracking.

(a) Acceptance. Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing/re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivered the used oil to the processor/re-refiner;
2. The name and address of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;
3. The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;
4. The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;
5. The quantity of used oil accepted; and
6. The date of acceptance.

(b) Delivery. Used oil processors/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/re-refiner, or
disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;
2. The name and address of the burner, processor/re-refiner or disposal facility who will receive the used oil;
3. The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;
4. The EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;
5. The quantity of used oil shipped; and
6. The date of shipment.

(c) Record retention. The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.57 Operating record and reporting.

(a) Operating record. (1) The owner or operator must keep a written operating record at the facility.
(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:
(i) Records and results of used oil analyses performed as described in the analysis plan required under §279.55; and
(ii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in §279.52(b).
(b) Reporting. A used oil processor/re-refiner must report to the Regional Administrator, in the form of a letter, on a biennial basis (by March 1 of each even numbered year), the following information concerning used oil activities during the previous calendar year:
(1) The EPA identification number, name, and address of the processor/re-refiner;
(2) The calendar year covered by the report; and
(3) The quantities of used oil accepted for processing/re-refining and the manner in which the used oil is processed/re-refined, including the specific processes employed.

§ 279.58 Off-site shipments of used oil.

Used oil processors/re-refiners who initiate shipments of used oil off-site must ship the used oil using a used oil transporter who has obtained an EPA identification number.

§ 279.59 Management of residues.

Owners and operators who generate residues from the storage, processing, or re-refining of used oil must manage the residues as specified in §279.10(e).

Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

§ 279.60 Applicability.

(a) General. The requirements of this subpart apply to used oil burners except as specified in paragraphs (a)(1) and (a)(2) of this section. A used oil burner is a facility where used oil not meeting the specification requirements in §279.11 is burned for energy recovery in devices identified in §279.61(a). Facilities burning used oil for energy recovery under the following conditions are not subject to this Subpart:
(1) The used oil is burned by the generator in an on-site space heater under the provisions of §279.23; or
(2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.
(b) Other applicable provisions. Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated below.
(1) Burners who generate used oil must also comply with subpart C of this part;
§ 279.61 Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in §260.10 of this chapter;

(2) Boilers, as defined in §260.10 of this chapter, that are identified as follows:
   (i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;
   (ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
   (iii) Used oil-fired space heaters provided that the burner meets the provisions of §279.23; or

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

(b)(1) With the following exception, used oil burners may not process used oil unless they also comply with the requirements of subpart F of this part.

(2) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

§ 279.62 Notification

(a) Identification numbers. Used oil burners which have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) Mechanics of notification. A used oil burner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12 (To obtain EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9946 or 703–920–9810); or

(2) A letter requesting an EPA identification number. Call the RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

   (i) Burner company name;
   (ii) Owner of the burner company;
   (iii) Mailing address for the burner;
   (iv) Name and telephone number for the burner point of contact;
   (v) Type of used oil activity; and
   (vi) Location of the burner facility.


§ 279.63 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of §279.10(b)(1)(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:

(1) Testing the used oil;

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or

(3) If the used oil has been received from a processor/re-refiner subject to regulation under subpart F of this part, using information provided by the processor/re-refiner.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]
§ 279.64 Used oil storage.

Used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil burners are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) Storage units. Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) Condition of units. Containers and aboveground tanks used to store oil at burner facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) Secondary containment for containers. Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
§ 279.65 Tracking.

(a) Acceptance. Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the burner;

(2) The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(3) The EPA identification number of the transporter who delivered the used oil to the burner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) Record retention. The records described in paragraph (a) of this section must be maintained for at least three years.

§ 279.66 Notices.

(a) Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

(1) The burner has notified EPA stating the location and general description of his used oil management activities; and

(2) The burner will burn the used oil only in an industrial furnace or boiler identified in §279.61(a).

(b) Certification retention. The certification described in paragraph (a) of this section must be maintained for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

§ 279.67 Management of residues.

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in §279.10(e).

Subpart H—Standards for Used Oil Fuel Marketers

§ 279.70 Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of this subpart:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or
(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in §279.11.

(b) The following persons are not marketers subject to this subpart:

(1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidentally burn used oil are not marketers subject to this Subpart;

(2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of §279.11.

(c) Any person subject to the requirements of this Subpart must also comply with one of the following:

(1) Subpart C of this part—Standards for Used Oil Generators;

(2) Subpart E of this part—Standards for Used Oil Transporters and Transfer Facilities;

(3) Subpart F of this part—Standards for Used Oil Processors and Re-refiners;

(4) Subpart G of this part—Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

§ 279.73 Notification.

(a) Identification numbers. A used oil fuel marketer subject to the requirements of this subpart who has not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12; or

(2) A letter requesting an EPA identification number. The letter should include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity (i.e., generator directing shipments of off-specification used oil to a burner).

§ 279.74 Tracking.

(a) Off-specification used oil delivery. Any used oil marketer who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records
§ 279.75

for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) On-specification used oil delivery. A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under §279.11 must keep a record of each shipment of used oil to the facility to which it delivers the used oil. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered;

(3) The date of shipment or delivery; and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under §279.72(a).

(c) Record retention. The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.


§ 279.75 Notices.

(a) Certification. Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

(1) The burner has notified EPA stating the location and general description of used oil management activities; and

(2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in §279.61(a).

(b) Certification retention. The certification described in paragraph (a) of this section must be maintained for three years from the date the last shipment of off-specification used oil is shipped to the burner.

Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

§ 279.80 Applicability.

The requirements of this subpart apply to all used oils that cannot be recycled and are therefore being disposed.

§ 279.81 Disposal.

(a) Disposal of hazardous used oils. Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this part must be managed in accordance with the hazardous waste management requirements of parts 260 through 266, 268, 270 and 124 of this chapter.

(b) Disposal of nonhazardous used oils. Used oils that are not hazardous wastes and cannot be recycled under this part must be disposed in accordance with the requirements of parts 257 and 258 of this chapter.

§ 279.82 Use as a dust suppressant.

(a) The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in paragraph (c) of this section.

(b) A State may petition (e.g., as part of its authorization petition submitted to EPA under §271.5 of this chapter or by a separate submission) EPA to allow the use of used oil (that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability) as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as a dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

(c) List of States. [Reserved]
Environmental Protection Agency

PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)

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280.116 Suspension of enforcement. [Reserved]

Subpart I—Lender Liability

280.200 Definitions.
280.210 Participation in management.
280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.
§ 280.10 Applicability.

(a) The requirements of this part apply to all owners and operators of an UST system as defined in §280.12 except as otherwise provided in paragraphs (b), (c), and (d) of this section. Any UST system listed in paragraph (c) of this section must meet the requirements of §280.11.

(b) The following UST systems are excluded from the requirements of this part:

(1) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act.

(3) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(4) Any UST system whose capacity is 110 gallons or less.

(5) Any UST system that contains a de minimis concentration of regulated substances.

(6) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(c) Deferrals. Subparts B, C, D, E, and G do not apply to any of the following types of UST systems:

(1) Wastewater treatment tank systems.

(2) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following).

(3) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50, appendix A.

(4) Airport hydrant fuel distribution systems; and

(5) UST systems with field-constructed tanks.

(d) Deferrals. Subpart D does not apply to any UST system that stores fuel solely for use by emergency power generators.

§ 280.11 Interim prohibition for deferred UST systems.

(a) No person may install an UST system listed in §280.10(c) for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

(1) Will prevent releases due to corrosion or structural failure for the operational life of the UST system;

(2) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(3) Is constructed or lined with material that is compatible with the stored substance.

(b) Notwithstanding paragraph (a) of this section, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators must maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

NOTE: The National Association of Corrosion Engineers Standard RP–02–85, “Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,” may be used as guidance for complying with paragraph (b) of this section.

§ 280.12 Definitions.

Aboveground release means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with
overfills and transfer operations as the regulated substance moves to or from an UST system.

Ancillary equipment means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

Belowground release means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

Beneath the surface of the ground means beneath the ground surface or otherwise covered with earthen materials.

Cathodic protection is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

Cathodic protection tester means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.


Compatibles means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

Connected piping means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

Consumptive use with respect to heating oil means consumed on the premises.

Corrosion expert means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

Dielectric material means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

Electrical equipment means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

Excavation zone means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

Existing tank system means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:

(a) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,

(b)(1) Either a continuous on-site physical construction or installation 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 at the site or installation of the tank system to be completed within a reasonable time.

*Farm tank* is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. “Farm” includes fish hatcheries, rangeland and nurseries with growing operations.

*Flow-through process tank* is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

*Free product* refers to a regulated substance that is present as a non-aqueous phase liquid (e.g., liquid not dissolved in water.)

*Gathering lines* means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

*A hazardous substance UST system* means an underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

*A heating oil* means petroleum that is No. 1, No. 2, No. 4—light, No. 4—heavy, No. 5—light, No. 5—heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

*A hydraulic lift tank* means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

*Implementing agency* means EPA, or, in the case of a state with a program approved under section 9004 (or pursuant to a memorandum of agreement with EPA), the designated state or local agency responsible for carrying out an approved UST program.

*A liquid trap* means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

*Maintenance* means the normal operational upkeep to prevent an underground storage tank system from releasing product.

*A motor fuel* means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

*A new tank system* means a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988. (See also “Existing Tank System.”)

*Noncommercial purposes with respect to motor fuel* means not for resale.

*On the premises where stored with respect to heating oil* means UST systems located on the same property where the stored heating oil is used.

*Operational life* refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under Subpart G.

*Operator* means any person in control of, or having responsibility for, the daily operation of the UST system.

*Overfill release* is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

*Owner* means:
(a) In the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and

(b) In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use.

Person means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, political subdivision of a state, or any interstate body. “Person” also includes a consortium, a joint venture, a commercial entity, and the United States Government.

Petroleum UST system means an underground storage tank system that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

Pipe or Piping means a hollow cylinder or tubular conduit that is constructed of non-earthen materials.

Pipeline facilities (including gathering lines) are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

Regulated substance means:

(a) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and

(b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

The term “regulated substance” includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil though processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

Release means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into ground water, surface water or subsurface soils.

Release detection means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

Repair means to restore a tank or UST system component that has caused a release of product from the UST system.

Residential tank is a tank located on property used primarily for dwelling purposes.


Septic tank is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

Storm-water or wastewater collection system means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

Surface impoundment 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) that is not an injection well.

Tank is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastics) that provide structural support.

Underground area means an underground room, such as a basement, cellar, shaft or vault, providing enough
space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

Underground release means any below-ground release.

Underground storage tank or UST means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
(b) Tank used for storing heating oil for consumptive use on the premises where stored;
(c) Septic tank;
(d) Pipeline facility (including gathering lines) regulated under:
   (1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.), or
   (3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in paragraph (d)(1) or (d)(2) of this definition;
(e) Surface impoundment, pit, pond, or lagoon;
(f) Storm-water or wastewater collection system;
(g) Flow-through process tank;
(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or
(i) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor. The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition.

Upgrade means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.

UST system or Tank system means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

Wastewater treatment tank means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

Subpart B—UST Systems: Design, Construction, Installation and Notification

§ 280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements.

(a) Tanks. Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:
   (1) The tank is constructed of fiberglass-reinforced plastic; or
   (2) The tank is constructed of steel and cathodically protected in the following manner:
      (i) The tank is coated with a suitable dielectric material;
      (ii) Field-installed cathodic protection systems are designed by a corrosion expert;
(iii) Impressed current systems are designed to allow determination of current operating status as required in §280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with §280.31 or according to guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute “Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks”;

(B) Underwriters Laboratories Standard 1746, “Corrosion Protection Systems for Underground Storage Tanks”;


(3) The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

NOTE: The following industry codes may be used to comply with paragraph (a)(3) of this section: Underwriters Laboratories Standard 1746, “Corrosion Protection Systems for Underground Storage Tanks,” and Underwriters Laboratories Standard 58, “Standard for Steel Underground Tanks for Flammable and Combustible Liquids.”

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraphs (a)(4)(i) for the remaining life of the tank; or

(iv) Cathodic protection systems are operated and maintained in accordance with §280.31 or guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(2) of this section:

(A) National Fire Protection Association Standard 30, “Flammable and Combustible Liquids Code”;

(B) American Petroleum Institute Publication 165, “Installation of Underground Petroleum Storage Systems”;

(C) American Petroleum Institute Publication 1622, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”; and


(b) Piping. The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The piping is constructed of fiberglass-reinforced plastic; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(1) of this section:

(A) Underwriters Laboratories Subject 971, “UL Listed Non-Metal Pipe”;

(B) Underwriters Laboratories Standard 567, “Pipe Connectors for Flammable and Combustible and LP Gas”;

(C) Underwriters Laboratories of Canada Guide ULC–107, “Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids”; and


(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in §280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with §280.31 or guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(2) of this section:

(A) National Fire Protection Association Standard 30, “Flammable and Combustible Liquids Code”;

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

NOTE: National Fire Protection Association Standard 30, “Flammable and Combustible Liquids Code”; and National Association of Corrosion Engineers Standard RP–01–69, “Control of External Corrosion on Submerged Metallic Piping Systems,” may be used to comply with paragraph (b)(3) of this section.

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b) (1) through (3) of this section.

(c) Spill and overfill prevention equipment.

(1) Except as provided in paragraph (c)(2) of this section, to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow 30 minutes prior to overfilling, alert the operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1) (i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(d) Installation. All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer’s instructions.

NOTE: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of paragraph (d) of this section:

(i) American Petroleum Institute Publication 1615, “Installation of Underground Petroleum Storage System”; or

(ii) Petroleum Equipment Institute Publication RP100, “Recommended Practices for Installation of Underground Liquid Storage Systems”; or


(e) Certification of installation. All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with §280.22.

(1) The installer has been certified by the tank and piping manufacturer; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or
(4) The installation has been inspected and approved by the implementing agency; or
(5) All work listed in the manufacturer's installation checklists has been completed; or
(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.


§ 280.21 Upgrading of existing UST systems.

(a) Alternatives allowed. Not later than December 22, 1998, all existing UST systems must comply with one of the following requirements:
(1) New UST system performance standards under § 280.20;
(2) The upgrading requirements in paragraphs (b) through (d) of this section; or
(3) Closure requirements under subpart G of this part, including applicable requirements for corrective action under subpart F.

(b) Tank upgrading requirements. Steel tanks must be upgraded to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:
(1) Interior lining. A tank may be upgraded by internal lining if:
   (i) The lining is installed in accordance with the requirements of § 280.33, and
   (ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications.

(2) Cathodic protection. A tank may be upgraded by cathodic protection if the cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv) and the integrity of the tank is ensured using one of the following methods:
   (i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system; or
   (ii) The tank has been installed for less than 10 years and is monitored monthly for releases in accordance with § 280.43 (d) through (h); or
   (iii) The tank has been installed for less than 10 years and is assessed for corrosion holes by conducting two (2) tightness tests that meet the requirements of § 280.43(c). The first tightness test must be conducted prior to installing the cathodic protection system.
   (iv) The tank is assessed for corrosion holes by a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (b)(2) (i) through (iii) of this section.
(3) Internal lining combined with cathodic protection. A tank may be upgraded by both internal lining and cathodic protection if:
   (i) The lining is installed in accordance with the requirements of § 280.33; and
   (ii) The cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv).

Note: The following codes and standards may be used to comply with this section:
(A) American Petroleum Institute Publication 1631, “Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks”;
(B) National Leak Prevention Association Standard 631, “Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection”;
(C) National Association of Corrosion Engineers Standard RP–02–85, “Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems”; and

(c) Piping upgrading requirements. Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent
testing laboratory and must meet the requirements of §280.20(b)(2) (ii), (iii), and (iv).

Note: The codes and standards listed in the note following §280.20(b)(2) may be used to comply with this requirement.

(d) Spill and overfill prevention equipment. To prevent spilling and overfilling associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in §280.20(c).

§ 280.22 Notification requirements.

(a) Any owner who brings an underground storage tank system into use after May 8, 1986, must within 30 days of bringing such tank into use, submit, in the form prescribed in appendix I of this part, a notice of existence of such tank system to the state or local agency or department designated in appendix II of this part to receive such notice.

Note: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the designated state or local agency in accordance with the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98–616, on a form published by EPA on November 8, 1985 (50 FR 46602) unless notice was given pursuant to section 103(c) of CERCLA. Owners and operators who have not complied with the notification requirements may use portions I through VI of the notification form contained in appendix I of this part.

(b) In states where state law, regulations, or procedures require owners to use forms that differ from those set forth in appendix I of this part to fulfill the requirements of this section, the state forms may be submitted in lieu of the forms set forth in Appendix I of this part. If a state requires that its form be used in lieu of the form presented in this regulation, such form must meet the requirements of section 9002.

(c) Owners required to submit notices under paragraph (a) of this section must provide notices to the appropriate agencies or departments identified in appendix II of this part for each tank they own. Owners must provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of operation must file a separate notification form for each separate place of operation.

(d) Notices required to be submitted under paragraph (a) of this section must provide all of the information in sections I through VI of the prescribed form (or appropriate state form) for each tank for which notice must be given. Notices for tanks installed after December 22, 1988 must also provide all of the information in section VII of the prescribed form (or appropriate state form) for each tank for which notice must be given.

(e) All owners and operators of new UST systems must certify in the notification form compliance with the following requirements:

(1) Installation of tanks and piping under §280.20(e);

(2) Cathodic protection of steel tanks and piping under §280.20 (a) and (b);

(3) Financial responsibility under subpart H of this part; and

(4) Release detection under §§280.41 and 280.42.

(f) All owners and operators of new UST systems must ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in §280.20(d).

(g) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank must notify the purchaser of such tank of the owner's notification obligations under paragraph (a) of this section. The form provided in appendix III of this part may be used to comply with this requirement.

Subpart C—General Operating Requirements

§ 280.30 Spill and overfill control.

(a) Owners and operators must ensure that releases due to spilling or overfilling do not occur. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.
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§ 280.33 Repairs allowed.

Owners and operators of UST systems must ensure that repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.


(b) The owner and operator must report, investigate, and clean up any spills and overfills in accordance with § 280.53.

§ 280.32 Compatibility.

Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

NOTE: Owners and operators storing alcohol blends may use the following codes to comply with the requirements of this section:

(a) American Petroleum Institute Publication 1626, “Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations”; and

(b) American Petroleum Institute Publication 1627, “Storage and Handling of Gasoline-Methanol/ Cosolvent Blends at Distribution Terminals and Service Stations.”

§ 280.31 Operation and maintenance of corrosion protection.

All owners and operators of steel UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the UST system is used to store regulated substances:

(a) All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground.

(b) All UST systems equipped with cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) Frequency. All cathodic protection systems must be tested within 6 months of installation and at least every 3 years thereafter or according to another reasonable time frame established by the implementing agency; and

(2) Inspection criteria. The criteria that are used to determine that cathodic protection is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association.

NOTE: National Association of Corrosion Engineers Standard RP-02-85, “Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,” may be used to comply with paragraph (b) of this section.

(c) UST systems with impressed current cathodic protection systems must also be inspected every 60 days to ensure the equipment is running properly.

(d) For UST systems using cathodic protection, records of the operation of the cathodic protection must be maintained (in accordance with § 280.34) to demonstrate compliance with the performance standards in this section. These records must provide the following:

(1) The results of the last three inspections required in paragraph (c) of this section; and

(2) The results of testing from the last two inspections required in paragraph (b) of this section.
§ 280.34 Reporting and recordkeeping.

Owners and operators of UST systems must cooperate fully with inspections, monitoring and testing conducted by the implementing agency, as well as requests for document submission, testing, and monitoring by the owner or operator pursuant to section 9005 of Subtitle I of the Resource Conservation and Recovery Act, as amended.

(a) Reporting. Owners and operators must submit the following information to the implementing agency:

(1) Notification for all UST systems (§ 280.22), which includes certification of installation for new UST systems (§ 280.20(e)),
(2) Reports of all releases including suspected releases (§ 280.50), spills and overfills (§ 280.53), and confirmed releases (§ 280.61);
(3) Corrective actions planned or taken including initial abatement measures (§ 280.62), initial site characterization (§ 280.63), free product removal (§ 280.64), investigation of soil and ground-water cleanup (§ 280.65), and corrective action plan (§ 280.66); and
(4) A notification before permanent closure or change-in-service (§ 280.71).

(b) Recordkeeping. Owners and operators must maintain the following information:

(1) A corrosion expert’s analysis of site corrosion potential if corrosion protection equipment is not used (§ 280.20(a)(4); § 280.20(b)(3)).
(2) Documentation of operation of corrosion protection equipment (§ 280.31);
(3) Documentation of UST system repairs (§ 280.33(f));
(4) Recent compliance with release detection requirements (§ 280.45); and
(5) Results of the site investigation conducted at permanent closure (§ 280.74).

(c) Availability and Maintenance of Records. Owners and operators must keep the records required either:

(1) At the UST site and immediately available for inspection by the implementing agency; or
(2) At a readily available alternative site and be provided for inspection to the implementing agency upon request.

(3) In the case of permanent closure records required under § 280.74, owners and operators are also provided with the additional alternative of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site as indicated above.
§ 280.40 General requirements for all UST systems.

(a) Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;

(2) Is installed, calibrated, operated, and maintained in accordance with the manufacturer’s instructions, including routine maintenance and service checks for operability or running condition; and

(3) Meets the performance requirements in § 280.43 or 280.44, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods used after the date shown in the following table corresponding with the specified method except for methods permanently installed prior to that date, must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of the rule (also shown in the table) with a probability of detection (Pd) of 0.95 and a probability of false alarm (Pfa) of 0.05.

(b) When a release detection method operated in accordance with the performance standards in § 280.43 or 280.44 indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with subpart E.

(c) Owners and operators of all UST systems must comply with the release detection requirements of this subpart by December 22 of the year listed in the following table:

<table>
<thead>
<tr>
<th>Year system was installed</th>
<th>1989</th>
<th>1990</th>
<th>1991</th>
<th>1992</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1965 or date unknown</td>
<td>RD</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965–69</td>
<td>P/RD</td>
<td>P</td>
<td>RD</td>
<td>RD</td>
<td></td>
</tr>
<tr>
<td>1970–74</td>
<td>P</td>
<td></td>
<td>RD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975–79</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980–88</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New tanks (after December 22)</td>
<td>immediately upon installation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

§ 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(a) Tanks. Tanks must be monitored at least every 30 days for releases using one of the methods listed in § 280.43 (d) through (h) except that:

(1) UST systems that meet the performance standards in § 280.20 or § 280.44, and the monthly inventory control requirements in § 280.43 (a) or (b), may use tank tightness testing (conducted in accordance with § 280.43(c)) at least 5 years until December 22, 1998, or until 10 years after the tank is installed or upgraded under § 280.21(b), whichever is later;

(2) UST systems that do not meet the performance standards in § 280.20 or § 280.21 may use monthly inventory controls (conducted in accordance with § 280.43(a) or (b)) and annual tank tightness testing (conducted in accordance with § 280.43(c)) until December 22, 1998 when the tank must be upgraded under § 280.21 or permanently closed under § 280.71; and
§ 280.42 Requirements for hazardous substance UST systems.

Owners and operators of hazardous substance UST systems must provide release detection that meets the following requirements:

(a) Release detection at existing UST systems must meet the requirements for petroleum UST systems in §280.41. By December 22, 1996, all existing hazardous substance UST systems must meet the release detection requirements for new systems in paragraph (b) of this section.

(b) Release detection at new hazardous substance UST systems must meet the following requirements:

(1) Secondary containment systems must be designed, constructed, and installed to:

(i) Contain regulated substances released from the tank system until they are detected and removed;

(ii) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and

(iii) Be checked for evidence of a release at least every 30 days.

Note. The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with these requirements.

(2) Double-walled tanks must be designed, constructed, and installed to:

(i) Contain a release from any portion of the inner tank within the outer wall; and

(ii) Detect the failure of the inner wall.

(3) External liners (including vaults) must be designed, constructed, and installed to:

(i) Contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Prevent the interference of precipitation or ground-water intrusion with the ability to contain or detect a release of regulated substances; and

(iii) Surround the tank completely (i.e., it is capable of preventing lateral as well as vertical migration of regulated substances).

(4) Underground piping must be equipped with secondary containment that satisfies the requirements of paragraph (b)(1) of this section (e.g., trench liners, jacketing of double-walled pipe). In addition, underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector in accordance with §280.44(a).

(5) Other methods of release detection may be used if owners and operators:

(i) Demonstrate to the implementing agency that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in §§280.43(b) through (h) can detect a release of petroleum;
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(ii) Provide information to the implementing agency on effective corrective action technologies, health risks, and chemical and physical properties of the stored substance, and the characteristics of the UST site; and,

(iii) Obtain approval from the implementing agency to use the alternate release detection method before the installation and operation of the new UST system.

§ 280.43 Methods of release detection for tanks.

Each method of release detection for tanks used to meet the requirements of §280.41 must be conducted in accordance with the following:

(a) Inventory control. Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

1. Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;

2. The equipment used is capable of measuring the level of product over the full range of the tank’s height to the nearest one-eighth of an inch;

3. The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

4. Deliveries are made through a drop tube that extends to within one foot of the tank bottom;

5. Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and

6. The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

NOTE: Practices described in the American Petroleum Institute Publication 1621, “Recommended Practice for Bulk Liquid Stock Control at Retail Outlets,” may be used, where applicable, as guidance in meeting the requirements of this paragraph.

(b) Manual tank gauging. Manual tank gauging must meet the following requirements:

1. Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank;

2. Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;

3. The equipment used is capable of measuring the level of product over the full range of the tank’s height to the nearest one-eighth of an inch;

4. A leak is suspected and subject to the requirements of subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

<table>
<thead>
<tr>
<th>Nominal tank capacity</th>
<th>Weekly standard (one test)</th>
<th>Monthly standard (average of four tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>550 gallons or less.</td>
<td>10 gallons.................</td>
<td>5 gallons.</td>
</tr>
<tr>
<td>551–1,000 gallons.</td>
<td>13 gallons.................</td>
<td>7 gallons.</td>
</tr>
<tr>
<td>1,001–2,000 gallons.</td>
<td>26 gallons................</td>
<td>13 gallons.</td>
</tr>
</tbody>
</table>

(5) Only tanks of 550 gallons or less nominal capacity may use this as the sole method of release detection. Tanks of 551 to 2,000 gallons may use the method in place of manual inventory control in §280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this subpart.

(c) Tank tightness testing. Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(d) Automatic tank gauging. Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

1. The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product; and

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(2) Inventory control (or another test of equivalent performance) is conducted in accordance with the requirements of §280.43(a).

(e) Vapor monitoring. Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

(1) The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(2) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(3) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

(4) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (e) (1) through (4) of this section and to establish the number and positioning of monitoring wells that will detect releases from any portion of the tank that routinely contains product; and

(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(f) Ground-water monitoring. Testing or monitoring for liquids on the ground water must meet the following requirements:

(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(2) Ground water is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(3) The slotted portion of the monitoring well casing must be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low ground-water conditions;

(4) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(5) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(6) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells;

(7) Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (f) (1) through (5) of this section and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product; and

(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) Interstitial monitoring. Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

(1) For double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product;

NOTE: The provisions outlined in the Steel Tank Institute’s “Standard for Dual Wall Underground Storage Tanks” may be used as guidance for aspects of the design and construction of underground steel double-walled tanks.

(2) For UST systems with a secondary barrier within the excavation
zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least $10^{-6}$ cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(iii) For cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the ground water and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and,

(vi) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(3) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(h) Other methods. Any other type of release detection method, or combination of methods, can be used if:

(1) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(2) The implementing agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (c) through (h) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use to ensure the protection of human health and the environment.

§ 280.44 Methods of release detection for piping.

Each method of release detection for piping used to meet the requirements of §280.41 must be conducted in accordance with the following:

(a) Automatic line leak detectors. Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements.

(b) Line tightness testing. A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) Applicable tank methods. Any of the methods in §280.43 (e) through (h) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

§ 280.45 Release detection record-keeping.

All UST system owners and operators must maintain records in accordance with §280.34 demonstrating compliance with all applicable requirements of this subpart. These records must include the following:

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation;

(b) The results of any sampling, testing, or monitoring must be maintained.
for at least 1 year, or for another reasonable period of time determined by the implementing agency, except that the results of tank tightness testing conducted in accordance with §280.43(c) must be retained until the next test is conducted; and

(c) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site must be maintained for at least one year after the servicing work is completed, or for another reasonable time period determined by the implementing agency. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be retained for 5 years from the date of installation.

Subpart E—Release Reporting, Investigation, and Confirmation

§280.50 Reporting of suspected releases.

Owners and operators of UST systems must report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and follow the procedures in §280.52 for any of the following conditions:

(a) The discovery by owners and operators or others of released regulated substances at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface water).

(b) Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, or an unexplained presence of water in the tank), unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced; and,

(c) Monitoring results from a release detection method required under §280.41 and §280.42 that indicate a release may have occurred unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result; or

(2) In the case of inventory control, a second month of data does not confirm the initial result.

§280.51 Investigation due to off-site impacts.

When required by the implementing agency, owners and operators of UST systems must follow the procedures in §280.52 to determine if the UST system is the source of off-site impacts. These impacts include the discovery of regulated substances (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface and drinking waters) that has been observed by the implementing agency or brought to its attention by another party.

§280.52 Release investigation and confirmation steps.

Unless corrective action is initiated in accordance with subpart F, owners and operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under §280.50 within 7 days, or another reasonable time period specified by the implementing agency, using either the following steps or another procedure approved by the implementing agency:

(a) System test. Owners and operators must conduct tests (according to the requirements for tightness testing in §280.43(c) and §280.44(b)) that determine whether a leak exists in that portion of the tank that routinely contains product, or the attached delivery piping, or both.

(1) Owners and operators must repair, replace or upgrade the UST system, and begin corrective action in accordance with subpart F if the test results for the system, tank, or delivery piping indicate that a leak exists.

(2) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.

(3) Owners and operators must conduct a site check as described in paragraph (b) of this section if the test results for the system, tank, and delivery...
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§ 280.62 Initial abatement measures and site check.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must perform the following abatement measures:

(1) Remove as much of the regulated substance from the UST system as is
§ 280.63 Initial site characterization.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must assemble information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in §§ 280.60 and 280.61. This information must include, but is not necessarily limited to the following:

(1) Data on the nature and estimated quantity of release;

(2) Data from available sources and/or site investigations concerning the following factors: surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, and land use;

(3) Results of the site check required under § 280.62(a)(5); and

(4) Results of the free product investigations required under § 280.62(a)(6), to be used by owners and operators to determine whether free product must be recovered under § 280.64.

(b) Within 45 days of release confirmation or another reasonable period of time determined by the implementing agency, owners and operators must submit the information collected in compliance with paragraph (a) of this section to the implementing agency in a manner that demonstrates its applicability and technical adequacy, or in a format and according to the schedule required by the implementing agency.

§ 280.64 Free product removal.

At sites where investigations under § 280.62(a)(6) indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency while continuing, as necessary, any actions initiated under §§ 280.61 through 280.63, or preparing for actions required under §§ 280.65 through 280.66. In meeting the requirements of this section, owners and operators must:

(a) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery by-products in compliance with applicable local, State and Federal regulations;
§ 280.66 Corrective action plan.

(a) At any point after reviewing the information submitted in compliance with §§ 280.61 through 280.63, the implementing agency may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and ground water. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the implementing agency. Alternatively, owners and operators may, after fulfilling the requirements of §§ 280.61 through 280.63, choose to submit a corrective action plan for responding to contaminated soil and ground water. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the implementing agency, and must modify their plan as necessary to meet this standard.

(b) The implementing agency will approve the corrective action plan only after ensuring that implementation of the plan will adequately protect human health, safety, and the environment. In making this determination, the implementing agency should consider the following factors as appropriate:

1. The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;
2. The hydrogeologic characteristics of the facility and the surrounding area;
3. The proximity, quality, and current and future uses of nearby surface water and ground water;
§ 280.67 Public participation.

(a) For each confirmed release that requires a corrective action plan, the implementing agency must provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned corrective action. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, publication in a state register, letters to individual households, or personal contacts by field staff.

(b) The implementing agency must ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(c) Before approving a corrective action plan, the implementing agency may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(d) The implementing agency must give public notice that complies with paragraph (a) of this section if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan, or if termination of that plan is under consideration by the implementing agency.

Subpart G—Out-of-Service UST Systems and Closure

§ 280.70 Temporary closure.

(a) When an UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection in accordance with §280.31, and any release detection in accordance with subpart D. Subparts E and F must be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

(b) When an UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

(1) Leave vent lines open and functioning;

(2) Cap and secure all other lines, pumps, manways, and ancillary equipment.

(c) When an UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in §280.20 for new UST systems or the upgrading requirements in §280.21, except that the spill and overfill equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period in accordance with §§280.71–280.74, unless the implementing agency provides an extension of the 12-month temporary closure period. Owners and
operators must complete a site assessment in accordance with §280.72 before such an extension can be applied for.

§ 280.71 Permanent closure and changes-in-service.

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the implementing agency, owners and operators must notify the implementing agency of their intent to permanently close or make the change-in-service, unless such action is in response to corrective action. The required assessment of the excavation zone under §280.72 must be performed after notifying the implementing agency but before completion of the permanent closure or a change-in-service.

(b) To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material.

(c) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with §280.72.

NOTE: The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

(B) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

(C) American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

(D) The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard * * * Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

§ 280.72 Assessing the site at closure or change-in-service.

(a) Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release. The requirements of this section are satisfied if one of the external release detection methods allowed in §280.43 (e) and (f) is operating in accordance with the requirements in §280.43 at the time of closure, and indicates no release has occurred.

(b) If contaminated soils, contaminated ground water, or free product as a liquid or vapor is discovered under paragraph (a) of this section, or by any other manner, owners and operators must begin corrective action in accordance with subpart P.

§ 280.73 Applicability to previously closed UST systems.

When directed by the implementing agency, the owner and operator of an UST system permanently closed before December 22, 1988 must assess the excavation zone and close the UST system in accordance with this subpart if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.

§ 280.74 Closure records.

Owners and operators must maintain records in accordance with §280.34 that are capable of demonstrating compliance with closure requirements under this subpart. The results of the excavation zone assessment required in §280.72 must be maintained for at least 3 years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the UST system out of service;

(b) By the current owners and operators of the UST system site; or
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(c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

Subpart H—Financial Responsibility

SOURCE: 53 FR 43370, Oct. 26, 1988, unless otherwise noted.

§ 280.90 Applicability.

(a) This subpart applies to owners and operators of all petroleum underground storage tank (UST) systems except as otherwise provided in this section.

(b) Owners and operators of petroleum UST systems are subject to these requirements if they are in operation on or after the date for compliance established in §280.91.

(c) State and Federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of this subpart.

(d) The requirements of this subpart do not apply to owners and operators of any UST system described in §280.10 (b) or (c).

(e) If the owner and operator of a petroleum underground storage tank are separate persons, only one person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance. Regardless of which party complies, the date set for compliance at a particular facility is determined by the characteristics of the owner as set forth in §280.91.

§ 280.91 Compliance dates.

Owners of petroleum underground storage tanks are required to comply with the requirements of this subpart by the following dates:

(a) All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of $20 million or more to the U.S. Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration: January 24, 1989, except that compliance with §280.94(b) is required by: July 24, 1989.

(b) All petroleum marketing firms owning 100–999 USTs: October 26, 1989.

(c) All petroleum marketing firms owning 13–99 USTs at more than one facility: April 26, 1991.

(d) All petroleum UST owners not described in paragraphs (a), (b), or (c) of this section, excluding local government entities: December 31, 1993.

(e) All local government entities (including Indian tribes) not included in paragraph (f) of this section: February 18, 1994.

(f) Indian tribes that own USTs on Indian lands which meet the applicable technical requirements of this part: December 31, 1998.


§ 280.92 Definition of terms.

When used in this subpart, the following terms shall have the meanings given below:

Accidental release means any sudden or nonsudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

Bodily injury shall have the meaning given to this term by applicable state law; however, this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

Chief Financial Officer, in the case of local government owners and operators, means the individual with the overall authority and responsibility for the collection, disbursement, and use of funds by the local government.

Controlling interest means direct ownership of at least 50 percent of the voting stock of another entity.

Director of the Implementing Agency means the EPA Regional Administrator, or, in the case of a state with a program approved under section 9004, the Director of the designated state or local agency responsible for carrying out an approved UST program.
Financial reporting year means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

1. A 10-K report submitted to the SEC;
2. An annual report of tangible net worth submitted to Dun and Bradstreet; or
3. Annual reports submitted to the Energy Information Administration or the Rural Electrification Administration.

"Financial reporting year" may thus comprise a fiscal or a calendar year period.

Legal defense cost is any expense that an owner or operator or provider of financial assurance incurs in defending against claims or actions brought,

1. By EPA or a state to require corrective action or to recover the costs of corrective action;
2. By or on behalf of a third party for bodily injury or property damage caused by an accidental release; or
3. By any person to enforce the terms of a financial assurance mechanism.

Local government shall have the meaning given this term by applicable state law and includes Indian tribes. The term is generally intended to include: (1) Counties, municipalities, townships, separately chartered and operated special districts (including local government public transit systems and redevelopment authorities), and independent school districts authorized as governmental bodies by state charter or constitution; and (2) Special districts and independent school districts established by counties, municipalities, townships, and other general purpose governments to provide essential services.

Occurrence means an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

Note: This definition is intended to assist in the understanding of these regulations and is not intended either to limit the meaning of “occurrence” in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of “occurrence.”

Owner or operator, when the owner or operator are separate parties, refers to the party that is obtaining or has obtained financial assurances.

Petroleum marketing facilities include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

Petroleum marketing firms are all firms owning petroleum marketing facilities. Firms owning other types of facilities with USTs as well as petroleum marketing facilities are considered to be petroleum marketing firms.

Property damage shall have the meaning given this term by applicable state law. This term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

Provider of financial assurance means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in §§280.95–280.103, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

Substantial business relationship means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued “incident to that relationship” if it arises from and depends on existing economic transactions between the guarantor and the owner or operator.

Substantial governmental relationship means the extent of a governmental relationship necessary under applicable state law to make an added guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued “incident to that relationship” if it arises from a clear commonality of interest in the event of an UST release such as coterminous boundaries, overlapping constituencies, common ground-water aquifer, or other relationship other than...
monetary compensation that provides a motivation for the guarantor to provide a guarantee.

**Tangible net worth** means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

**Termination** under §280.97(b)(1) and §280.97(b)(2) means only those changes that could result in a gap in coverage as where the insured has not obtained substitute coverage or has obtained substitute coverage with a different retroactive date than the retroactive date of the original policy.

§280.93 Amount and scope of required financial responsibility.

(a) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following per occurrence amounts:

1. For owners or operators of petroleum underground storage tanks that are located at petroleum marketing facilities, or that handle an average of more than 10,000 gallons of petroleum per month based on annual throughput for the previous calendar year; $1 million.
2. For all other owners or operators of petroleum underground storage tanks; $500,000.

(b) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility in the amount of at least the following annual aggregate amounts:

1. For owners or operators of 1 to 100 petroleum underground storage tanks, $1 million; and
2. For owners or operators of 101 or more petroleum underground storage tanks, $2 million.

(c) For the purposes of paragraphs (b) and (f) of this section, only, "a petroleum underground storage tank" means a single containment unit and does not mean combinations of single containment units.

(d) Except as provided in paragraph (e) of this section, if the owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for:

1. Taking corrective action;
2. Compensating third parties for bodily injury and property damage caused by sudden accidental releases; or
3. Compensating third parties for bodily injury and property damage caused by nonsudden accidental releases, the amount of assurance provided by each mechanism or combination of mechanisms must be in the full amount specified in paragraphs (a) and (b) of this section.

(e) If an owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for different petroleum underground storage tanks, the annual aggregate required shall be based on the number of tanks covered by each such separate mechanism or combination of mechanisms.

(f) Owners or operators shall review the amount of aggregate assurance provided whenever additional petroleum underground storage tanks are acquired or installed. If the number of petroleum underground storage tanks for which assurance must be provided exceeds 100, the owner or operator shall demonstrate financial responsibility in the amount of at least $2 million of annual aggregate assurance by the anniversary of the date on which the mechanism demonstrating financial responsibility became effective. If assurance is being demonstrated by a combination of mechanisms, the owner or operator shall demonstrate financial responsibility in the amount of at least
§ 280.95 Financial test of self-insurance.

(a) An owner or operator, and/or guarantor, may satisfy the requirements of §280.93 by passing a financial test as specified in this section. To pass the financial test of self-insurance, the owner or operator, and/or guarantor must meet the criteria of paragraph (b) or (c) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The owner or operator, and/or guarantor, must have a tangible net worth of at least ten times:

(i) The total of the applicable aggregate amount required by §280.93, based on the number of underground storage tanks for which a financial test is used to demonstrate financial responsibility to EPA under this section or to a state implementing agency under a state program approved by EPA under 40 CFR part 281;

(ii) The sum of the corrective action cost estimates, the current closure and post-closure care cost estimates, and amount of liability coverage for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 264.101, 264.143, 264.145, 265.143, 165.145, 264.147, and 265.147 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 271; and

(iii) The sum of current plugging and abandonment cost estimates for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 144.63 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 145.

(2) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer worded as specified in paragraph (d) of this section.

(c) An owner or operator may use self-insurance in combination with a guarantee only if, for the purpose of meeting the requirements of the financial test under this rule, the financial statements of the owner or operator are not consolidated with the financial statements of the guarantor.

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(a) Certification of financial responsibility. (1) The firm’s year-end financial statements, if independently audited, cannot include an adverse auditor’s opinion, a disclaimer of opinion, or a “going concern” qualification.

(c) (1) The owner or operator, and/or guarantor must meet the financial test requirements of 40 CFR 264.147(f)(1), substituting the appropriate amounts specified in §280.93 (b)(1) and (b)(2) for the “amount of liability coverage” each time specified in that section.

(2) The fiscal year-end financial statements of the owner or operator, and/or guarantor, must be examined by an independent certified public accountant and be accompanied by the accountant’s report of the examination.

(3) The firm’s year-end financial statements cannot include an adverse auditor’s opinion, a disclaimer of opinion, or a “going concern” qualification.

(4) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer, worded as specified in paragraph (d) of this section.

(5) If the financial statements of the owner or operator, and/or guarantor, are not submitted annually to the U.S. Securities and Exchange Commission, the Energy Information Administration or the Rural Electrification Administration, the owner or operator, and/or guarantor, must obtain a special report by an independent certified public accountant stating that:

(i) He has compared the data that the letter form the chief financial officer specifies as having been derived from the latest year-end financial statements of the owner or operator, and/or guarantor, with the amounts in such financial statements; and

(ii) In connection with that comparison, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(d) To demonstrate that it meets the financial test under paragraph (b) or (c) of this section, the chief financial officer of the owner or operator, or guarantor, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: “the financial test of self-insurance,” and/or “guarantee”] to demonstrate financial responsibility for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage”] caused by [insert: “sudden accidental releases” and/or “non-sudden accidental releases”] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this financial test or a financial test under an authorized State program by this [insert: “owner or operator,” and/or “guarantor”]: [List for each facility: the name and address of the facility where tanks assured by this financial test are located, and whether tanks are assured by this financial test or a financial test under a State program authorized under 40 CFR part 281. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test or a financial test under a State program authorized under 40 CFR part 281 by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding State requirements.]

A [insert: “financial test,” and/or “guarantee”] is also used by this [insert: “owner or operator,” or “guarantor”] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or state programs authorized by EPA under 40 CFR parts 271 and 144:

<table>
<thead>
<tr>
<th>EPA Regulations</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Closure (§§ 264.143 and 265.143) ...</td>
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<tr>
<td>Post-Closure Care (§§ 264.145 and 265.145)</td>
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<td>Liability Coverage (§§ 264.147 and 265.147)</td>
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<td>Corrective Action (§§ 264.101(b))</td>
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<td>Plugging and Abandonment (§§ 144.63)</td>
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<td>Closure</td>
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<td>Post-Closure Care</td>
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<td>Liability Coverage</td>
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<td>Corrective Action</td>
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<td>Plugging and Abandonment</td>
<td>$</td>
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<tr>
<td>Total</td>
<td>$</td>
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</tbody>
</table>

This [insert: “owner or operator,” or “guarantor”] has not received an adverse opinion, a disclaimer of opinion, or a “going concern” qualification.

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concern” qualification from an independent auditor on his financial statements for the latest completed fiscal year.

(Fill in the information for Alternative I if the criteria of paragraph (b) of §280.95 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of paragraph (c) of §280.95 are being used to demonstrate compliance with the financial test requirements.)

Alternative I

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee $</td>
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<td>2.</td>
<td>Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee $</td>
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<td>3.</td>
<td>Sum of lines 1 and 2 $</td>
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<td>4.</td>
<td>Total tangible assets $</td>
</tr>
<tr>
<td>5.</td>
<td>Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] $</td>
</tr>
<tr>
<td>6.</td>
<td>Tangible net worth [subtract line 5 from line 4] $</td>
</tr>
<tr>
<td>7.</td>
<td>Is line 6 at least $10 million? Yes No</td>
</tr>
<tr>
<td>8.</td>
<td>Is line 6 at least 10 times line 3?</td>
</tr>
<tr>
<td>9.</td>
<td>Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission?</td>
</tr>
<tr>
<td>10.</td>
<td>Have financial statements for the latest fiscal year been filed with the Energy Information Administration?</td>
</tr>
<tr>
<td>11.</td>
<td>Have financial statements for the latest fiscal year been filed with the Rural Electrification Administration?</td>
</tr>
<tr>
<td>12.</td>
<td>Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer “Yes” only if both criteria have been met.]</td>
</tr>
</tbody>
</table>

Alternative II

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amount of annual UST aggregate coverage being assured by a test, and/or guarantee $</td>
</tr>
<tr>
<td>2.</td>
<td>Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee $</td>
</tr>
<tr>
<td>3.</td>
<td>Sum of lines 1 and 2 $</td>
</tr>
<tr>
<td>4.</td>
<td>Total tangible assets $</td>
</tr>
<tr>
<td>5.</td>
<td>Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] $</td>
</tr>
<tr>
<td>6.</td>
<td>Tangible net worth [subtract line 5 from line 4] $</td>
</tr>
<tr>
<td>7.</td>
<td>Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.] $</td>
</tr>
<tr>
<td>8.</td>
<td>Is line 6 at least $10 million? $</td>
</tr>
<tr>
<td>9.</td>
<td>Is line 6 at least 6 times line 3?</td>
</tr>
<tr>
<td>10.</td>
<td>Are at least 90 percent of assets located in the U.S.? [If “No,” complete line 11.]</td>
</tr>
<tr>
<td>11.</td>
<td>Is line 7 at least 6 times line 3?</td>
</tr>
<tr>
<td>12.</td>
<td>Current assets $</td>
</tr>
<tr>
<td>13.</td>
<td>Current liabilities</td>
</tr>
<tr>
<td>14.</td>
<td>Net working capital [subtract line 13 from line 12] $</td>
</tr>
<tr>
<td>15.</td>
<td>Is line 14 at least 6 times line 3?</td>
</tr>
<tr>
<td>16.</td>
<td>Current bond rating of most recent bond issue</td>
</tr>
<tr>
<td>17.</td>
<td>Name of rating service</td>
</tr>
<tr>
<td>18.</td>
<td>Date of maturity of bond</td>
</tr>
<tr>
<td>19.</td>
<td>Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Electrification Administration?</td>
</tr>
</tbody>
</table>
§ 280.96 Guarantee.

(a) An owner or operator may satisfy the requirements of §280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must:

(1) A firm that—

(i) possesses a controlling interest in the owner or operator; or

(ii) possesses a controlling interest in a firm described under paragraph (a)(1)(i) of this section; or

(2) A firm engaged in a substantial business relationship with the owner or operator and issuing the guarantee as an act incident to that business relationship.

(b) Within 120 days of the close of each financial reporting year the guarantor must demonstrate that it meets the financial test criteria of §280.95 based on year-end financial statements for the latest completed financial reporting year by completing the letter from the chief financial officer described in §280.95(d) and must deliver the letter to the owner or operator. If the guarantor fails to meet the requirements of the financial test at the end of any financial reporting year, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator. If the Director of the implementing agency notifies the guarantor that he no longer meets the requirements of the financial test of §280.95 (b) or (c) and (d), the guarantor must notify the owner or operator within 10 days of receiving such notification from the Director. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in §280.110(c).

(c) The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

GUARANTEE

Guarantee made this [date] by [name of guaranteeing entity], a business entity organized under the laws of the state of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].
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Recitals.

(1) Guarantor meets or exceeds the financial test criteria of 40 CFR 280.95 (b) or (c) and (d) and agrees to comply with the requirements for guarantors as specified in 40 CFR 280.96(b).

(2) [Owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: (List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding state requirement, and the name and address of the facility.) This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) [Insert appropriate phrase: “On behalf of our subsidiary” (if guarantor is corporate parent of the owner or operator); “On behalf of our affiliate” (if guarantor is a related firm of the owner or operator); or “Incident to our business relationship with” (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] (owner or operator), guarantor guarantees to [implementing agency] and to any and all third parties that:

- In the event that [owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director], shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.
- In the event that the [Director] determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor shall fund a standby trust in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.
- If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.108 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of 40 CFR 280.95 (b) or (c) and (d), guarantor shall send within 120 days after receipt of such notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator]. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] 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.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above-identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor’s obligation does not apply to any of the following:

- (a) Any obligation of [insert owner or operator] under a workers’ compensation, disability benefits, or unemployment compensation law or other similar law;
- (b) Bodily injury to an employee of [insert owner or operator] arising from, and in furtherance of, employment by [insert owner or operator];
- (c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
- (d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert...
§ 280.97 Insurance and risk retention group coverage.

(a) An owner or operator may satisfy the requirements of §280.93 by obtaining liability insurance that conforms to the requirements of this section from a qualified insurer or risk retention group. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

(b) Each insurance policy must be amended by an endorsement worded as specified in paragraph (b)(1) of this section, or evidenced by a certificate of insurance worded as specified in paragraph (b)(2) of this section, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

(1) Endorsement

   Name: [name of each covered location]
   Address: [address of each covered location]
   Policy Number:
   Period of Coverage: [current policy period]
   Name of [Insurer or Risk Retention Group]:
   Address of [Insurer or Risk Retention Group]:
   Name of Insured:
   Address of Insured:

   ENDORSEMENT:

   1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following underground storage tanks:

   (List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.)

   for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”: in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location arising from operating the underground storage tank(s) identified above.

   The limits of liability are [insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer’s or Group’s liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number].

   The effective date of said policy is [date].

   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 inconsistent...
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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 relieve the ["Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy by the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95–280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 90 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(1) and that the ["Insurer" or "Group"] 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 or Risk Retention Group]

[Name of person signing]

[Address of Representative]

(2) Certificate of Insurance

Name: [name of each covered location]

Address: [address of each covered location]

Policy Number:

Endorsement (if applicable):

Period of Coverage: [current policy period]

Name of [Insurer or Risk Retention Group):

Address of [Insurer or Risk Retention Group]:

Name of Insured:

Address of Insured:

Certification:

1. [Name of Insurer or Risk Retention Group], [the ["Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance covering the following underground storage tank(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.] for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer’s or Group’s liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].
2. The ("Insurer" or "Group") 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" or "Group") of its obligations under the policy to which this certificate applies.
   b. The ("Insurer" or "Group") is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ("Insurer" or "Group"). This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95–280.102.
   c. Whenever requested by [a Director of an implementing agency], the ("Insurer" or "Group") agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.
   d. Cancellation or any other termination of the insurance by the ("Insurer" or "Group"), except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

   [Insert for claims-made policies:
   e. The insurance covers claims otherwise covered by the policy that are reported to the ("Insurer" or "Group") within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

   I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(2) and that the ("Insurer" or "Group") 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 or Risk Retention Group]
   [Address of Representative]

(c) Each insurance policy must be issued by an insurer or a risk retention group that, 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.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 47081, Nov. 9, 1989]

§ 280.98 Surety bond.

(a) An owner or operator may satisfy the requirements of §280.93 by obtaining a surety bond that conforms to the requirements of this section. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

(b) The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

   PERFORMANCE BOND

   Date bond executed:
   Period of coverage:
   Principal: [legal name and business address of owner or operator]

   Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

   State of incorporation (if applicable):

   Surety(ies): [name(s) and business address(es)]

   Scope of Coverage: [List the number of tanks at each facility and the names(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility. List the coverage guaranteed by the bond: “taking corrective action” and/or “compensating third parties for bodly injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases” “arising from operating the underground storage tank”].

   Penal sums of bond:
   Per occurrence $________________________
   Annual aggregate $_____________________
   Surety’s bond number:

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Know All Persons by These Presents, that we, the Principal and Surety(ies), hereeto are firmly bound to [the implementing agency], in the above penal sums 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 sums 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 sums 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 sums.

Whereas said Principal is required under Subtitle I of the Resource Conservation and Recovery Act (RCRA), as amended, to provide financial assurance for (insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tanks identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a Surety is required under 40 CFR part 280.108. The Surety(ies) hereby waive(s) notice of cancellation by the Principal, provided, however, that cancellation shall not occur during the 120 days following the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt. The Principal may terminate this bond by sending written notice to the Surety(ies).
In Witness Thereof, the Principal and Surety(ies) have executed this 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 280.98(b) as such regulations were constituted on the date this bond was executed.

Principal
[Signature(s)]
[Names(s)]
[Title(s)]
[Corporate seal]

Corporate Surety(ies)

[Name and address]
[State of Incorporation: ____]
[Liability limit: $____]
[Signature(s)]
[Names(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) 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. In all cases, the surety’s liability is limited to the per-occurrence and annual aggregate penal sums.

(d) The owner or operator who uses a surety bond to satisfy the requirements of §280.93 must establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Director under §280.108. This standby trust fund must meet the requirements specified in §280.103.

§ 280.99 Letter of credit.

(a) An owner or operator may satisfy the requirements of §280.93 by obtaining an irrevocable standby letter of credit that conforms to the requirements of this section. The issuing institution must be an entity that has the authority to issue letters of credit in each state where used and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(b) The letter of credit 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

[Name and address of issuing institution]
[Name and address of Director(s) of state implementing agency(ies)]

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 or operator name] at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars [$(insert dollar amount)], available upon presentation [insert, if more than one Director of a state implementing agency 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 Subtitle I of the Resource Conservation and Recovery Act of 1976, as amended.”

This letter of credit may be drawn on to cover [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “non-sudden accidental releases” or “accidental releases”] arising from operating the underground storage tank(s) identified below in the amount of [in words] $(insert dollar amount) per occurrence and [in words] $(insert dollar amount) annual aggregate:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers’ compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
§ 280.100 Use of state-required mechanism.

(a) For underground storage tanks located in a state that does not have an approved program, and where the state requires owners or operators of underground storage tanks to demonstrate financial responsibility for taking corrective action and/or for compensating third parties for bodily injury and property damage, an owner or operator may use a state-required financial mechanism to meet the requirements of §280.93 if the Regional Administrator determines that the state mechanism is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state-required mechanism principally in terms of: certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state, an owner or operator, or any other interested party may submit to the Regional Administrator a written petition requesting that one or more of the state-required mechanisms be considered acceptable for meeting the requirements of §280.93. The submission must include copies of the appropriate state statutory and regulatory requirements and must show the amount of funds for corrective action and/or for compensating third parties...
assured by the mechanism(s). The Regional Administrator may require the petitioner to submit additional information as is deemed necessary to make this determination.

(d) Any petition under this section may be submitted on behalf of all of the state’s underground storage tank owners and operators.

(e) The Regional Administrator will notify the petitioner of his determination regarding the mechanism’s acceptability in lieu of financial mechanisms specified in this subpart. Pending this determination, the owners and operators using such mechanisms will be deemed to be in compliance with the requirements of §280.93 for underground storage tanks located in the state for the amounts and types of costs covered by such mechanisms.

§ 280.101 State fund or other state assurance.

(a) An owner or operator may satisfy the requirements of §280.93 for underground storage tanks located in a state, where EPA is administering the requirements of this subpart, which assures that monies will be available from a state fund or state assurance program to cover costs up to the limits specified in §280.93 or otherwise assures that such costs will be paid if the Regional Administrator determines that the state’s assurance is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state fund or other state assurance principally in terms of: Certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state must submit to the Regional Administrator a description of the state fund or other state assurance to be supplied as financial assurance, along with a list of the classes of underground storage tanks to which the funds may be applied. The Regional Administrator may require the state to submit additional information as is deemed necessary to make a determination regarding the acceptability of the state fund or other state assurance. Pending the determination by the Regional Administrator, the owner or operator of a covered class of USTs will be deemed to be in compliance with the requirements of §280.93 for the amounts and types of costs covered by the state fund or other state assurance.

(d) The Regional Administrator will notify the state of his determination regarding the acceptability of the state’s fund or other assurance in lieu of financial mechanisms specified in this subpart. Within 60 days after the Regional Administrator notifies a state that a state fund or other state assurance is acceptable, the state must provide to each owner or operator for which it is assuming financial responsibility a letter or certificate describing the nature of the state’s assumption of responsibility. The letter or certificate from the state must include, or have attached to it, the following information: the facility’s name and address and the amount of funds for corrective action and/or for compensating third parties that is assured by the state.

The owner or operator must maintain this letter or certificate on file as proof of financial responsibility in accordance with §280.107(b)(5).

§ 280.102 Trust fund.

(a) An owner or operator may satisfy the requirements of §280.93 by establishing a trust fund that conforms to the requirements of this section. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal agency or an agency of the state in which the fund is established.

(b) The wording of the trust agreement must be identical to the wording specified in §280.103(b)(1), and must be accompanied by a formal certification of acknowledgement as specified in §280.103(b)(2).

(c) The trust fund, when established, must be funded for the full required amount of coverage, or funded for part of the required amount of coverage and
Environmental Protection Agency

§ 280.103 Standby trust fund.

(a) An owner or operator using any one of the mechanisms authorized by §§ 280.96, 280.98, or 280.99 must establish a standby trust fund when the mechanism is acquired. The trustee of the standby trust fund must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal agency or an agency of the state in which the fund is established.

(b)(1) The standby trust agreement, or trust agreement, 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 corporation 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 an underground storage tank shall provide assurance that funds will be available when needed for corrective action and third-party

compensation for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from the operation of the underground storage tank. The attached Schedule A lists the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located that are covered by the standpoint trust agreement.

[Whereas, the Grantor has elected to establish [insert either “a guarantee,” “surety bond,” or “letter of credit”] to provide all or part of such financial assurance for the underground storage tanks identified herein and is required to establish a standby trust fund able to accept payments from the instrument (This paragraph is only applicable to the standby trust agreement).]

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 the Financial Assurance Mechanism

This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement)].

Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a trust fund, the “Fund,” for the benefit of [implementing agency]. 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 a standby to receive payments and shall not consist of any property.] Payments made by the provider of financial assurance pursuant to [the Director of the implementing agency’s] instructions are transferred to the Trustee and are 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 as provider of financial assurance, any payments necessary to discharge any liability of the Grantor established by [the state implementing agency]

Section 4. Payment for (“Corrective Action” and/or “Third-Party Liability Claims”)

The Trustee shall make payments from the Fund as [the Director of the implementing agency] shall direct, in writing, to provide for the payment of the costs of [insert: “taking corrective action” and/or compensating third parties for bodily injury and property damage caused by”] either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases” arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers’ compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93;

(f) The Trustee shall reimburse the Grantor, or other persons as specified by [the Director], from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as [the Director] shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as [the Director] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined hereinafter.

Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of cash and 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 beneficiaries 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:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the tanks, 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 securities 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 in-
quire into the validity or expediency of any
such sale or other disposition;
(b) To make, execute, acknowledge, and de-
 deliver any and all documents of transfer and
conveyance and any and all other instru-
ments 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 certifi-
cates representing such securities with cer-
tificates of the same issue held by the Trust-
ee 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 per-
son, or to deposit or arrange for the deposit
of any securities issued by the United States
Government, or any agency or instrument-
ality thereof, with a Federal Reserve bank,
but the books and records of the Trustee
shall at all times show that all such securi-
ties are part of the Fund;
(d) To deposit any cash in the Fund in in-
terest-bearing accounts maintained or sav-
ings 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 ren-
dered to the Trustee, the compensation of
the Trustee to the extent not paid directly
by the Grantor, and all other proper charg-
es and disbursements of the Trustee shall be
paid from the Fund.

Section 10. Advice of Counsel
The Trustee may from time to time con-
sult with counsel, who may be counsel to the
Grantor, with respect to any questions aris-
ing as to the construction of this Agreement
or any action to be taken hereunder. The
Trustee shall be fully protected, to the ex-
tent permitted by law, in acting upon the ad-
vice of counsel.

Section 11. Trustee Compensation
The Trustee shall be entitled to reasonable
compensation for its services as agreed upon
in writing from time to time with the Grant-
or.

Section 12. Successor Trustee
The Trustee may resign or the Grantor
may replace the Trustee, but such resigna-
tion or replacement shall not be effective
until the Grantor has appointed a successor
trustee and this successor accepts the ap-
pointment. The successor trustee shall have
the same powers and duties as those con-
ferred upon the Trustee hereunder. Upon the
successor trustee’s acceptance of the ap-
pointment, the Trustee shall assign, trans-
fer, 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 resigna-
tion of the Trustee, the Trustee may apply
to a court of competent jurisdiction for the
appointment of a successor trustee or for in-
structions. The successor trustee shall spe-
cify the date on which it assumes administra-
tion of the trust in writing sent to the
Grantor and the present Trustee by certified
mail 10 days before such change becomes ef-
effective. Any expenses incurred by the Trust-
ee as a result of any of the acts contem-
plated by this Section shall be paid as
provided in Section 9.

Section 13. Instructions to the Trustee
All orders, requests, and instructions by
the Grantor to the Trustee shall be in writ-
ing, signed by such persons as are designated
in the attached Schedule B or such other
designees as the Grantor may designate by
amendment to Schedule B. The Trustee shall
be fully protected in acting without inquiry
in accordance with the Grantor’s orders, re-
quests, and instructions. All orders, re-
quests, and instructions by [the Director of
the implementing agency] to the Trustee
shall be in writing, signed by [the Director],
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 con-
trary, that no event constituting a change or
a termination of the authority of any person
to act on behalf of the Grantor or [the direc-
tor] 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 [the Director], except as
provided for herein.

Section 14. Amendment of Agreement
This Agreement may be amended by an in-
strument in writing executed by the Grantor
and the Trustee, or by the Trustee and [the
Director of the implementing agency] if the
Grantor ceases to exist.
Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and (the Director of the implementing agency), 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 16. 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 Director of the implementing agency) issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, 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 17. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the state of (insert name of state), or the Comptroller of the Currency in the case of National Association banks.

Section 18. 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 (if applicable) 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 280.103(b)(1) as such regulations were constituted on the date written above.

[Signature of Grantor]
[Name of the Grantor]
[Title]

[Seal]

[Signature of Notary Public]
[Name of Notary Public]

(c) The Director of the implementing agency will instruct the trustee to refund the balance of the standby trust fund to the provider of financial assurance if the Director determines that no additional corrective action costs or third-party liability claims will occur as a result of a release covered by the financial assurance mechanism for which the standby trust fund was established.

(d) An owner or operator may establish one trust fund as the depository mechanism for all funds assured in compliance with this rule.

40 CFR Ch. I (7–1–12 Edition)

§ 280.104 Local government bond rating test.

(a) A general purpose local government owner or operator and/or local government serving as a guarantor may satisfy the requirements of §280.93 by having a currently outstanding issue or issues of general obligation bonds of $1 million or more, excluding refunded obligations, with a Moody’s rating of Aaa, Aa, A, or Baa, or a Standard & Poor’s rating of AAA, AA, A, or BBB. Where a local government has multiple outstanding issues, or where a local government’s bonds are rated by both Moody’s and Standard and Poor’s, the lowest rating must be
used to determine eligibility. Bonds that are backed by credit enhancement other than municipal bond insurance may not be considered in determining the amount of applicable bonds outstanding.

(b) A local government owner or operator or local government serving as a guarantor that is not a general-purpose local government and does not have the legal authority to issue general obligation bonds may satisfy the requirements of §280.93 by having a currently outstanding issue or issues of revenue bonds of $1 million or more, excluding refunded issues and by also having a Moody’s rating of Aaa, A, A, or Baa, or a Standard & Poor’s rating of AAA, AA, A, or BBB as the lowest rating for any rated revenue bond issued by the local government. Where bonds are rated by both Moody’s and Standard & Poor’s, the lower rating for each bond must be used to determine eligibility. Bonds that are backed by credit enhancement may not be considered in determining the amount of applicable bonds outstanding.

(c) The local government owner or operator and/or guarantor must maintain a copy of its bond rating published within the last 12 months by Moody’s or Standard & Poor’s.

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody’s or Standard & Poor’s are rated as at least investment grade (Moody’s Baa or Standard & Poor’s BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR Part 280.104(d) as such regulations were constituted on the date shown immediately below.

(d) To demonstrate that it meets the local government bond rating test, the chief financial officer of a general purpose local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage”] caused by [insert: “sudden accidental releases” and/or “nonsudden accidental releases”] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

<table>
<thead>
<tr>
<th>Issue date</th>
<th>Maturity date</th>
<th>Outstanding amount</th>
<th>Bond rating</th>
<th>Rating agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Moody’s or Standard &amp; Poor’s]</td>
<td></td>
</tr>
</tbody>
</table>

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody’s or Standard & Poor’s are rated as at least investment grade (Moody’s Baa or Standard & Poor’s BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR Part 280.104(d) as such regulations were constituted on the date shown immediately below.

(e) To demonstrate that it meets the local government bond rating test, the chief financial officer of local government owner or operator and/or guarantor other than a general purpose government must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to
demonstrate financial responsibility for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage”] caused by [insert: “sudden accidental releases” and/or “nonsudden accidental releases”] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s). This local government is not organized to provide general governmental services and does not have the legal authority under state law or constitutional provisions to issue general obligation debt.

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding revenue bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

<table>
<thead>
<tr>
<th>Issue date</th>
<th>Maturity date</th>
<th>Outstanding amount</th>
<th>Bond rating</th>
<th>Rating agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Moody’s or Standard &amp; Poor’s]</td>
</tr>
</tbody>
</table>

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding revenue bonds issued by this government that have been rated by Moody’s or Standard & Poor’s are rated as at least investment grade (Moody’s Baa or Standard & Poor’s BBB) based on the most recent ratings published within the last 12 months. The revenue bonds listed are not backed by third-party credit enhancement or are insured by a municipal bond insurance company. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.104(e) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

(g) If a local government owner or operator using the bond rating test to provide financial assurance finds that it no longer meets the bond rating test requirements, the local government owner or operator must obtain alternative coverage within 150 days of the change in status.

[58 FR 9053, Feb. 18, 1993]

§ 280.105 Local government financial test.

(a) A local government owner or operator may satisfy the requirements of §280.93 by passing the financial test specified in this section. To be eligible to use the financial test, the local government owner or operator must have the ability and authority to assess and levy taxes or to freely establish fees and charges. To pass the local government financial test, the owner or operator must meet the criteria of paragraphs (b)(2) and (b)(3) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The local government owner or operator must have the following information available, as shown in the year-end financial statements for the latest completed fiscal year:

(i) Total revenues: Consists of the sum of general fund operating and non-operating revenues including net local taxes, licenses and permits, fines and forfeitures, revenues from use of money and property, charges for services, investment earnings, sales (property, publications, etc.), intergovernmental revenues (restricted and unrestricted),
and total revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity. For purposes of this test, the calculation of total revenues shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers), liquidation of investments, and issuance of debt.

(ii) Total expenditures: Consists of the sum of general fund operating and non-operating expenditures including public safety, public utilities, transportation, public works, environmental protection, cultural and recreational, community development, revenue sharing, employee benefits and compensation, office management, planning and zoning, capital projects, interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues. For purposes of this test, the calculation of total expenditures shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers).

(iii) Local revenues: Consists of total revenues (as defined in paragraph (b)(1)(i) of this section) minus the sum of all transfers from other governmental entities, including all monies received from Federal, state, or local government sources.

(iv) Debt service: Consists of the sum of all interest and principal payments on all long-term credit obligations and all interest-bearing short-term credit obligations. Includes interest and principal payments on general obligation bonds, revenue bonds, notes, mortgages, judgments, and interest bearing warrants. Excludes payments on non-interest-bearing short-term obligations, interfund obligations, amounts owed in a trust or agency capacity, and advances and contingent loans from other governments.

(v) Total funds: Consists of the sum of cash and investment securities from all funds, including general, enterprise, debt service, capital projects, and special revenue funds, but excluding employee retirement funds, at the end of the local government’s financial reporting year. Includes Federal securities, Federal agency securities, state and local government securities, and other securities such as bonds, notes and mortgages. For purposes of this test, the calculation of total funds shall exclude agency funds, private trust funds, accounts receivable, value of real property, and other non-security assets.

(vi) Population consists of the number of people in the area served by the local government.

(2) The local government’s year-end financial statements, if independently audited, cannot include an adverse auditor’s opinion or a disclaimer of opinion. The local government cannot have outstanding issues of general obligation or revenue bonds that are rated as less than investment grade.

(3) The local government owner or operator must have a letter signed by the chief financial officer worded as specified in paragraph (c) of this section.

(c) To demonstrate that it meets the financial test under paragraph (b) of this section, the chief financial officer of the local government owner or operator, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator]. This letter is in support of the use of the local government financial test to demonstrate financial responsibility for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage”] caused by [insert: “sudden accidental releases” and/or “nonsudden accidental releases”] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating [an] underground storage tank[s].

Underground storage tanks at the following facilities are assured by this financial test [List for each facility: the name and address of the facility where tanks assured by
This owner or operator has not received an adverse opinion, or a disclaimer of opinion from an independent auditor on its financial statements for the latest completed fiscal year. Any outstanding issues of general obligation or revenue bonds, if rated, have a Moody’s rating of Aaa, Aa, A, or Baa or a Standard and Poor’s rating of AAA, AA, A, or BBB; if rated by both firms, the bonds have a Moody’s rating of Aaa, Aa, A, or Baa and a Standard and Poor’s rating of AAA, AA, A, or BBB.

**WORKSHEET FOR MUNICIPAL FINANCIAL TEST**

**Part I: Basic Information**

1. **Total Revenues**
   a. Revenues (dollars)
      Value of revenues excludes liquidation of investments and issuance of debt. Value includes all general fund operating and non-operating revenues, as well as all revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity.
   b. Subtract interfund transfers (dollars)
   c. Total Revenues (dollars)

2. **Total Expenditures**
   a. Expenditures (dollars)
      Value consists of the sum of general fund operating and non-operating expenditures including interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues.
   b. Subtract interfund transfers (dollars)
   c. Total Expenditures (dollars)

3. **Local Revenues**
   a. Total Revenues (from 1c) (dollars)
   b. Subtract total intergovernmental transfers (dollars)
   c. Local Revenues (dollars)

4. **Debt Service**
   a. Interest and fiscal charges (dollars)
   b. Add debt retirement (dollars)
   c. Total Debt Service (dollars)

5. **Total Funds (Dollars)**
   (Sum of amounts held as cash and investment securities from all funds, excluding amounts held for employee retirement funds, agency funds, and trust funds)

6. **Population (Persons)**

**Part II: Application of Test**

7. **Total Revenues to Population**
   a. Total Revenues (from 1c)
   b. Population (from 6)
   c. Divide 7a by 7b
   d. Subtract 417
   e. Divide by 5,212
   f. Multiply by 4.095

8. **Total Expenses to Population**
   a. Total Expenses (from 2c)
   b. Population (from 6)
   c. Divide 8a by 8b
   d. Subtract 524
   e. Divide by 5,401
   f. Multiply by 4.095

9. **Local Revenues to Total Revenues**
   a. Local Revenues (from 3c)
   b. Total Revenues (from 1c)
   c. Divide 9a by 9b
   d. Subtract .695
   e. Divide by .205
   f. Multiply by 2.840

10. **Debt Service to Population**
    a. Debt Service (from 4d)
    b. Population (from 6)
    c. Divide 10a by 10b
    d. Subtract 51
    e. Divide by 1,038
    f. Multiply by 1.866

11. **Debt Service to Total Revenues**
    a. Debt Service (from 4d)
    b. Total Revenues (from 1c)
    c. Divide 11a by 11b
    d. Subtract .068
    e. Divide by .259
    f. Multiply by 3.533

12. **Total Revenues to Total Expenses**
    a. Total Revenues (from 1c)
    b. Total Expenses (from 2c)
    c. Divide 12a by 12b
    d. Subtract .910
    e. Divide by .899
    f. Multiply by 3.458

13. **Funds Balance to Total Revenues**
    a. Total Funds (from 5)
    b. Total Revenues (from 1c)
    c. Divide 13a by 13b
    d. Subtract .891
    e. Divide by 3.458
    f. Multiply by 3.270
14. Funds Balance to Total Expenses
a. Total Funds (from 5) 
llllll
b. Total Expenses (from 2c) 
llllll
c. Divide 14a by 14b 
llllll
d. Subtract .866 
llllll
e. Divide by 6.409 
llllll
f. Multiply by 3.270 
llllll

15. Total Funds to Population 

a. Total Funds (from 5) 
llllll
b. Population (from 6) 
llllll
c. Divide 15a by 15b 
llllll
d. Subtract 270 
llllll
e. Divide by 4,548 
llllll
f. Multiply by 1.866 
llllll

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937 
llllll

I hereby certify that the financial index shown on line 16 of the worksheet is greater than zero and that the wording of this letter is identical to the wording specified in 40 CFR part 280.105(c) as such regulations were constituted on the date shown immediately below.
[Date]
[Signature]
[Name]
[Title]

(d) If a local government owner or operator using the test to provide financial assurance finds that it no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternate coverage within 150 days of the end of the year for which financial statements have been prepared.

(e) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator. If the Director finds, on the basis of such reports or other information, that the local government owner or operator no longer meets the financial test requirements of §280.105 (b) and (c), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(f) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the financial test based on the year-end financial statements or within 30 days of notification by the Director of the implementing agency that it no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

[58 FR 9054, Feb. 18, 1993]

§ 280.106 Local government guarantee.

(a) A local government owner or operator may satisfy the requirements of §280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be either the state in which the local government owner or operator is located or a local government having a “substantial governmental relationship” with the owner and operator and issuing the guarantee as an act incident to that relationship. A local government acting as the guarantor must:

(1) demonstrate that it meets the bond rating test requirement of §280.104 and deliver a copy of the chief financial officer’s letter as contained in §280.104(c) to the local government owner or operator; or

(2) demonstrate that it meets the worksheet test requirements of §280.105 and deliver a copy of the chief financial officer’s letter as contained in §280.105(c) to the local government owner or operator; or

(3) demonstrate that it meets the local government fund requirements of §280.107(a), §280.107(b), or §280.107(c) and deliver a copy of the chief financial officer’s letter as contained in §280.107 to the local government owner or operator.

(b) If the local government guarantor is unable to demonstrate financial assurance under any of §§280.104, 280.105, 280.107(a), 280.107(b), or §280.107(c), at the end of the financial reporting year, the guarantor shall send by certified mail, before cancellation or non-renewal of the guarantee, notice to the owner or operator. The guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in §280.114(c).

(c) The guarantee agreement must be worded as specified in paragraph (d) or (e) of this section, depending on which of the following alternative guarantee arrangements is selected:

(1) If, in the default or incapacity of the owner or operator, the guarantor
guarantees to fund a standby trust as directed by the Director of the implementing agency, the guarantee shall be worded as specified in paragraph (d) of this section.

(2) If, in the default or incapacity of the owner or operator, the guarantor guarantees to make payments as directed by the Director of the implementing agency for taking corrective action or compensating third parties for bodily injury and property damage, the guarantee shall be worded as specified in paragraph (e) of this section.

(d) If the guarantor is a state, the local government guarantee with standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

Local Government Guarantee With Standby Trust Made by a State

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases”]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

Guarantor agrees to notify [owner or operator] 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.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

The guarantor’s obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers’ compensation, disability benefits, or unemployment compensation law or other similar law;
Environmental Protection Agency

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(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];
(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;
(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(b) Waiver of instructions in brackets are to be replaced with relevant information and the brackets deleted:

LOCAL GOVERNMENT GUARANTEE WITH STAND-BY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator],

Recitals

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR part 280.104, the local government financial test requirements of 40 CFR part 280.105, or the local government financial test requirements of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above].
(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located.]

If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from the operation of the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local government owner or operator], guarantor guarantees to [Implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.
In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.
If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR part 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

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(4) Guarantor agrees that, if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility requirements specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] 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.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor’s obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers’ compensation, disability benefits, or unemployment compensation law or other similar law;
(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];
(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;
(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(b) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator]. I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(d) as such regulations were constituted on the effective date shown immediately below.

Effective date: [Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary:

(e) If the guarantor is a state, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

LOCAL GOVERNMENT GUARANTEE WITHOUT STANDBY TRUST MADE BY A STATE

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: ‘‘taking corrective action’’ and/or ‘‘compensating third parties for bodily injury and property damage caused by’’ either ‘‘sudden accidental releases’’ or ‘‘nonsudden accidental releases’’; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director]...
shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [''sudden'' and/or ''nonsudden''] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees to notify [owner or operator] 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.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

(7) The guarantor’s obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers’ compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(8) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(e) as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary:

If the guarantor is a local government, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

LOCAL GOVERNMENT GUARANTEE WITHOUT STANDBY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR part 280.104, the local government financial test requirements of 40 CFR part 280.109, the local government fund under 40 CFR part 280.107(a), 280.107(b), or 280.107(c)].

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more...
than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” and/or “sudden accidental releases” and/or “nonsudden accidental releases” and/or “accidental releases”]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local government owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director] shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees that if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] 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.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

(8) The guarantor’s obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers’ compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.

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§ 280.107 Local government fund.

A local government owner or operator may satisfy the requirements of §280.93 by establishing a dedicated fund account that conforms to the requirements of this section. Except as specified in paragraph (b), a dedicated fund may not be commingled with other funds or otherwise used in normal operations. A dedicated fund will be considered eligible if it meets one of the following requirements:

(a) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks and is funded for the full amount of coverage required under §280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage; or

(b) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order as a contingency fund for general emergencies, including taking corrective action and compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks, and is funded for five times the full amount of coverage required under §280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage. If the fund is funded for less than five times the amount of coverage required under §280.93, the amount of financial responsibility demonstrated by the fund may not exceed one-fifth the amount in the fund; or

(c) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks. A payment is made to the fund once every year for seven years until the fund is fully-funded. This seven year period is hereafter referred to as the “pay-in-period.” The amount of each payment must be determined by this formula:

\[
\frac{\text{TF} - \text{CF}}{\text{Y}}
\]

Where TF is the total required financial assurance for the owner or operator, CF is the current amount in the fund, and Y is the number of years remaining in the pay-in-period, and:

(1) The local government owner or operator has available bonding authority, approved through voter referendum (if such approval is necessary prior to the issuance of bonds), for an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund. This bonding authority shall be available for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks, or

(2) The local government owner or operator has a letter signed by the appropriate state attorney general stating that the use of the bonding authority will not increase the local government’s debt beyond the legal debt ceilings established by the relevant state laws. The letter must also state that prior voter approval is not necessary before use of the bonding authority.

(d) To demonstrate that it meets the requirements of the local government fund, the chief financial officer of the local government owner or operator and/or guarantor must sign a letter.
Let's start by examining the given letter from the chief financial officer. It contains instructions that need to be replaced with specific information. Let's break it down into manageable parts.

**Letter from Chief Financial Officer**

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the local government fund mechanism to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' and/or ''nonsudden accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this local government fund mechanism: [List for each facility: the name and address of the facility where tanks are assured by the local government fund].

[Insert: ''The local government fund is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage.''] or [Insert: ''The local government fund is funded for ten times the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage.''] or [Insert: ''A payment is made to the fund once every year for seven years until the fund is fully-funded and [name of local government owner or operator] has available bonding authority, approved through voter referendum, of an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund.''] or [Insert: ''A payment is made to the fund once every year for seven years until the fund is fully-funded and I have attached a letter signed by the State Attorney General stating that (1) the use of the bonding authority will not increase the local government’s debt beyond the legal debt ceilings established by the relevant state laws and (2) that prior voter approval is not necessary before use of the bonding authority'']

The details of the local government fund are as follows:

- **Amount in Fund (market value of fund at close of last fiscal year):** [insert amount]
- **Number of years remaining in the pay-in period:** [insert number]
- **A copy of the state constitutional provision, or local government statute, charter, ordinance or order dedicating the fund is attached.**

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.107(d) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

[58 FR 9059, Feb. 18, 1993]

**§ 280.108 Substitution of financial assurance mechanisms by owner or operator.**

(a) An owner or operator may substitute any alternate financial assurance mechanisms as specified in this subpart, provided that at all times he maintains an effective financial assurance mechanism or combination of mechanisms that satisfies the requirements of § 280.93.

(b) After obtaining alternate financial assurance as specified in this subpart, an owner or operator may cancel a financial assurance mechanism by providing notice to the provider of financial assurance.


**§ 280.109 Cancellation or nonrenewal by a provider of financial assurance.**

(a) Except as otherwise provided, a provider of financial assurance may cancel or fail to renew an assurance mechanism by sending a notice of termination by certified mail to the owner or operator.

(1) Termination of a local government guarantee, a guarantee, a surety bond, or a letter of credit may not occur until 120 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(2) Termination of insurance or risk retention coverage, except for non-payment or misrepresentation by the insured, or state-funded assurance may not occur until 60 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.
Environmental Protection Agency

§ 280.111 Recordkeeping.

(a) Owners or operators must maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility under this subpart for an underground storage tank until released from the requirements of this subpart under §208.113. An owner or operator must maintain such evidence at the underground storage tank site or the owner’s or operator’s place of work. Records maintained off-site must be made available upon request of the implementing agency.

(b) An owner or operator must maintain the following types of evidence of financial responsibility:

(1) An owner or operator using an assurance mechanism specified in §§280.95 through 280.100 or §§280.102 or §§280.104 through 280.107 must maintain a copy of the instrument worded as specified.

(2) An owner or operator using a financial test or guarantee, or a local government financial test or a local government guarantee supported by the local government financial test must maintain a copy of the chief financial officer’s letter based on year-end financial statements for the most recent completed financial reporting year. Such evidence must be on file no later than 120 days after the close of the financial reporting year.

(3) An owner or operator using a guarantee, surety bond, or letter of credit must maintain a copy of the signed standby trust fund agreement evidenced by the return receipt. Termination for non-payment of premium or misrepresentation by the insured may not occur until a minimum of 10 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(b) If a provider of financial responsibility cancels or fails to renew for reasons other than incapacity of the provider as specified in §280.114, the owner or operator must obtain alternate coverage as specified in this section within 60 days after receipt of the notice of termination. If the owner or operator fails to obtain alternate coverage within 60 days after receipt of the notice of termination, the owner or operator must notify the Director of the implementing agency of such failure and submit:

(1) The name and address of the provider of financial assurance;

(2) The effective date of termination; and

(3) The evidence of the financial assistance mechanism subject to the termination maintained in accordance with §280.107(b).

[58 FR 9051, Feb. 18, 1993]

§ 280.110 Reporting by owner or operator.

(a) An owner or operator must submit the appropriate forms listed in §280.111(b) documenting current evidence of financial responsibility to the Director of the implementing agency:

(1) Within 30 days after the owner or operator identifies a release from an underground storage tank required to be reported under §280.53 or §280.61;

(2) If the owner or operator fails to obtain alternate coverage as required by this subpart, within 30 days after the owner or operator receives notice of:

(i) Commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a provider of financial assurance as a debtor;

(ii) Suspension or revocation of the authority of a provider of financial assurance to issue a financial assurance mechanism;

(iii) Failure of a guarantor to meet the requirements of the financial test,

(iv) Other incapacity of a provider of financial assurance; or

(3) As required by §280.95(g) and §280.109(b).

(b) An owner or operator must certify compliance with the financial responsibility requirements of this part as specified in the new tank notification form when notifying the appropriate state or local agency of the installation of a new underground storage tank under §280.22.

(c) The Director of the Implementing Agency may require an owner or operator to submit evidence of financial assurance as described in §280.111(b) or other information relevant to compliance with this subpart at any time.

[58 FR 9051, Feb. 18, 1993]
§ 280.112 Drawing on financial assurance mechanisms.

(a) Except as specified in paragraph (d) of this section, the Director of the implementing agency shall require the guarantor, surety, or institution issuing a letter of credit to place the

and copies of any amendments to the agreement.

(4) A local government owner or operator using a local government guarantee under §280.106(d) must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(5) A local government owner or operator using the local government bond rating test under §280.104 must maintain a copy of its bond rating published within the last twelve months by Moody’s or Standard & Poor’s.

(6) A local government owner or operator using the local government guarantee under §280.106, where the guarantor’s demonstration of financial responsibility relies on the bond rating test under §280.104 must maintain a copy of the guarantor’s bond rating published within the last twelve months by Moody’s or Standard & Poor’s.

(7) An owner or operator using an insurance policy or risk retention group coverage must maintain a copy of the signed insurance policy or risk retention group coverage policy, with the endorsement or certificate of insurance and any amendments to the agreements.

(8) An owner or operator covered by a state fund or other state assurance must maintain on file a copy of any evidence of coverage supplied by or required by the state under §280.101(d).

(9) An owner or operator using a local government fund under §280.107 must maintain the following documents:

(i) A copy of the state constitutional provision or local government statute, charter, ordinance, or order dedicating the fund, and

(ii) Year-end financial statements for the most recent completed financial reporting year showing the amount in the fund. If the fund is established under §280.107(a)(3) using incremental funding backed by bonding authority, the financial statements must show the previous year’s balance, the amount of funding during the year, and the closing balance in the fund.

(iii) If the fund is established under §280.107(a)(3) using incremental funding backed by bonding authority, the owner or operator must also maintain documentation of the required bonding authority, including either the results of a voter referendum (under §280.107(a)(3)(i)), or attestation by the State Attorney General as specified under §280.107(a)(3)(ii).

(10) A local government owner or operator using the local government guarantee supported by the local government fund must maintain a copy of the guarantor’s year-end financial statements for the most recent completed financial reporting year showing the amount of the fund.

(11)(i) An owner or operator using an assurance mechanism specified in §§280.95 through 280.107 must maintain an updated copy of a certification of financial responsibility worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF FINANCIAL RESPONSIBILITY

[Owner or operator] hereby certifies that it is in compliance with the requirements of subpart H of 40 CFR part 280.

The financial assurance mechanism(s) used to demonstrate financial responsibility under subpart H of 40 CFR part 280 is (are) as follows:

[For each mechanism, list the type of mechanism, name of issuer, mechanism number (if applicable), amount of coverage, effective period of coverage and whether the mechanism covers “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases.”]

[Signature of owner or operator]
[Name of owner or operator]
[Title]
[Date]
[Signature of witness or notary]
[Name of witness or notary]
[Date]

(ii) The owner or operator must update this certification whenever the financial assurance mechanism(s) used to demonstrate financial responsibility change(s).

[58 FR 9051, Feb. 18, 1993]
amount of funds stipulated by the Director, up to the limit of funds provided by the financial assurance mechanism, into the standby trust if:

(1)(i) The owner or operator fails to establish alternate financial assurance within 60 days after receiving notice of cancellation of the guarantee, surety bond, letter of credit, or, as applicable, other financial assurance mechanism; and

(ii) The Director determines or suspects that a release from an underground storage tank covered by the mechanism has occurred and so notifies the owner or operator or the owner or operator has notified the Director pursuant to subparts E or F of a release from an underground storage tank covered by the mechanism; or

(2) The conditions of paragraph (b)(1) or (b)(2)(i) or (ii) of this section are satisfied.

(b) The Director of the implementing agency may draw on a standby trust fund when:

(1) The Director makes a final determination that a release has occurred and immediate or long-term corrective action for the release is needed, and the owner or operator, after appropriate notice and opportunity to comply, has not conducted corrective action as required under 40 CFR part 280, subpart F; or

(2) The Director has received either:

(i) Certification from the owner or operator and the third-party liability claimant(s) and from attorneys representing the owner or operator and the third-party liability claimant(s) that a third-party liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as principals and as legal representatives of [insert: owner or operator] and [insert: name and address of third-party claimant], hereby certify that the claim of bodily injury [and/or] property damage caused by an accidental release arising from operating [owner’s or operator’s] underground storage tank should be paid in the amount of $[ ].

[Signatures]
Owner or Operator
Attorney for Owner or Operator

Notary
Date
[Signatures]
Claimant(s)
Attorney(s) for Claimant(s)
Notary
Date
or (ii) A valid final court order establishing a judgment against the owner or operator for bodily injury or property damage caused by an accidental release from an underground storage tank covered by financial assurance under this subpart and the Director determines that the owner or operator has not satisfied the judgment.

(c) If the Director of the implementing agency determines that the amount of corrective action costs and third-party liability claims eligible for payment under paragraph (b) of this section may exceed the balance of the standby trust fund and the obligation of the provider of financial assurance, the first priority for payment shall be corrective action costs necessary to protect human health and the environment. The Director shall pay third-party liability claims in the order in which the Director receives certifications under paragraph (b)(2)(i) of this section, and valid court orders under paragraph (b)(2)(ii) of this section.

(d) A governmental entity acting as guarantor under §280.106(e), the local government guarantee without standby trust, shall make payments as directed by the Director under the circumstances described in §280.112 (a), (b), and (c).

[58 FR 9052, Feb. 18, 1993]

§280.113 Release from the requirements.

An owner or operator is no longer required to maintain financial responsibility under this subpart for an underground storage tank after the tank has been properly closed or, if corrective action is required, after corrective action has been completed and the tank has been properly closed as required by 40 CFR part 280, subpart G.


§280.114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.

(a) Within 10 days after commencement of a voluntary or involuntary
§ 280.115 Replenishment of guarantees, letters of credit, or surety bonds.

(a) If at any time after a standby trust is funded upon the instruction of the Director of the implementing agency with funds drawn from a guarantee, local government guarantee with standby trust, letter of credit, or surety bond, and the amount in the standby trust is reduced below the full amount of coverage required, the owner or operator shall by the anniversary date of the financial mechanism from which the funds were drawn:

(1) Replenish the value of financial assurance to equal the full amount of coverage required, or

(2) Acquire another financial assurance mechanism for the amount by which funds in the standby trust have been reduced.

(b) For purposes of this section, the full amount of coverage required is the amount of coverage to be provided by § 280.93 of this subpart. If a combination of mechanisms was used to provide the assurance funds which were drawn upon, replenishment shall occur by the earliest anniversary date among the mechanisms.

[58 FR 9053, Feb. 18, 1993]

§ 280.116 Suspension of enforcement.

[Reserved]
Environmental Protection Agency

§ 280.210 Participation in management.

The term “participating in the management of an UST or UST system” under 40 CFR part 280, subparts B, C, D, G, and §280.50 of subpart E.

(b) Petroleum production, refining, and marketing. (1) Petroleum production means the production of crude oil or other forms of petroleum (as defined in §280.12) as well as the production of petroleum products from purchased materials.

(2) Petroleum refining means the cracking, distillation, separation, conversion, upgrading, and finishing of refined petroleum or petroleum products.

(3) Petroleum marketing means the distribution, transfer, or sale of petroleum or petroleum products for wholesale or retail purposes.

(c) Indicia of ownership means evidence of a secured interest, evidence of an interest in a security interest, or evidence of an interest in real or personal property securing a loan or other obligation, including any legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. Evidence of such interests include, but are not limited to, mortgages, deeds of trust, liens, and title pursuant to lease financing transactions. Security interests may also arise from transactions such as sale and leasebacks, conditional sales, installment sales, trust receipt transactions, certain assignments, factoring agreements, accounts receivable financing arrangements, and consignments, if the transaction creates or establishes an interest in an UST or UST system or in the facility or property on which the UST or UST system is located, for the purpose of securing a loan or other obligation.

(1) Security interest means an interest in a petroleum UST or UST system or in the facility or property on which a petroleum UST or UST system is located, created or established for the purpose of securing a loan or other obligation. Security interests include but are not limited to mortgages, deeds of trusts, liens, and title pursuant to lease financing transactions. Security interests may also arise from transactions such as sale and leasebacks, conditional sales, installment sales, trust receipt transactions, certain assignments, factoring agreements, accounts receivable financing arrangements, and consignments, if the transaction creates or establishes an interest in a petroleum UST or UST system or in the facility or property on which the UST or UST system is located, for the purpose of securing a loan or other obligation.

(2) Primarily to protect a security interest, as used in this subpart, does not include indicia of ownership held primarily for investment purposes, nor ownership indicia held primarily for purposes other than as protection for a security interest. A holder may have other, secondary reasons for maintaining indicia of ownership, but the primary reason why any ownership indicia are held must be as protection for a security interest.

(g) Operation means, for purposes of this subpart, the use, storage, filling, or dispensing of petroleum contained in an UST or UST system.
§280.210 40 CFR Ch. I (7–1–12 Edition)

means that, subsequent to the effective date of this subpart, December 6, 1995, the holder is engaging in decision-making control of, or activities related to, operation of the UST or UST system, as defined herein.

(a) Actions that are participation in management.

(1) Participation in the management of an UST or UST system means, for purposes of this subpart, actual participation by the holder in the management or control of decision-making related to the operation of an UST or UST system. Participation in management does not include the mere capacity or ability to influence or the unexercised right to control UST or UST system operations. A holder is participating in the management of the UST or UST system only if the holder either:

(i) Exercises decisionmaking control over the operational (as opposed to financial or administrative) aspects of the UST or UST system, such that the holder has undertaken responsibility for all or substantially all of the management of the UST or UST system; or

(ii) Exercises control at a level comparable to that of a manager of the borrower's enterprise, such that the holder has assumed or manifested responsibility for the overall management of the enterprise encompassing the day-to-day decisionmaking of the enterprise with respect to all, or substantially all, of the operational (as opposed to financial or administrative) aspects of the enterprise.

(2) Operational aspects of the enterprise relate to the use, storage, filling, or dispensing of petroleum contained in an UST or UST system, and include functions such as that of a facility or plant manager, operations manager, chief operating officer, or chief executive officer. Financial or administrative aspects include functions such as that of a credit manager, accounts payable/receivable manager, personnel manager, controller, chief financial officer, or similar functions. Operational aspects of the enterprise do not include the financial or administrative aspects of the enterprise, or actions associated with environmental compliance, or actions undertaken voluntarily to protect the environment in accordance with applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 USC 6991c and 40 CFR part 281.

(b) Actions that are not participation in management pre-foreclosure.

(1) Actions at the inception of the loan or other transaction. No act or omission prior to the time that indicia of ownership are held primarily to protect a security interest constitutes evidence of participation in management within the meaning of this subpart. A prospective holder who undertakes or requires an environmental investigation (which could include a site assessment, inspection, and/or audit) of the UST or UST system or facility or property on which the UST or UST system is located (in which indicia of ownership are to be held), or requires a prospective borrower to clean up contamination from the UST or UST system or to comply or come into compliance (whether prior or subsequent to the time that indicia of ownership are held primarily to protect a security interest) with any applicable law or regulation, is not by such action considered to be participating in the management of the UST or UST system or facility or property on which the UST or UST system is located.

(2) Loan policing and work out. Actions that are consistent with holding ownership indicia primarily to protect a security interest do not constitute participation in management for purposes of this subpart. The authority for the holder to take such actions may, but need not, be contained in contractual or other documents specifying requirements for financial, environmental, and other warranties, covenants, conditions, representations or promises from the borrower. Loan policing and work out activities cover and include all such activities up to foreclosure, exclusive of any activities that constitute participation in management.

(i) Policing the security interest or loan.

(A) A holder who engages in policing activities prior to foreclosure will remain within the exemption provided that the holder does not together with
other actions participate in the management of the UST or UST system as provided in §280.210(a). Such policing actions include, but are not limited to, requiring the borrower to clean up contamination from the UST or UST system during the term of the security interest; requiring the borrower to comply or come into compliance with applicable federal, state, and local environmental and other laws, rules, and regulations during the term of the security interest; securing or exercising authority to monitor or inspect the UST or UST system or facility or property on which the UST or UST system is located (including on-site inspections) in which indicia of ownership are maintained, or the borrower’s business or financial condition during the term of the security interest; or taking other actions to adequately police the loan or security interest (such as requiring a borrower to comply with any warranties, covenants, conditions, representations, or promises from the borrower).

(B) Policing activities also include undertaking by the holder of UST environmental compliance actions and voluntary environmental actions taken in compliance with 40 CFR part 280, provided that the holder does not otherwise participate in the management or daily operation of the UST or UST system as provided in §280.210(a) and §280.230. Such allowable actions include, but are not limited to, release detection and release reporting, release response and corrective action, temporary or permanent closure of an UST or UST system, UST upgrading or replacement, and maintenance of corrosion protection. A holder who undertakes these actions must do so in compliance with the applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281. A holder may directly oversee these environmental compliance actions and voluntary environmental actions, and directly hire contractors to perform the work, and is not by such action considered to be participating in the management of the UST or UST system.

(ii) Loan work out. A holder who engages in work out activities prior to foreclosure will remain within the exemption provided that the holder does not together with other actions participate in the management of the UST or UST system as provided in §280.210(a). For purposes of this rule, “work out” refers to those actions by which a holder, at any time prior to foreclosure, seeks to prevent, cure, or mitigate a default by the borrower or obligor; or to preserve, or prevent the diminution of, the value of the security. Work out activities include, but are not limited to, restructuring or renegotiating the terms of the security interest; requiring payment of additional rent or interest; exercising forbearance; requiring or exercising rights pursuant to an assignment of accounts or other amounts owing to an obligor; requiring or exercising rights pursuant to an escrow agreement pertaining to amounts owing to an obligor; providing specific or general financial or other advice, suggestions, counseling, or guidance; and exercising any right or remedy the holder is entitled to by law or under any warranties, covenants, conditions, representations, or promises from the borrower.

(c) Foreclosure on an UST or UST system or facility or property on which an UST or UST system is located, and participation in management activities post-foreclosure.

(1) Foreclosure. (i) Indicia of ownership that are held primarily to protect a security interest include legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. For purposes of this subpart, the term “foreclosure” means that legal, marketable or equitable title or deed has been issued, approved, and recorded, and that the holder has obtained access to the UST, UST system, UST facility, and property on which the UST or UST system is located, provided that the holder acted diligently to acquire marketable title or deed and to gain access to the UST, UST system, UST facility, and property on which the UST or UST system is located. The indicia of ownership held after foreclosure continue to be maintained primarily as protection for a security interest provided that the
holder undertakes to sell, re-lease an UST or UST system or facility or property on which the UST or UST system is located, held pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), or otherwise divest itself of the UST or UST system or facility or property on which the UST or UST system is located, in a reasonably expeditious manner, using whatever commercially reasonable means are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, taking all facts and circumstances into consideration, and provided that the holder does not participate in management (as defined in §280.210(a)) prior to or after foreclosure.

(ii) For purposes of establishing that a holder is seeking to sell, re-lease pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), or divest in a reasonably expeditious manner an UST or UST system or facility or property on which the UST or UST system is located, the holder may use whatever commercially reasonable means as are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, the holder may use whatever commercially reasonable means as are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, or may employ the means specified in §280.210(c)(2). A holder that outbids, rejects, or fails to act upon a written bona fide, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located, as provided in §280.210(c)(2), is not considered to hold indicia of ownership primarily to protect a security interest.

(2) Holding foreclosed property for disposition and liquidation. A holder, who does not participate in management prior to or after foreclosure, may sell, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), an UST or UST system or facility or property on which the UST or UST system is located, liquidate, wind up operations, and take measures, prior to sale or other disposition, to preserve, protect, or prepare the secured UST or UST system or facility or property on which the UST or UST system is located. A holder may also arrange for an existing or new operator to continue or initiate operation of the UST or UST system. The holder may conduct these activities without voiding the security interest exemption, subject to the requirements of this subpart.

(i) A holder establishes that the ownership indicia maintained after foreclosure continue to be held primarily to protect a security interest by, within 12 months following foreclosure, listing the UST or UST system or the facility or property on which the UST or UST system is located, with a broker, dealer, or agent who deals with the type of property in question, or by advertising the UST or UST system or facility or property on which the UST or UST system is located, as being for sale or disposition on at least a monthly basis in either a real estate publication or a trade or other publication suitable for the UST or UST system or facility or property on which the UST or UST system is located, or a newspaper of general circulation (defined as one with a circulation over 10,000, or one suitable under any applicable federal, state, or local rules of court for publication required by court order or rules of civil procedure) covering the location of the UST or UST system or facility or property on which the UST or UST system is located. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date that the marketable title or deed has been issued, approved and recorded, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder acted diligently to acquire marketable title or deed and to obtain access to the UST, UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed or to gain access to the UST or UST system, the 12-month period begins to run from December 6, 1995 or from the date on which the holder first acquires either title to or possession of the secured UST or UST system, or facility or property on which the UST or...
UST system is located, whichever is later.

(ii) A holder that outbids, rejects, or fails to act upon an offer of fair consideration for the UST or UST system or the facility or property on which the UST or UST system is located, establishes by such outbidding, rejection, or failure to act, that the ownership indicia in the secured UST or UST system or facility or property on which the UST or UST system is located are not held primarily to protect the security interest, unless the holder is required, in order to avoid liability under federal or state law, to make a higher bid, to obtain a higher offer, or to seek or obtain an offer in a different manner.

(A) Fair consideration, in the case of a holder maintaining indicia of ownership primarily to protect a senior security interest in the UST or UST system or facility or property on which the UST or UST system is located, is the value of the security interest as defined in this section. The value of the security interest includes all debt and costs incurred by the security interest holder, and is calculated as an amount equal to or in excess of the sum of the outstanding principal (or comparable amount in the case of a lease that constitutes a security interest) owed to the holder immediately preceding the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure. In the case of a holder maintaining indicia of ownership primarily to protect a junior security interest, fair consideration is the value of all outstanding higher priority security interests plus the value of the security interest held by the junior holder, each calculated as set forth in this paragraph.

(B) Outbids, rejects, or fails to act upon an offer of fair consideration means that the holder outbids, rejects, or fails to act upon within 90 days of receipt, a written, bona fide, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located received at any time after six months following foreclosure, as defined in §280.210(c). A ‘written, bona fide, firm offer’ means a legally enforceable, commercially reasonable, cash offer solely for the foreclosed UST or UST system or facility or property on which the UST or UST system is located received at any time after six months following foreclosure, as defined in §280.210(c). The six-month period begins to run from December 6, 1995 or from the date that marketable title or deed has been issued, approved and recorded to the holder, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder was acting diligently to acquire marketable title or deed and to obtain access to the UST or UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed and to obtain access to the UST or UST system, UST facility and property on which the UST or UST system is located, the holder shall be estopped from relying on any environmental investigation costs (which could include a site assessment, inspection, and/or audit of the UST or UST system or facility or property on which the UST or UST system is located), and corrective action costs incurred under §§280.51 through 280.67 or any other costs incurred as a result of reasonable efforts to comply with any other applicable federal, state or local law or regulation; less any amounts received by the holder in connection with any partial disposition of the property and any amounts paid by the borrower (if not already applied to the borrower’s obligations) subsequent to the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure.

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§ 280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.

Ownership of an UST or UST system or facility or property on which an UST or UST system is located. A holder is not an "owner" of a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located for purposes of compliance with the UST technical standards as defined in §280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided the person:

(a) Does not participate in the management of the UST or UST system as defined in §280.210; and

(b) Does not engage in petroleum production, refining, and marketing as defined in §280.200(b).

§ 280.230 Operating an underground storage tank or underground storage tank system.

(a) Operating an UST or UST system prior to foreclosure. A holder, prior to foreclosure, as defined in §280.210(c), is not an "operator" of a petroleum UST or UST system for purposes of compliance with the UST technical standards as defined in §280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided that, after December 6, 1995, the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(b) Operating an UST or UST system after foreclosure. The following provisions apply to a holder who, through foreclosure, as defined in §280.210(c), acquires a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located.

(1) A holder is not an "operator" of a petroleum UST or UST system for purposes of compliance with 40 CFR part 280 if there is an operator, other than the holder, who is in control of or has responsibility for the daily operation of the UST or UST system, and who can be held responsible for compliance with applicable requirements of 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

(2) If another operator does not exist, as provided for under paragraph (b)(1) of this section, a holder is not an "operator" of the UST or UST system, for purposes of compliance with the UST technical standards as defined in §280.200(a), the UST corrective action...
requirements under §§280.51 through 280.67, and the UST financial responsibility requirements under §§280.90 through 280.111, provided that the holder:

(i) Empties all of its known USTs and UST systems within 60 calendar days after foreclosure or within 60 calendar days after December 6, 1995, whichever is later, or another reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment; and

(ii) Empties those USTs and UST systems that are discovered after foreclosure within 60 calendar days after discovery or within 60 calendar days after December 6, 1995, whichever is later, or another reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment.

(3) If another operator does not exist, as provided for under paragraph (b)(1) of this section, in addition to satisfying the conditions under paragraph (b)(2) of this section, the holder must either:

(i) Permanently close the UST or UST system in accordance with §§280.71 through 280.74, except §280.72(b); or

(ii) Temporarily close the UST or UST system in accordance with the following applicable provisions of §280.70:

(A) Continue operation and maintenance of corrosion protection in accordance with §280.31;

(B) Report suspected releases to the implementing agency; and

(C) Conduct a site assessment in accordance with §280.72(a) if the UST system is temporarily closed for more than 12 months and the UST system does not meet either the performance standards in §280.20 for new UST systems or the upgrading requirements in §280.21, except that the spill and over-fill equipment requirements do not have to be met. The holder must report any suspected releases to the implementing agency. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date on which the UST system is emptied and secured under paragraph (b)(2) of this section, whichever is later.

(4) The UST system can remain in temporary closure until a subsequent purchaser has acquired marketable title to the UST or UST system or facility or property on which the UST or UST system is located. Once a subsequent purchaser acquires marketable title to the UST or UST system or facility or property on which the UST or UST system is located, the purchaser must decide whether to operate or close the UST or UST system in accordance with applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.
## APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)

### Notification for Underground Storage Tanks

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.D. Number</td>
<td>State or local agency's unique identifier</td>
</tr>
<tr>
<td>STATE USE ONLY</td>
<td>Tank's immediate state of use</td>
</tr>
</tbody>
</table>

#### GENERAL INFORMATION

- **Notification is required by Federal law for all underground storage tanks that have been used to store regulated substances since January 1, 1984, and are in the ground as of May 8, 1986, or that were brought into use after May 8, 1986. The information requested is required by Section 803 of the Resource Conservation and Recovery Act (RCRA), as amended.**
- **The primary purpose of this notification program is to locate and evaluate underground storage tanks that may be storing hazardous substances. It is intended to locate and evaluate underground storage tanks that may be storing hazardous substances, and also to provide a basis for developing a plan to regulate these tanks.**
- **Who Must Notify?** Section 803 of RCRA, as amended, requires that, unless exempted, owners of underground storage tanks that store regulated substances must notify the designated State or local agencies of the existence of their tanks.
- **What Tanks Are Included?** Underground storage tank is defined as any one or combination of tanks that is used to contain an accumulation of ‘‘regulated substances,’’ and (2) whose volume (excluding connected underground pipe or piping) is 10,000 gallons or less. Some examples of underground storage tanks are (i) gasoline, kerosene, diesel, and other fuels; (ii) waste oil; and (iii) petroleum solvents, petroleum derivatives, or lubricants.
- **What Tanks Are Excluded?** Tanks excluded from the ground are not subject to the notification requirements of this section. This includes (a) storage tanks of 1,000 gallons or less capacity used for personal or commercial purposes, and (b) storage tanks of 3,000 gallons or less capacity used for commercial purposes.
- **Who to Notify?** Completed notification forms should be sent to the address given at the top of this page.
- **What to Notify?** A copy of underground storage tank in use that has been taken out of operation after January 1, 1974, but not in the ground, must notify by May 8, 1986. Owners or operators of underground storage tanks in use after May 8, 1986, must notify within 60 days of bringing the tanks into use.

### INSTRUCTIONS

- **Please type or print in ink** all items except “Signature” in Section V. This form must be completed for each location containing underground storage tanks. If more than 10 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.
- **Indicate number of continuation sheets attached.**

#### I. OWNERSHIP OF TANK(S)

- **Owner Name (Corporation, Individual, Public Agency, or Other Entity):**
- **Street Address:**
- **County:**
- **City:**
- **State:**
- **ZIP Code:**
- **Area Code:**
- **Phone Number:**
- **Type of Owner:**
  - Current
  - Former
  - Private or Corporate
  - Federal Gov't
  - Tribal Gov't
  - Other (specify)

#### II. LOCATION OF TANK(S)

- **Facility Name or Company Site Identifier, as applicable:**
- **Street Address or State Road, as applicable:**
- **City:**
- **State:**
- **ZIP Code:**
- **Indicate number of tanks at this location:**
- **Mark box here if tanks are located on land within an Indian reservation or on other Indian trust lands:**

#### III. CONTACT PERSON AT TANK LOCATION

- **Name:**
- **Job Title:**
- **Area Code:**
- **Phone Number:**

#### IV. TYPE OF NOTIFICATION

- **Mark box here only if this is an amended or subsequent notification for this location:**

#### V. CERTIFICATION (Read and sign after completing Section IV.)

- **I certify under penalty of law that I have personally examined and am familiar with the information submitted in this 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.**
- **Name and official title of owner or owner's authorized representative:**
- **Signature:**
- **Date Signed:**

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EPA Form 7350-1 (Revised 9-86)  "APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)"
### V. DESCRIPTION OF UNDERGROUND STORAGE TANKS

<table>
<thead>
<tr>
<th>Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1, 2, 3, ...)</th>
<th>Tank No.</th>
<th>Tank No.</th>
<th>Tank No.</th>
<th>Tank No.</th>
<th>Tank No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Status of Tank (Mark all that apply):</td>
<td>Currently in Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporarily Out of Use</td>
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<td></td>
<td>Permanently Out of Use</td>
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<tr>
<td></td>
<td>Brought into Use after 5/8/86</td>
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<tr>
<td>2. Estimated Age (Years):</td>
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</tr>
<tr>
<td>3. Estimated Total Capacity (Gallons):</td>
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<td></td>
</tr>
<tr>
<td>4. Material of Construction (Mark one):</td>
<td>Steel</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Concrete</td>
<td></td>
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<tr>
<td></td>
<td>Fiberglass Reinforced Plastic</td>
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<td></td>
<td>Other, Please Specify</td>
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<tr>
<td>5. Internal Protection (Mark all that apply):</td>
<td>Cathodic Protection</td>
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<tr>
<td></td>
<td>Interior Lining (e.g., epoxy resin)</td>
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<td></td>
<td>None</td>
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<tr>
<td></td>
<td>Unknown</td>
<td></td>
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<tr>
<td>Other, Please Specify</td>
<td></td>
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<tr>
<td>6. External Protection (Mark all that apply):</td>
<td>Cathodic Protection</td>
<td></td>
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<tr>
<td></td>
<td>Painted (e.g., asphaltic)</td>
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<tr>
<td></td>
<td>Fiberglass Reinforced Plastic Coated</td>
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<td></td>
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<td></td>
<td>None</td>
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<td></td>
<td>Unknown</td>
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<tr>
<td>Other, Please Specify</td>
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<td></td>
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<tr>
<td>7. Piping (Mark all that apply):</td>
<td>Bare Steel</td>
<td></td>
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<tr>
<td></td>
<td>Galvanized Steel</td>
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<td></td>
<td>Fiberglass Reinforced Plastic</td>
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<tr>
<td></td>
<td>Cathodically Protected</td>
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<tr>
<td></td>
<td>Unknown</td>
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<tr>
<td>Other, Please Specify</td>
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<tr>
<td>8. Substance Currently or Last Stored (Mark all that apply):</td>
<td>a. Empty</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>b. Petroleum</td>
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<td></td>
<td></td>
<td>Diesel</td>
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<td></td>
<td></td>
<td>Kerosene</td>
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<tr>
<td></td>
<td>c. Hazardous Substance</td>
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<tr>
<td></td>
<td></td>
<td>Chemical Abstract Service (CAS) No. Mark box if tank stores a mixture of substances</td>
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<tr>
<td>d. Unknown</td>
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<tr>
<td>Other, Please Specify</td>
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</tr>
<tr>
<td>9. Additional Information (for tanks permanently taken out of service):</td>
<td>a. Estimated date last used (mo/yr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Estimated quantity of substance remaining (gallons)</td>
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<tr>
<td></td>
<td>c. Mark box if tank was filled with inert material (e.g., sand, concrete)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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APPENDIX II TO PART 280—LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS

Alabama (EPA Form), Alabama Department of Environmental Management, Ground Water Section/Water Division, 1751 Congresswoman W.L. Dickinson Drive, Montgomery, Alabama 36130, 205-271-7823
Alaska (EPA Form), Department of Environmental Conservation, Box 0, Juneau, Alaska 99811-1800, 907/465-2653
American Samoa (EPA Form), Executive Secretary, Environmental Quality Commission, Office of the Governor, American Samoa Government, Pago Pago, American Samoa 96799; Attention: UST Notification.

Arizona (EPA Form), Attention: UST Coordinator, Arizona Department of Environmental Quality, Environmental Health Services, 2505 N. Central, Phoenix, Arizona 85004.

Arkansas (EPA Form), Arkansas Department of Pollution Control and Ecology, P.O. Box 5683, Little Rock, Arkansas 72219, 501/562-7444.

California (State Form), Executive Director, State Water Resources Control Board, P.O. Box 100, Sacramento, California 95801, 916/445-1383.

Colorado (EPA Form), Section Chief, Colorado Department of Health, Waste Management Division, Underground Tank Program, 2210 East 11th Avenue, Denver, Colorado 80220, 303/292-8333.

Connecticut (State Form), Hazardous Materials Management Unit, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06106.

Delaware (State Form), Division of Air and Waste Management, Department of Natural Resources and Environmental Control, P.O. Box 1401, 89 Kings Highway, Dover, Delaware 19903, 302/736-2409.

District of Columbia (EPA Form), Attention: UST Notification Form, Department of Consumer and Regulatory Affairs, Pesticides and Hazardous Waste Management Branch, Room 114, 5010 Overlook Avenue SW., Washington, DC 20032.

Florida (State Form), Florida Department of Environmental Regulation, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399, 904/387-4398.

Georgia (EPA Form), Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Program, 1220 Norman Berry Drive, 7th Floor, Hapeville, Georgia 30354, 404/566-7401.

Guam (State Form), Administrator, Guam Environmental Protection Agency, P.O. Box 2999, Agana, Guam 96910, Overseas Operator (Commercial call 698-8963).

Hawaii (EPA Form), Administrator, Hazardous Waste Program, 645 Halekauwila Street, Honolulu, Hawaii 96813, 808/584-2270.

Idaho (EPA Form), Underground Storage Tank Coordinator, Water Quality Bureau, Division of Environmental Quality, Idaho Department of Health and Welfare, 450 W. State Street, Boise, Idaho 83720, 208/342-4251.

Illinois (EPA Form), Underground Storage Tank Coordinator, Division of Environmental Quality, 450 W. State Street, Springfield, Illinois 62702, 217/782-3471.

Indiana (EPA Form), Underground Storage Tank Program, Office of Environmental Response, Indiana Department of Environmental Management, 105 South Meridian Street, Indianapolis, Indiana 46225.

Iowa (State Form), UST Coordinator, Iowa Department of Natural Resources, Henry A. Wallace Building, 900 East Grand, Des Moines, Iowa 50219, 512/281-8135.

Kansas (EPA Form), Kansas Department of Health and Environment, Forbes Field, Building 740, Topeka, Kansas 66620, 913/296-1584.

Kentucky (State Form), Division of Environmental Protection, Hazardous Waste Branch, Fort Boone Plaza, Building #2, 18 Reily Road, Frankfort, Kentucky 40601, 502/564-6715.

Louisiana (State Form), Assistant Secretary, Louisiana Department of Environmental Quality, P.O. Box 4466, Baton Rouge, Louisiana 70804, 504/342-1365.

Maine (State Form), Division of Oil and Hazardous Materials Management, Department of Environmental Protection, State House—Station 17, Augusta, Maine 04333.

Maryland (EPA Form), Science and Health Advisory Group, Office of Environmental Programs, 201 West Preston Street, Baltimore, Maryland 21201.

Massachusetts (EPA Form), UST Registry, Department of Public Safety, 1010 Commonwealth Avenue, Boston, Massachusetts 02215, 617/566-4500.

Michigan (EPA Form), Michigan Department of State Police, Fire Marshal Division, General Office Building, 7100 Harris Drive, Lansing, Michigan 48913.

Minnesota (State Form), Underground Storage Tank Program, Bureau of Oil and Hazardous Waste Management, General Office Building, 7150 Harris Drive, Lansing, Michigan 48913.

Mississippi (State Form), Department of Natural Resources, Bureau of Pollution Control, Underground Storage Tank Section, P.O. Box 10385, Jackson, Mississippi 39299, 601/961-5171.

Missouri (EPA Form), UST Coordinator, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102, 314/751-7428.

Montana (EPA Form), Solid and Hazardous Waste Bureau, Department of Health and Environmental Quality, Cogswell Bldg., Room B-203, Helena, Montana 59620.

Nebraska (EPA Form), Nebraska State Fire Marshal, P.O. Box 94677, Lincoln, Nebraska 68509-4677, 402/471-9465.

Nevada (EPA Form), Attention: UST Coordinator, Division of Environmental Protection, Department of Conservation and Natural Resources, Capitol Complex 201 S. Fall Street, Carson City, Nevada 89710, 702/385-4970.

Environmental Protection Agency

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APPENDIX III TO PART 280—STATEMENT FOR SHIPPING TICKETS AND INVOICES

NOTE. A Federal law (the Resource Conservation and Recovery Act (RCRA), as amended (Pub. L. 96–110)) requires owners of certain underground storage tanks to notify designated State or local agencies by May 8, 1986, of the existence of their tanks. Notifications for tanks brought into use after May 8, 1986, must be made within 30 days. Consult EPA’s regulations, issued on November 8, 1985 (40 CFR part 280) to determine if you are affected by this law.
Subpart A—Purpose, General Requirements and Scope

§ 281.10 Purpose.
(a) This subpart specifies the requirements that state programs must meet for approval by the Administrator under section 9004 of RCRA, and the procedures EPA will follow in approving, revising and withdrawing approval of state programs.
(b) State submissions for program approval must be in accordance with the procedures set out in this part.
(c) A state may apply for approval under this subpart at any time after the promulgation of release detection, prevention, and correction regulations under section 9003 of RCRA.
(d) Any state program approved by the Administrator under this part shall at all times be conducted in accordance with the requirements of this part.

§ 281.11 General requirements.
(a) State program elements. The following substantive elements of a state program must be addressed in a state application for approval:
(1) Requirements for all existing and new underground storage tanks:
   (i) New UST systems (design, construction, installation, and notification);
   (ii) Upgrading of existing UST systems;
   (iii) General operating requirements;
   (iv) Release detection;
   (v) Release reporting, investigation, and confirmation;
   (vi) Out-of-service USTs and closure;
   (vii) Release response and corrective action; and
   (viii) Financial responsibility for UST systems containing petroleum.

(b) Final approval. The state must demonstrate that its requirements under each state program element for existing and new UST systems are no
§ 281.12 Scope and definitions.

(a) Scope. (1) The Administrator may approve either partial or complete state programs. A “partial” state program regulates either solely UST systems containing petroleum or solely UST systems containing hazardous substances. If a “partial” state program is approved, EPA will administer the remaining part of the program. A “complete” state program regulates both petroleum and hazardous substance tanks.

(2) EPA will administer the UST program on Indian lands, except where Congress has clearly expressed an intention to grant a state authority to regulate petroleum and hazardous substance USTs on Indian lands. In either case, this decision will not impair a state’s ability to obtain program approval for petroleum and/or hazardous substances on non-Indian lands in accordance with this part.

(3) Nothing in this subpart precludes a state from:
   (i) Adopting or enforcing requirements that are more stringent or more extensive than those required under this part; or
   (ii) Operating a program with a greater scope of coverage than that required under this part. Where an approved state program has a greater
Environmental Protection Agency

§ 281.23

scope of coverage than required by federal law, the additional coverage is not part of the federally-approved program.

(b) Definitions. (1) The definitions in part 280 apply to all subparts of this part.

(2) For the purpose of this part, the term interim approval means the approval received by a state program that meets the requirements in §281.11(c)(1) and (2) for the time period defined in §281.11(c)(3).

(3) For the purposes of this part the term final approval means the approval received by a state program that meets the requirements in §281.11(b).

Subpart B—Components of a Program Application

§ 281.20 Program application.

Any state that seeks to administer a program under this part must submit an application containing the following parts:

(a) A transmittal letter from the Governor of the state requesting program approval;

(b) A description in accordance with §281.21 of the state program and operating procedures;

(c) A demonstration of the state’s procedures to ensure adequate enforcement;

(d) A schedule for obtaining needed authorities under interim approval, where applicable;

(e) A Memorandum of Agreement outlining roles and responsibilities of EPA and the implementing agency;

(f) An Attorney General’s statement in accordance with §281.25 certifying to applicable state authorities; and

(g) Copies of all applicable state statutes and regulations.

NOTE: EPA has designed an optional application form that is available for use by state applicants.

§ 281.21 Description of state program.

A state seeking to administer a program under this part must submit a description of the program it proposes to administer under state law in lieu of the federal program. The description of a state’s existing or planned program must include:

(a) The scope of the state program:

(1) Whether the state program regulates UST systems containing petroleum or hazardous substances, or both;

(2) Whether the state is applying for interim or final approval;

(3) Whether the state program is more stringent or broader in scope than the federal program, and in what ways; and

(4) Whether the state has any existing authority over Indian lands or has agreements with Indian tribes relevant to the regulation of underground storage tanks.

(b) The organization and structure of the state and local agencies with responsibility for administering the program. The jurisdiction and responsibilities of all state and local implementing agencies must be delineated, appropriate procedures for coordination set forth, and one state agency designated as a “lead agency” to facilitate communications between EPA and the state.

(c) Staff resources to carry out and enforce the required state program elements, both existing and planned, including the number of employees, agency where employees are located, general duties of the employees, and current limits or restrictions on hiring or utilization of staff.

(d) An existing state funding mechanism to meet the estimated costs of administering and enforcing the required state program elements, and any restrictions or limitations upon this funding.

§ 281.22 Procedures for adequate enforcement.

A state must submit a description of its compliance monitoring and enforcement procedures, including related state administrative or judicial review procedures.

§ 281.23 Schedule for interim approval.

For a state program that must modify its statutory or regulatory requirements for release detection, release reporting and investigation, and out-of-service or closed UST systems in order to be no less stringent than the federal requirements, the plan must include a schedule for making such changes and for submitting an amendment to the
§ 281.24 Memorandum of agreement.

EPA and the approved state will negotiate a Memorandum of Agreement (MOA) containing proposed areas of coordination and shared responsibilities between the state and EPA and separate EPA and state roles and responsibilities in areas including, but not limited to: Implementation of partial state programs; enforcement; compliance monitoring; EPA oversight; and sharing and reporting of information. At the time of approval, the MOA must be signed by the Regional Administrator and the appropriate official of the state lead agency.

§ 281.25 Attorney General’s statement.

(a) A state must submit a written demonstration from the Attorney General that the laws and regulations of the state provide adequate authority to carry out the program described under § 281.21 and to meet other requirements of this part. This statement may be signed by independent legal counsel for the state rather than the Attorney General, provided that such counsel has full authority to independently represent the state Agency in court on all matters pertaining to the state program. This statement must include citations to the specific statutes, administrative regulations, and where appropriate, judicial decisions that demonstrate adequate authority to regulate and enforce requirements for UST systems. State statutes and regulations cited by the state Attorney General must be fully effective when the program is approved.

(b) If a state currently has authority over underground storage tank activities on Indian Lands, the statement must contain an appropriate analysis of the state’s authority.

Subpart C—Criteria for No-Less-Stingent

§ 281.30 New UST system design, construction, installation, and notification.

In order to be considered no less stringent than the corresponding federal requirements for new UST system design, construction, installation, and notification, the state must have requirements that ensure all new underground storage tanks, and the attached piping in contact with the ground and used to convey the regulated substance stored in the tank, conform to the following:

(a) Be designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion.

Note: Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate that the state program requirements are no less stringent in this area.

(b) Be provided with equipment to prevent spills and tank overfills when new tanks are installed or existing tanks are upgraded, unless the tank does not receive more than 25 gallons at one time.

(c) All UST system owners and operators must notify the implementing state agency of the existence of any new UST system using a form designated by the state agency.

§ 281.31 Upgrading existing UST systems.

In order to be considered no less stringent than the corresponding federal upgrading requirements, the state must have requirements that ensure existing UST systems will be replaced or upgraded before December 22, 1998, to prevent releases for their operating life due to corrosion, and spills or overfills.

§ 281.32 General operating requirements.

In order to be considered no less stringent than the corresponding federal general operating requirements, the state must have requirements that ensure all new and existing UST systems conform to the following:

(a) Prevent spills and overfills by ensuring that the space in the tank is sufficient to receive the volume to be transferred and that the transfer operation is monitored constantly;

(b) Where equipped with cathodic protection, be operated and maintained by a person with sufficient training
and experience in preventing corrosion, and in a manner that ensures that no releases occur during the operating life of the UST system;

NOTE: Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate the state program requirements are no less stringent.

c) Be made of or lined with materials that are compatible with the substance stored;

d) At the time of upgrade or repair, be structurally sound and upgraded or repaired in a manner that will prevent releases due to structural failure or corrosion during their operating lives;

e) Have records of monitoring, testing, repairs, and closure maintained that are sufficient to demonstrate recent facility compliance status, except that records demonstrating compliance with repair and upgrading requirements must be maintained for the remaining operating life of the facility. These records must be made readily available when requested by the implementing agency.

§ 281.33 Release detection.

In order to be considered no less stringent than the corresponding federal requirements for release detection, the state must have requirements that at a minimum ensure all UST systems are provided with release detection that conforms to the following:

(a) General methods. Release detection requirements for owners and operators must consist of a method, or combination of methods, that is:

(1) Capable of detecting a release of the regulated substance from any portion of the UST system that routinely contains regulated substances—as effectively as any of the methods allowed under the federal technical standards—for as long as the UST system is in operation. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the speed and reliability with which the release can be detected.

(2) Designed, installed, calibrated, operated and maintained so that releases will be detected in accordance with the capabilities of the method.

(b) Phase-in of requirements. Release detection requirements must, at a minimum, be scheduled to be applied at all UST systems:

(1) Immediately when a new UST system is installed:

(2) On an orderly schedule that completes a phase-in of release detection at all existing UST systems (or their closure) before December 21, 1993, except that release detection for the piping attached to any existing UST that conveys a regulated substance under greater than atmospheric pressure must be phased-in before December 22, 1990.

c) Requirements for petroleum tanks. All petroleum tanks must be sampled, tested, or checked for releases at least monthly, except that:

(1) New or upgraded tanks (that is, tanks and piping protected from releases due to corrosion and equipped with both spill and overfill prevention devices) may temporarily use monthly inventory control (or its equivalent) in combination with tightness testing (or its equivalent) conducted every 5 years for the first 10 years after the tank is installed or upgraded or until December 22, 1998, whichever is later; and

(2) Existing tanks unprotected from releases due to corrosion or without spill and overfill prevention devices may use monthly inventory control (or its equivalent) in combination with annual tightness testing (or its equivalent) until December 22, 1998.

d) Requirements for petroleum piping. All underground piping attached to the tank that routinely conveys petroleum must conform to the following:

(1) If the petroleum is conveyed under greater than atmospheric pressure:

(i) The piping must be equipped with release detection that detects a release within an hour by restricting or shutting off flow or sounding an alarm; and

(ii) The piping must have monthly monitoring applied or annual tightness tests conducted.

(2) If suction lines are used:

(i) Tightness tests must be conducted at least once every 3 years, unless a monthly method of detection is applied to this piping; or

(ii) The piping is designed to allow the contents of the pipe to drain back into the storage tank if the suction is released and is also designed to allow
§281.34  Release reporting, investigation, and confirmation.

In order to be considered no less stringent than the corresponding federal requirements for release reporting, investigation, and confirmation, the state must have requirements that ensure all owners and operators conform with the following:

(a) Promptly investigate all suspected releases, including:

(1) When unusual operating conditions, release detection signals and environmental conditions at the site suggest a release of regulated substances may have occurred; and

(2) When required by the implementing agency to determine the source of a release having an impact in the surrounding area; and

(b) Promptly report all confirmed underground releases and any spills and overfills that are not contained and cleaned up.

(c) Ensure that all owners and operators contain and clean up unreported spills and overfills in a manner that will protect human health and the environment.

§281.35  Release response and corrective action.

In order to be considered no less stringent than the corresponding federal requirements for release response and corrective action, the state must have requirements that ensure:

(a) All releases from UST systems are promptly assessed and further releases are stopped;

(b) Actions are taken to identify, contain and mitigate any immediate health and safety threats that are posed by a release (such activities include investigation and initiation of free product removal, if present);

(c) All releases from UST systems are investigated to determine if there are impacts on soil and ground water, and any nearby surface waters. The extent of soil and ground water contamination must be delineated when a potential threat to human health and the environment exists.

(d) All releases from UST systems are cleaned up through soil and ground water remediation and any other steps, as necessary to protect human health and the environment;

(e) Adequate information is made available to the state to demonstrate that corrective actions are taken in accordance with the requirements of paragraphs (a) through (d) of this section. This information must be submitted in a timely manner that demonstrates its technical adequacy to protect human health and the environment; and

(f) In accordance with §280.67, the state must notify the affected public of all confirmed releases requiring a plan for soil and ground water remediation, and upon request provide or make available information to inform the interested public of the nature of the release and the corrective measures planned or taken.

§281.36  Out-of-service UST systems and closure.

In order to be considered no less stringent than the corresponding federal requirements for temporarily closed UST systems and permanent...
closure, the state must have requirements that ensure UST systems conform with the following:

(a) Removal from service. All new and existing UST systems temporarily closed must:
   (1) Continue to comply with general operating requirements, release reporting and investigation, and release response and corrective action;
   (2) Continue to comply with release detection requirements if regulated substances are stored in the tank;
   (3) Be closed off to outside access; and
   (4) Be permanently closed if the UST system has not been protected from corrosion and has not been used in one year, unless the state approves an extension after the owner and operator conducts a site assessment.

(b) Permanent closure of UST systems. All tanks and piping must be cleaned and permanently closed in a manner that eliminates the potential for safety hazards and any future releases. The owner or operator must notify the state of permanent UST system closures. The site must also be assessed to determine if there are any present or were past releases, and if so, release response and corrective action requirements must be complied with.

(c) All UST systems taken out of service before the effective date of the federal regulations must permanently close in accordance with paragraph (b) of this section when directed by the implementing agency.

§ 281.37 Financial responsibility for UST systems containing petroleum.

(a) In order to be considered no less stringent than the federal requirements for financial responsibility for UST systems containing petroleum, the state requirements for financial responsibility for petroleum UST systems must ensure that:
   (1) Owners and operators have $1 million per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;
   (2) Owners and operators not engaged in petroleum production, refining, and marketing and who handle a throughput of 10,000 gallons of petroleum per month or less have $500,000 per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;
   (3) Owners and operators of 1 to 100 petroleum USTs must have an annual aggregate of $1 million; and
   (4) Owners and operators of 101 or more petroleum USTs must have an annual aggregate of $2 million.

(b) Phase-in of requirements. Financial responsibility requirements for petroleum UST systems must, at a minimum, be scheduled to be applied at all UST systems on an orderly schedule that completes a phase-in of the financial responsibility requirements within the time allowed in the Federal regulations under 40 CFR 286.91.

(c) States may allow the use of a wide variety of financial assurance mechanisms to meet this requirement. Each financial mechanism must meet the following criteria in order to be no less stringent than the federal requirements. The mechanism must:
   (1) Be valid and enforceable; be issued by a provider that is qualified or licensed in the state; not permit cancellation without allowing the state to draw funds; ensure that funds will only and directly be used for corrective action and third party liability costs; and require that the provider notify the owner or operator of any circumstances that would impair or suspend coverage.

(d) States must require owners and operators to maintain records that demonstrate compliance with the state financial responsibility requirements, and these records must be made readily available when requested by the implementing agency.


§ 281.38 Financial responsibility for USTs containing hazardous substances. [Reserved]

§ 281.39 Lender liability.

(a) A state program that contains a security interest exemption will be considered to be no less stringent than, and as broad in scope as, the federal program provided that the state’s exemption:
§ 281.40 Requirements for compliance monitoring program and authority.

(a) Any authorized representative of the state engaged in compliance inspections, monitoring, and testing must have authority to obtain by request any information from an owner or operator with respect to the UST system(s) that is necessary to determine compliance with the regulations.

(b) Any authorized representative of the state must have authority to require an owner or operator to conduct monitoring or testing.

(c) Authorized representatives must have the authority to enter any site or premises subject to UST system regulations or in which records relevant to the operation of the UST system(s) are kept, and to copy these records, obtain samples of regulated substances, and inspect or conduct the monitoring or testing of UST system(s).

(d) State programs must have procedures for receipt, evaluation, retention and investigation of records and reports required of owners or operators and must provide for enforcement of failure to submit these records and reports. States that choose to receive electronic documents must include the requirements of 40 CFR Part 3—(Electronic reporting) in their state program.

(e)(1) State programs must have inspection procedures to determine, independent of information supplied by regulated persons, compliance with program requirements, and must provide for enforcement of failure to comply with the program requirements. States must maintain a program for systematic inspections of facilities subject to regulations in a manner designed to determine compliance or non-compliance, to verify accuracy of information submitted by owners or operators of regulated USTs, and to verify adequacy of methods used by owners or operators in developing the information.

(2) When inspections are conducted, samples taken, or other information gathered, these procedures must be conducted in a manner (for example, using proper chain of custody procedures) that will produce evidence admissible in an enforcement proceeding, or in court.

(f) Public effort in reporting violations must be encouraged and the state enforcement agency(ies) must make available information on reporting procedures. State programs must maintain a program for investigating information obtained from the public about suspected violations of UST program requirements.

(g) The state program must maintain the data collected through inspections and evaluation of records in such a manner that the implementing agency can monitor over time the compliance status of the regulated community. Any compilation, index, or inventory of such facilities and activities shall be made available to EPA upon request.

§ 281.41 Requirements for enforcement authority.

(a) Any state agency administering a program must have the authority to implement the following remedies for violations of state program requirements:

(1) To restrain immediately and effectively any person by order or by suit in state court from engaging in any unauthorized activity that is endangering or causing damage to public health or the environment;

(2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement;

(3) To assess or sue to recover in court civil penalties as follows:
   (i) Civil penalties for failure to notify or for submitting false information pursuant to tank notification requirements must be capable of being assessed up to $5,000 or more per violation.
   (ii) Civil penalties for failure to comply with any state requirements or standards for existing or new tank systems must be capable of being assessed up to $5,000 or more for each tank for each day of violation. If the violation is continuous, civil penalties shall be capable of being assessed up to $5,000 or more for each day of violation.

(b) The burden of proof and degree of knowledge or intent required under state law for establishing violations under paragraph (a)(3) of this section, must be no greater than the burden of proof or degree of knowledge or intent that EPA must provide when it brings an action under Subtitle I of the Resource Conservation and Recovery Act.

(c) A civil penalty assessed, sought, or agreed upon by the state enforcement agency(ies) under paragraph (a)(3) of this section must be appropriate to the violation.

§ 281.42 Requirements for public participation.

Any state administering a program must provide for public participation in the state enforcement process by providing any one of the following three options:

(a) Authority that allows intervention analogous to Federal Rule 24(a)(2), and assurance by the appropriate state enforcement agency that it will not oppose intervention under the state analogue to Rule 24(a)(2) on the ground that the applicant’s interest is adequately represented by the State.

(b) Authority that allows intervention as of right in any civil action to obtain the remedies specified in § 281.41 by any citizen having an interest that is or may be adversely affected; or

(c) Assurance by the appropriate state agency that:
   (1) It will provide notice and opportunity for public comment on all proposed settlements of civil enforcement actions (except where immediate action is necessary to adequately protect human health and the environment);
   (2) It will investigate and provide responses to citizen complaints about violations; and
   (3) It will not oppose citizen intervention when permissive intervention is allowed by statute, rule, or regulation.

§ 281.43 Sharing of information.

(a) States with approved programs must furnish EPA, upon request, any information in state files obtained or used in the administration of the state program. This information includes:

(1) Any information submitted to the state under a claim of confidentiality. The state must submit that claim to EPA when providing such information.

(b) EPA must furnish to states with approved programs, upon request, any information in EPA files that the state needs to administer its approved state program. Such information includes:

(1) Any information that is submitted to EPA without a claim of confidentiality; and

(2) Any information submitted to EPA under a claim of confidentiality, subject to the conditions in 40 CFR part 2.
§ 281.50 Approval procedures for state programs.

(a) The following procedures are required for all applications, regardless of whether the application is for a partial or complete program, as defined in §281.12, or for interim or final approval in accordance with §281.11.

(b) Before submitting an application to EPA for approval of a state program, the state must provide an opportunity for public notice and comment in the development of its underground storage tank program.

(c) When EPA receives a state program application, EPA will examine the application and notify the state whether its application is complete, in accordance with the application components required in §281.20. The 180-day statutory review period begins only after EPA has determined that a complete application has been received.

(d) The state and EPA may by mutual agreement extend the review period.

(e) After receipt of a complete program application, the Administrator will tentatively determine approval or disapproval of the state program. EPA shall issue public notice of the tentative determination in the FEDERAL REGISTER; in enough of the largest newspapers in the state to attract statewide attention; and to persons on the state agency mailing list and any other persons who the agency has reason to believe are interested. Notice of the tentative determination must also:

(1) Afford the public 30 days after the notice to comment on the state’s application and the Administrator’s tentative determination; and

(2) Include a general statement of the areas of concern, if the Administrator indicates the state program may not be approved; and

(3) Note the availability for inspection by the public of the state program application; and

(4) Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination unless insufficient public interest is expressed, at which time the Regional Administrator may cancel the public hearing.

(f) Within 180 days of receipt of a complete state program application, the Administrator must make a final determination whether to approve the state program after review of all public comments. EPA will give notice of its determination in the FEDERAL REGISTER and codify the approved state program. The notice must include a statement of the reasons for this determination and a response to significant comments received.

§ 281.51 Amendment required at end of interim period.

(a) State programs that meet the requirements of section 281.11(c) (1) and (2) may be approved for 1 to 3 years from September 23, 1988. States that receive such interim approval must adopt requirements that are no less stringent than the corresponding federal requirements and standards within the timeframes specified under §281.11(c)(3).

(b) By the end of the specified time period, a state with interim approval must submit to EPA an amendment to its application that includes all modified and new requirements for any of the elements containing less stringent requirements. Such amended applications must also include a modified program description, an Attorney General’s statement and a Memorandum of Agreement that incorporate the amended program requirements, and copies of all applicable state statutes and regulations.

(c) Upon receipt of the application amendment, the Administrator shall follow the same review and approval procedures as required in §281.50.

(d) If a state fails to submit an amendment within the specified timeframe, the interim approval of the state program expires upon the applicable date established under §281.11(c), and the Subtitle I program automatically reverts to EPA.

(e) If a state submits an amendment to the program application within the timeframe specified under §281.11(c)(3) and the amendment is disapproved after the end of the time period, the interim approval of the state program expires immediately upon disapproval and the Subtitle I program automatically reverts to EPA.
(f) If interim approval of the state program expires, EPA must notify the regulated community and the public of the re-establishment of the federal program through a notice in the Federal Register.

§ 281.52 Revision of approved state programs.

(a) Either EPA or the approved state may initiate program revision. Program revision may be necessary when the controlling federal or state statutory or regulatory authority is changed or when responsibility for the state program is shifted to a new agency or agencies. The state must inform EPA of any proposed modifications to its basic statutory or regulatory authority or change in division of responsibility among state agencies. EPA will determine in each case whether a revision of the approved program is required.

(b) Whenever the Administrator has reason to believe that circumstances have changed with respect to an approved state program or the federal program, the Administrator may request, and the state must provide, a revised application as prescribed by EPA.

(c) The Administrator will approve or disapprove program revisions based on the requirements of this part and of subtitle I pursuant to the procedures under this section, or under section 281.50 if EPA has reason to believe the proposed revision will receive significant negative comment from the public.

(1) The Administrator must issue public notice of planned approval or disapproval of a state program revision in the Federal Register; in enough of the largest newspapers in the state to attract statewide attention; and by mailing to persons on the state agency mailing list and to any other persons who the agency has reason to believe are interested. The public notice must summarize the state program revision, indicate whether EPA intends to approve or disapprove the revision, and provide for an opportunity to comment for a period of 30 days.

(2) The Administrator's decision on the proposed revision becomes effective 60 days after the date of publication in the Federal Register in accordance with paragraph (c)(1) of this section, unless significant negative comment opposing the proposed revision is received during the comment period. If significant negative comment is received, EPA must notify the state and within 60 days after the date of publication, publish in the Federal Register either:

(i) A withdrawal of the immediate final decision, which will then be treated as a tentative decision in accordance with the applicable procedures of §281.50 (e) and (f); or

(ii) A notice that contains a response to significant negative comments and affirms either that the immediate final decision takes effect or reverses the decision.

(d) Revised state programs that receive approval must be codified in the Federal Register.

Subpart F—Withdrawal of Approval of State Programs

§ 281.60 Criteria for withdrawal of approval of state programs.

(a) The Administrator may withdraw program approval when the Agency determines that a state no longer has adequate regulatory or statutory authority or is not administering and enforcing an approved program in accordance with this part. The state must have adequate capability to administer and enforce the state program. In evaluating whether such capability exists, the Agency will consider whether the state is implementing an adequate enforcement program by evaluating the quality of compliance monitoring and enforcement actions.

(b) Such withdrawal of approval will occur only after the state fails to take appropriate action within a reasonable time, not to exceed 120 days after notice from the Administrator that the state is not administering and enforcing its program in accordance with the requirements of this part.

§ 281.61 Procedures for withdrawal of approval of state programs.

(a) The following procedures apply when a state with an approved program voluntarily transfers to EPA those program responsibilities required by federal law.
(1) The state must give EPA notice of the proposed transfer, and submit, at least 90 days before the transfer, a plan for the orderly transfer of all relevant program information necessary for EPA to administer the program.

(2) Within 30 days of receiving the state’s transfer plan, EPA must evaluate the plan and identify any additional information needed by the federal government for program administration.

(3) At least 30 days before the transfer is to occur, EPA must publish notice of the transfer in the FEDERAL REGISTER, in enough of the largest newspapers in the state to attract statewide attention; and to persons on appropriate state mailing lists.

(b) When EPA begins proceedings to determine whether to withdraw approval of a state program (either on its own initiative or in response to a petition from an interested person), withdrawal proceedings must be conducted in accordance with procedures set out in 40 CFR 271.23 (b) and (c), except for §271.23(b)(8)(iii) to the extent that it deviates from requirements under §281.60.

PART 282—APPROVED UNDERGROUND STORAGE TANK PROGRAMS

Subpart A—General Provisions

Sec. 282.1 Purpose and scope.

This part sets forth the applicable state underground storage tank programs under section 9004 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6991c and 40 CFR part 281. “State” is defined in 42 U.S.C.
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1004(31) as “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.”

§ 282.2 Incorporation by reference.

(a) Material listed as incorporated by reference in part 282 was approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Material is incorporated as it exists on the date of the approval, and notice of any change in the material will be published in the Federal Register.

(b) Copies of materials incorporated by reference may be inspected at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of materials incorporated by reference may be obtained or inspected at the EPA UST Docket, located at 1235 Jefferson Davis Highway, First Floor, Arlington, VA 22202 (telephone number: 703–603–9231), or send mail to Mail Code 5305G, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and at the library of the appropriate Regional Office listed below:

(1) Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont): 5 Post Office Square—Suite 100, Boston, MA 02109–3912.


(4) Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee): 345 Courtland St., NE, Atlanta, GA 30365.

(5) Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin): 77 West Jackson Boulevard, Chicago, IL 60604.

(6) Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas): 1445 Ross Avenue, Dallas, TX 75202–2733.

(7) Region 7 (Iowa, Kansas, Missouri, Nebraska): 726 Minnesota Avenue, Kansas City, KS 66101.

(8) Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming): 999 18th Street, Denver, CO 80202–2405.

(9) Region 9 (Arizona, California, Hawaii, Nevada, Guam, American Samoa, Commonwealth of the Northern Mariana Islands): 75 Hawthorne Street, San Francisco, CA 94105.


(c) For an informational listing of the state and local requirements incorporated in part 282, see appendix A to this part.


§§ 282.3–282.49 [Reserved]

Subpart B—Approved State Programs

§ 282.50 Alabama State-Administered Program.

(a) The State of Alabama is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Alabama Department of Environmental Management, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA published the notice for final determination on the approved Alabama underground storage tank program concurrently with this notice and it will be effective on March 25, 1997.

(b) Alabama has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.
(c) To retain program approval, Alabama must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Alabama obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Alabama will have final approval for the following elements submitted to EPA in Alabama’s program application for final approval and to be published in the Federal Register concurrently with this notice, and to be effective on March 25, 1997. Copies of Alabama’s underground storage tank program may be obtained from the Ground Water Branch, Alabama Department of Environmental Management, 1751 W.L. Dickinson Drive, Montgomery, Alabama 36130.

1. State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Alabama Statutory Requirements Applicable to the Underground Storage Tank Program, 1996.

(B) Alabama Regulatory Requirements Applicable to the Underground Storage Tank Program, 1996.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: Code of Alabama 1975, Title 22, Chapter 36, Section 9 and Code of Alabama 1975, Title 22, Chapter 22A, Section 5(19).

(B) The regulatory provisions include: none.

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Code of Alabama 1975, Title 22, Chapter 36, Section 5, insofar as it refers to underground storage tank regulation fees.

(B) Code of Alabama 1975, Title 22, Chapter 36, Section 7, insofar as it refers to rules and regulations to establish and protect wellhead areas from contaminants.

(C) Alabama Department of Environmental Management Administrative Code Section 335–6–15–.05, insofar as it requires notification of underground storage tank systems taken out of operation on or before January 1, 1974.

(D) Alabama Department of Environmental Management Administrative Code Section 335–6–15–.45, insofar as it requires underground storage tank regulation fees.

(E) Alabama Department of Environmental Management Administrative Code R. 335–6–15–.47, insofar as it refers to financial responsibility for hazardous substance underground storage tank systems.

2. Statement of legal authority. (i) “Attorney General’s Statement for Final Approval,” signed by the Attorney General of Alabama on June 8, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Alabama to EPA, June 8, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

3. Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the final application in July 1994 and revised in March 1995, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

4. Program description. The program description and any other material submitted as part of the final application in July 1994 and revised in March 1995, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.
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Arkansas State-Administered Program.

(a) The State of Arkansas is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Arkansas Department of Pollution Control and Ecology, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Arkansas program on February 14, 1995 and it was effective on April 25, 1995.

(b) Arkansas has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Arkansas must revise its approved program to adopt new changes to the federal Subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Arkansas obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Arkansas has final approval for the following elements submitted to EPA in Arkansas’ program application for final approval and approved by EPA on February 14, 1995. Copies may be obtained from the Underground Storage Tank Program, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, Little Rock, AR 72219-8913.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Arkansas Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(1) Arkansas Code Annotated, Title 8, Chapter 1, Subchapter 1—General Provisions:

(i) § 8–1–107 Inspections—Definitions—Investigations—Inspection Warrant—Exceptions—Penalties

(ii) § 8–4–103 Criminal, Civil, and Administrative Penalties

(iii) § 8–7–802 Department and commission—powers and duties

(iv) § 8–7–806 Penalties

(B) The regulatory provisions include:

(i) § 8–7–802 Department and commission—powers and duties

(ii) § 8–7–806 Penalties

(iii) § 8–7–809 Corrective actions—Orders of director

(B) The regulatory provisions include:

(1) Arkansas Department of Pollution Control and Ecology Regulation Number 12—Storage Tank Regulation:

(i) Chapter 2, Section 4: Access to Records

(ii) Chapter 2, Section 5: Entry and Inspection of Underground Storage Tank Facilities

(iii) Chapter 8, Section 1: Violations

(iv) Chapter 8, Section 2: Penalty Policy and Administrative Procedures

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not
incorporated by reference herein for enforcement purposes.

(A) Statutes.

(1) Arkansas Code Annotated, Title 8, Chapter 7, Subchapter 8—Regulated Substance Storage Tanks.

(i) § 8–7–802 Department’s Powers and Duties (Insofar as it applies to aboveground storage tanks.)

(ii) § 8–7–805 License Requirement (Insofar as it applies to individuals other than UST owners and operators.)

(2) Arkansas Code Annotated, Title 8, Chapter 7, Subchapter 9—Petroleum Storage Tank Trust Fund Act.

(i) § 8–7–903 Rules and Regulations—Powers of department (Insofar as it addresses aboveground storage tanks.)

(ii) Reserved.

(B) Regulations.

(1) Arkansas Department of Pollution Control and Ecology Regulation Number 12—Storage Tank Regulation.

(i) Chapter 2, Section 6: Entry and Inspection of Aboveground Storage Tank Facilities (Insofar as it applies to aboveground storage tanks.)

(ii) Chapter 3, Section 1: Underground and Aboveground Storage Tank Registration Fees (Insofar as it applies to aboveground storage tanks.)

(iii) Chapter 5: Licensing of Tank Installers and Service Personnel (Insofar as it applies to individuals other than UST system owners and operators.)

Section 1: Purpose
Section 2: Definitions
Section 3: Applicability
Section 4: General Requirements
Section 5: Contractor Licensing
Section 6: Individual Licensing
Section 7: Experience Requirements
Section 8: Approval of Comparable Licensing Programs
Section 9: Reciprocity
Section 10: Denial of Licenses
Section 11: Renewal of Licenses
Section 12: Duties and Obligations
Section 13: Department Approval of Training and Continuing Education
Section 14: Complaints
Section 15: Investigation; Enforcement; Penalties
Section 16: Department Actions Against Licenses

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of Arkansas on September 21, 1994, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Arkansas to EPA, September 21, 1994, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on September 26, 1994, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application on September 26, 1994, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the Arkansas Department of Pollution Control and Ecology, signed by the EPA Regional Administrator on February 14, 1995,
Environmental Protection Agency § 282.56

though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[61 FR 1214, Jan. 18, 1996]

§§ 282.54–282.55 [Reserved]

§ 282.56 Connecticut State-Administered Program.

(a) The State of Connecticut is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Connecticut Department of Environmental Protection, was approved by EPA pursuant to 42 U.S.C. 6991c and 40 CFR part 281. EPA approved the Connecticut program on June 27, 1995, and the approval was effective on August 4, 1995.

(b) Connecticut has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under Sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Connecticut must revise its approved program to adopt new changes to the federal Subtitle I program which make it more stringent, in accordance with Section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Connecticut obtains approval for the revised requirements pursuant to Section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Connecticut has final approval for the following elements submitted to EPA in Connecticut’s program application for final approval EPA and approved by EPA on June 27, 1995, effective on August 4, 1995. Copies may be obtained from the Underground Storage Tank Program, Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106. The elements are listed as follows:

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
(B) Connecticut Regulatory Requirements Applicable to the Underground Storage Tank Program, 1996.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(B) Public Participation in the State Enforcement Process. Connecticut General Statutes, Sections 4–177a, 22a–6, 22a–16, 22a–18, 22a–19, 52–107, and 52–474.

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes:

(A) Section 22a–449(d)–1 of the Regulations of Connecticut State Agencies for the Control of the Nonresidential Underground Storage and Handling of Oil and Petroleum Liquids; and

(B) Requirements, including those for registration and permanent closure, for tanks greater than 2,100 gallons containing heating oil consumed on the premises where stored.

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval,” signed by the Attorney General of Connecticut on December 21, 1994, though not incorporated by reference, is referenced as part of the State’s approved underground storage
tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Connecticut to EPA, December 21, 1994, though not incorporated by reference, is referenced as part of the State’s approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application in December 1994, though not incorporated by reference, is referenced as part of the State’s approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in December 1994, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. On October 16, 1995, EPA and the Connecticut Department of Environmental Protection signed the Memorandum of Agreement. Though not incorporated by reference, the Memorandum of Agreement is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§§ 282.57–282.59 [Reserved]

§ 282.60 Georgia State-Administered Program.

(a) The State of Georgia is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Georgia Department of Natural Resources, Environmental Protection Division, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Georgia program on April 29, 1991 and it was effective on July 9, 1991.

(b) Georgia has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Georgia must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent. In accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Georgia obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Georgia has final approval for the following elements submitted to EPA in Georgia’s program application for final approval and approved by EPA on April 29, 1991. Copies may be obtained from the Underground Storage Tank Management Program, Georgia Environmental Protection Division, 3244 International Parkway, Suite 100, Atlanta, GA 30354.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Georgia Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include the following sections of the Georgia Underground Storage Tank Act:

12-13-5—Rules and regulations; enforcement powers.
12-13-8—Investigations.
12-13-14—Corrective action for violations of chapter, rules, etc., and for release of regulated substance into environment.
12-13-15—Injunctions and restraining orders.
(B) The regulatory provisions include the following sections of Rules of Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Management:

391–3–15–.01(2)—Authority, and
391–3–15–.14—Enforcement

(2) Statement of legal authority. (i) “Attorney General’s Certification of ‘No Less Stringent’ Objectives And ‘Adequate Enforcement’ Authorities Implementing The Underground Storage Tank Program”, signed by the Attorney General of Georgia on February 20, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on February 20, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in February 1990, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 4 and the Georgia Department of Natural Resources, signed by the EPA Regional Administrator on July 10, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.61 Hawaii State-Administered Program.

(a) The State of Hawaii’s underground storage tank program is approved in lieu of the Federal program in accordance with Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Hawaii Department of Health, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Hawaii underground storage tank program on September 25, 2002, and approval was effective on September 30, 2002.

(b) Hawaii has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) To retain program approval, Hawaii must revise its approved program to adopt new changes to the Federal Subtitle I program that make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Hawaii obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Hawaii has final approval for the following elements submitted to EPA in the State’s program application for final approval. On September 25, 2002, EPA published a rule approving the State’s program in the FEDERAL REGISTER, 67 FR 60161. That approval became effective on September 30, 2002. Copies of Hawaii’s program application may be obtained from the Hawaii Department of Health, Solid and Hazardous Waste Branch, 919 Ala Moana Boulevard, Suite 212, Honolulu, HI 96814.

(1) State statutes and regulations. (i) The provisions cited in paragraph (d)(1)(i) of this section are incorporated by reference as part of the approved
underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(ii) EPA considered the following statutes and regulations in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include of the Hawaii Revised Statutes:

(1) Hawaii Revised Statutes, Chapter 342L, Underground Storage Tanks.

Section 342L–1 Definitions (insofar as “complaint” sets forth enforcement authorities)
Section 342L–2 Administration
Section 342L–3 Powers; rulemaking; appointment of hearings officers
Section 342L–7 Authority to obtain information and data, inspect, and require and conduct activities; penalties for disclosure
Section 342L–8 Enforcement
Section 342L–9 Emergency powers; procedures
Section 342L–10 Penalties
Section 342L–11 Administrative penalties
Section 342L–12 Injunctive relief
Section 342L–12.5 Intervention
Section 342L–13 Appeal
Section 342L–15 Public records; confidential information
Section 342L–17 Other action not barred
Section 342L–18 Enforcement by state and county authorities
Section 342L–19 Other powers of department not affected
Section 342L–20 Effect of laws, ordinances, and rules
Section 342L–21 Priority in courts
Section 342L–30 Notification requirements (insofar as paragraph (i) of this section grants the Department authority to assess penalties for noncompliance)
Section 342L–51 Leaking underground storage tank fund
Section 342L–52 Response to suspected or confirmed releases (insofar as it sets forth enforcement authorities)
Section 342L–53 Cost recovery

(2) Hawaii Revised Statutes, Chapter 342D, Water Pollution.

Section 342D–8 Inspection of premises
Section 342D–9 Enforcement
Section 342D–10 Emergency powers; procedures
Section 342D–11 Injunctive relief
Section 342D–12 Appeal

Section 342D–14 Public records; confidential information; penalties
Section 342D–30 Civil penalties
Section 342D–31 Administrative penalties
Section 342D–32 Negligent violations
Section 342D–33 Knowing violations
Section 342D–34 Knowing endangerment
Section 342D–35 False statements
Section 342D–36 Treatment of single operational upset
Section 342D–37 Responsible corporate officer as “person”
Section 342D–39 Disposition of collected fines and penalties
Section 342D–52 Testing of water and aquatic and other life

(3) Hawaii Revised Statutes, Chapter 128D, Environmental Response Law.

Section 128D–4 State response authorities; use of fund (insofar as it sets forth enforcement authorities for certain corrective actions)

(B) The regulatory provisions include; Hawaii Administrative Rules, Chapter 11–281, Underground Storage Tanks:

Section 11–281–03 Definitions (insofar as “complaint” sets forth enforcement authorities; and insofar as “field citation” and “force majeure” relate to the Department’s enforcement authorities)
Section 11–281–40 Public participation for corrective action plans (insofar as paragraph (i) of this section sets forth enforcement authorities)
Section 11–281–41 Purpose
Section 11–281–42 Applicability
Section 11–281–43 Issuance and contents of a field citation
Section 11–281–44 Notice of citation
Section 11–281–45 Field citation order and settlement agreement
Section 11–281–46 Correcting violations; paying the settlement amount; and signing the settlement agreement
Section 11–281–47 Method of payment
Section 11–281–48 Field citation penalty amounts for settlement
Section 11–281–131 Appendices VII and VIII (insofar as they relate to the Department’s field citation program)

(iii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference. These provisions are not federally enforceable.

(A) The statutory provisions include; Hawaii Revised Statutes, Chapter 342L, Underground Storage Tanks:
Section 342L–1 Definitions ("owner" insofar as it includes persons who hold indicia of ownership to protect an interest in a tank system; "permit" insofar as it sets forth a permitting program; and "regulated substance" insofar as it includes other substances as designated by the Department)
Section 342L–4 Permits; procedures for (insofar as it establishes a permitting program)
Section 342L–5 Variances allowed (insofar as variances exceed the scope of the federal program)
Section 342L–6 Variances; procedures for (insofar as variances exceed the scope of the federal program)
Section 342L–14 Fees (insofar as it grants the director authority to establish fees for registering underground storage tanks)
Section 342L–16 Non-liability of department personnel (insofar as it was specifically not authorized in the FEDERAL REGISTER notice of program approval)
Section 342L–23 Directory of underground storage tank service providers (insofar as its designation of farm tanks exceeds the scope of the federal regulations)
Section 342L–31 Permit requirements and transfer of permit (insofar as it requires owners and operators to obtain permits to install or operate UST systems)
Section 342L–50 Definitions (insofar as the definition of "owner" defines lenders as operators and subjects such lenders to requirements other than the corrective action requirements)

(B) The regulatory provisions include the following sections of Hawaii Administrative Rules, Chapter 11–281, Underground Storage Tanks:

Section 11–281–03 Definitions ("farm tank" insofar as it regulates tanks on farms that are not used for farm or commercial purposes; "regulated substance" insofar as the Department can designate other substances; "reportable quantity" insofar as it sets forth a reporting threshold of 10 lbs. for trichloropropane; and "underground storage tank" insofar as its designation of farm tanks exceeds the scope of the federal regulations)
Section 11–281–23 Permit required (insofar as it relates to the permitting program)
Section 11–281–24 Application for a permit (insofar as paragraphs (a), (b), (c)(3), and (c)(4) of this section relate to the permitting program)
Section 11–281–25 Permit (insofar as paragraphs (a) and (b) of this section relate to the permitting program)
Section 11–281–26 Permit renewals (insofar as it relates to the permitting program)

Section 11–281–27 Action on and timely approval of an application for a permit (insofar as it relates to the permitting program)
Section 11–281–28 Permit conditions (insofar as it relates to the permitting program)
Section 11–281–29 Modification of permit and notice of change (insofar as it relates to the permitting program)
Section 11–281–30 Revocation or suspension of permit (insofar as it relates to the permitting program)
Section 11–281–31 Change in owner or operator for a permit (insofar as it relates to the permitting program)
Section 11–281–32 Variances allowed (insofar as variances exceed the scope of the federal program)
Section 11–281–33 Variance applications (insofar as variances exceed the scope of the federal program)
Section 11–281–34 Maintenance of permit or variance (insofar as it relates to the permitting program)
Section 11–281–35 Fees (insofar as it establishes registration fees)
Section 11–281–45 Reporting and record-keeping (insofar as paragraph (b)(3) of this section addresses posting of signs; and paragraph (c)(6) of this section requires maintenance of permit records)
Section 11–281–73 Posting of signs (insofar as there is no analogous provision in the federal regulations)
Section 11–281–131 Appendices II, IV, V, and VI of this section (insofar as they address permit application and transfer procedures and variances)

(2) Statement of legal authority. (i) "Attorney General’s Statement," signed by the State Attorney General on October 12, 2000, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Hawaii to EPA, October 12, 2000, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The "Demonstration of Procedures for Adequate Enforcement" submitted as part of the original application on May 23, 2001, though

not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program Description. The program description and any other material submitted as part of the original application on May 23, 2001, though not incorporated by reference, are referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 9 and the Hawaii Department of Health, signed by the EPA Regional Administrator on September 13, 2002, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[73 FR 53744, Sept. 17, 2008]

§§ 282.62–282.64 [Reserved]

§ 282.65 Iowa State-Administered Program.

(a) The State of Iowa is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Iowa Department of Natural Resources, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Iowa program on March 7, 1995 and it was effective on May 8, 1995.

(b) Iowa has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Iowa must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Iowa obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Iowa Statutory Requirements Applicable to the Underground Storage Tank Program, 1994

(B) Iowa Regulatory Requirements Applicable to the Underground Storage Tank Program, 1994

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

Code of Iowa, Chapter 455B, Sections 103(4), 109, 111, 112, 475, 476, 477 and 478.

(B) Iowa Administrative Code, Rule 567, Chapter 134.1–5 insofar as they apply to the registration of groundwater professionals; 135.3(4) insofar as it applies to farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.
§ 282.66 Kansas State-Administered Program.

(a) The State of Kansas is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Kansas Department of Health and Environment, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Kansas program on June 6, 1994 and it was effective on July 6, 1994.

(b) Kansas has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Kansas must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Kansas obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Kansas has final approval for the following elements submitted to EPA in Kansas’ program application for final approval and approved by EPA on June 6, 1994. Copies may be obtained from the Underground Storage Tank Program, Kansas Department of Health and Environment, Forbes Field, Building 740, Topeka, Kansas, 66620–0001.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Kansas Statutory Requirements Applicable to the Underground Storage Tank Program, 1994

(B) Kansas Regulatory Requirements Applicable to the Underground Storage Tank Program, 1994

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: Kansas Statutes Annotated, Chapter 65, Public Health, Article 34, Kansas Storage Tank Act, Sections 108, 109 and 113.

(ii) The following statutory and regulatory provisions are broader in scope
than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Kansas Statutes Annotated, Chapter 65, Article 34, Sections 105(2) 

than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Kansas Statutes Annotated, Chapter 65, Article 34, Sections 105(2) 

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(A) Kansas Statutes Annotated, Chapter 65, Article 34, Sections 105(2) 

than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Kansas Statutes Annotated, Chapter 65, Article 34, Sections 105(2) 

than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.
(c) To retain program approval, Louisiana must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Louisiana obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Louisiana has final approval for the following elements submitted to EPA in Louisiana’s program application for final approval and approved by EPA on July 24, 1992. Copies may be obtained from the Underground Storage Tank Program, Louisiana Department of Environmental Quality, 7290 Bluebonnet Road, Baton Rouge, LA 70810-1612.

1. State statutes and regulations.

   (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.
   
   
   (B) Louisiana Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

   (ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes:

   (A) The statutory provisions include:

   (1) Louisiana Revised Statutes, Title 30

   §2012 Enforcement Inspections

   §2025 Enforcement

   §2026 Citizen Suits

   §2077 Remediation of Pollution

   §2275 Demand by Secretary; Remedial Action

   (B) The regulatory provisions include:

   (1) Louisiana Environmental Regulatory Code, Part XI: Underground Storage Tanks, Chapter 15—Enforcement:

   §1301 Inspection and Entry

   §1303 Failure to Comply

   §1305 Investigations: Purposes, Notice

   (iii) The following regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

   (A) Louisiana Environmental Regulatory Code, Part XI: Underground Storage Tanks

   (1) Chapter 13—Certification Requirements for Persons Who Install, Repair, or Close Underground Storage Tank Systems [Insofar as it applies to individuals other than UST owners and operators.]

   §1301 Applicability

   §1303 Definitions

   §1305 Categories of Certification and Requirements for Issuance and Renewal of Certificates

   §1307 Certification Examinations

   §1309 Approval of Continuing Training Courses

   §1311 Denial of Issuance or Renewal of a Certificate or Revocation of a Certificate

   §1313 UST Certification Board

   (2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of Louisiana on September 12, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

   (ii) Letter from the Attorney General of Louisiana to EPA, September 12, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

   (3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on October 15, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

   (4) Program description. The program description and any other material submitted as part of the original application on October 15, 1991, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
§ 282.69 Maine State-Administered Program.

(a) The State of Maine is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq.

The State's program, as administered by the Maine Department of Environmental Protection, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Maine program on February 18, 1992, and the approval was effective on March 18, 1992.

(b) Maine has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 3007, 7003, 9005 and 9006 of RCRA, 42 U.S.C. 6927, 6973, 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Maine must revise its approved program to adopt new changes to the federal Subtitle I program which make it more stringent, in accordance with sections 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Maine obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Maine has final approval for the following elements submitted to EPA in Maine's program application for final approval and approved by EPA on February 18, 1992. Copies may be obtained from the Underground Storage Tank Program, Maine Department of Environmental Protection, AMHI Complex-Ray Building, Hospital Street, Augusta, ME 04333. The elements are listed below:

1. State statutes and regulations.
   (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.
   (B) Maine Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.
   (ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.
   (A) Title 38 Maine Statutes Annotated, Section 565, insofar as it refers to registration requirements for tanks greater than 1,100 gallons containing heating oil consumed on the premises where stored.
   (B) Maine Environmental Protection Regulations Chapter 691, Section 6 regulations of heating oil facilities for consumption on premises, Section 9 facilities for underground storage of heavy oils.

2. Statement of legal authority.
   (i) Attorney General's Statement for Final Approval, signed by the Attorney General of Maine on December 5, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
   (ii) Letter from the Attorney General of Maine to EPA, is referenced as part of the approved underground storage
Environmental Protection Agency § 282.71

§ 282.71 Massachusetts State-Administered Program.

(a) The State of Massachusetts is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Massachusetts Department of Public Safety (now called the Massachusetts Department of Fire Services) and the Massachusetts Department of Environmental Protection, was approved by EPA pursuant to 42 U.S.C. 6991c and 40 CFR Part 281. EPA approved the Massachusetts program on March 3, 1995, which was effective on April 17, 1995.

(b) Massachusetts has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under Sections 9005 and 9006 of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Massachusetts must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with Section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR Part 281, subpart E. If Massachusetts obtains approval for the revised requirements pursuant to Section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Massachusetts has final approval for the following elements submitted to EPA in Massachusetts’ program application for final approval and approved by EPA on March 3, 1995. Copies may be obtained from the Underground Storage Tank Program, Massachusetts Department of Environmental Protection, 1 Winter Street, Boston, MA 02108 or Massachusetts Department of Fire Services, P.O. Box 1025, State Road, Stowe, MA 01775. The elements are listed below:

(i) State statutes and regulations.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Massachusetts Statutory Requirements Applicable to the Underground Storage Tank Program at Massachusetts General Laws, Chapter 148, Section 13 Paragraph 3 and Sections 38, 38A–38C, and 38E; Massachusetts General Laws, Chapter 21E, Sections 2, 3A(e) and 3(c), 4, 5, 6, 8. 

(B) Massachusetts Regulatory Requirements Applicable to the Underground Storage Tank Program at 527 CMR 9.00–9.02 and 9.05, 9.06(C), (D), and (E), and 9.07(A)–(I) and 9.07(K)–(L); and those provisions of 310 CMR Sections 40.0000 subparts A–O only insofar as they pertain to the regulation of underground storage tanks in Massachusetts and only insofar as they are not broader in scope than the federal requirements. Note that reserved sections of 310 CMR 40.0000 et seq. are not incorporated by reference.
(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: Massachusetts General Laws, Chapter 148, Section 4; Sections 38D, 38F, 38I through 38H; Massachusetts General Law, Chapter 21E, The Massachusetts Oil and Hazardous Materials Release Prevention and Response Act, Amended 1992 Massachusetts General Laws, Sections 7, 9, and 11, and Chapter 21J, Sections 2–4; and, Massachusetts General Law, Chapter 185, Section 3.

(B) The regulatory provisions include: Massachusetts Board of Fire Prevention Rules, 527 CMR Sections 9.07(J); and, Massachusetts Environmental Protection Rules, and those provisions of 310 CMR Sections 40.0000 Subparts A–O only insofar as they pertain to the regulation of underground storage tanks in Massachusetts and are not incorporated by reference and only insofar as they are not broader in scope than the federal requirements.

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Massachusetts Board of Fire Prevention Rules, Sections 9.03 through 9.06 which pertain to aboveground tanks; 9.05A(4) insofar as it refers to upgrade requirements for new or replacement underground tanks for consumptive use on the premises; 9.06 (A) and (B) insofar as they refer to aboveground tanks; and 9.07(J) insofar as it refers to aboveground tanks, and those provisions of 310 CMR 40.0000 Subparts A–O insofar as they do not relate to underground storage tanks and with respect to underground storage tanks insofar as they are broader in scope than the federal requirements.

(B) [Reserved]

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of Massachusetts on August 18, 1993, though not incorporated by reference, is part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Massachusetts to EPA, August 18, 1993, though not incorporated by reference, is part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application in December 1991, though not incorporated by reference, is part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The Program Description (PD) and any other material submitted as part of the original application in December 1991, though not incorporated by reference, are part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The April 30, 1995, EPA and the Massachusetts Department of Public Safety and the Massachusetts Department of Environmental Protection Memorandum of Agreement (MOA), though not incorporated by reference, is part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[61 FR 56136, Oct. 31, 1996]

§ 282.73 Minnesota State-Administered Program.

(a) The State of Minnesota’s underground storage tank program is approved in lieu of the Federal program in accordance with Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Minnesota Pollution Control Agency, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Minnesota underground storage tank program on November 30, 2001, and approval was effective on December 31, 2001.

(b) Minnesota has primary responsibility for enforcing its underground
storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) To retain program approval, Minnesota must revise its approved program to adopt new changes to the Federal Subtitle I program that make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Minnesota obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Minnesota has final approval for the following elements submitted to EPA in the State’s program application for final approval. On November 30, 2001, EPA published a rule approving the State’s program in the FEDERAL REGISTER, 66 FR 59713. That approval became effective on December 31, 2001. Copies of Minnesota’s program application may be obtained from the Minnesota Pollution Control Agency, UST/LUST Program, 520 Lafayette Road North, St. Paul, MN 55155-3898.

(1) State statutes and regulations. (i) The provisions cited in paragraph (d)(1)(i) of this section are incorporated by reference as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Minnesota Regulatory Requirements Applicable to the Underground Storage Tank Program, 2000.

(ii) EPA considered the following statutes and regulations in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include:

(1) Minnesota Statutes, Chapter 13, Government Data Practices

M. S. 13.08 Civil remedies

M. S. 13.09 Penalties

(2) Minnesota Statutes, Chapter 115, Water Pollution Control; Sanitary Districts

M. S. 115.04 Disposal Systems and Point Sources; subd. 1, 2, 3: Information; Examination of records; Access to premises

M. S. 115.071 Enforcement

M. S. 115.072 Recovery of Litigation Costs and Expenses

(3) Minnesota Statutes, Chapter 115B, Environmental Response and Liability

M. S. 115B.17 State response to releases; subd. 4: Access to information and property

M. S. 115B.175 Voluntary Response Actions; Liability Protection; Procedures

M. S. 115B.177 Owner of Real Property Affected by Off-Site Release

M. S. 115B.178 Association with Release; Commissioner’s Determination

M. S. 115B.18 Failure to Take Requested Action; Civil Penalties; Action to Compel Performance; Injunctive Relief

(4) Minnesota Statutes, Chapter 115C, Petroleum Tank Release Cleanup

M. S. 115C.04 Liability for Response Costs

M. S. 115C.05 Civil Penalty

M. S. 115C.09 Reimbursement; subd. 5(b), 6: Return of reimbursement; Fraud

M. S. 115C.13 Orders

M. S. 115C.12 Appeal of reimbursement determination

(5) Minnesota Statutes, Chapter 116, Pollution Control Agency

M. S. 116.07 Powers and Duties; subd. 9(b): Orders; Investigations

M. S. 116.072 Administrative Penalties

M. S. 116.073 Field Citations

M. S. 116.091 Systems and Facilities

M. S. 116.11 Emergency Powers

(6) Minnesota Statutes, Chapter 116B, Environmental Rights

M. S. 116B.03 Civil Actions

M. S. 116B.07 Relief

(B) The regulatory provisions include:

(1) Minnesota Rules of Civil Procedure

Rule 24.01 Intervention of Right

Rule 24.02 Permissive Intervention

(2) Minnesota Rules, Chapter 2890, Petroleum Tank Releases

2890.0100 Review and Determination

2890.0110 Right to Appeal

2890.0130 Action on Notice of Lien Filing

(3) Minnesota Rules, Chapter 7000, Procedural Rule

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§ 282.73

M. S. 7000.0300 Duty of Candor
M. S. 7000.0900 Informal Complaints
M. S. 7000.1200 Inspection of Public Records
M. S. 7000.1300 Confidential Information

(ii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference. These provisions are not federally enforceable.

(A) The statutory provisions include:

1. Minnesota Statutes, Chapter 115C, Petroleum Tank Release Cleanup

M. S. 115C.03 Response to releases [insofar as subd. 10 imposes recordkeeping requirements on contractors and consultants.]
M. S. 115C.045 Kickbacks [insofar as it applies to individuals other than UST system owners and operators.]
M. S. 115C.065 Consultants’ or Contractors’ duty to notify [insofar as it imposes notification requirements on contractors and consultants.]
M. S. 115C.38 Petroleum tank fund [insofar as subd. 3 imposes a petroleum tank release cleanup fee on petroleum distributors.]
M. S. 115C.11 Consultants and contractors; sanctions [insofar as it applies to individuals other than UST system owners and operators.]
M. S. 115C.111 Consultant and contractor sanctions; actions based on conduct occurring before March 14, 1996 [insofar as it applies to individuals other than UST system owners and operators.]
M. S. 115C.112 Consultant and contractor sanctions; actions based on conduct occurring on or after March 14, 1996 [insofar as it applies to individuals other than UST system owners and operators.]

1. Minnesota Statutes, Chapter 116, Pollution Control Agency

M. S. 116.46 Definitions [insofar as subd. 8 includes vessels, enclosures, or structures—which are exempt from the federal program—in the definition of UST.]
M. S. 116.47 Exemptions [insofar as paragraph (2) does not exclude from regulation USTs of 1,100 gallon capacity or more used to store heating oil for consumptive use.]
M. S. 116.48 Notification requirements [insofar as subd. 1(b) requires that the owner of an AST must notify the MPCA of the tank’s status.]
M. S. 116.48 Notification requirements [insofar as subd. 2 imposes requirements on owners who discover an abandoned AST.]
M. S. 116.48 Notification requirements [insofar as subd. 3 imposes notification requirements on owners of ASTs removing a tank from service or changing the tank’s service.]
M. S. 116.48 Notification requirements [insofar as subd. 4 places notification requirements on persons transferring the title to regulated substances to be placed directly into an UST.]
M. S. 116.48 Notification requirements [insofar as subd. 5 imposes notification requirements on sellers of ASTs.]
M. S. 116.48 Notification requirements [insofar as subd. 6 imposes notification requirements on owners who plan to transfer ownership of property containing an AST.]
M. S. 116.491 Tank installers training and certification [insofar as it applies to individuals other than UST system owners and operators.]
M. S. 116.492 Basement storage tanks; removal [insofar as it applies to a class of tanks not regulated under the federal program.]

(B) The regulatory provisions include:

1. Minnesota Rules, Chapter 7105—Minnesota Pollution Control Agency, Water Quality Division, Underground Storage Tanks: Training

7105.0010 Definitions [insofar as subp. 25 includes vessels, enclosures, and structures—which are exempt from the federal program—in the definition of UST.]
7105.0030 General Provisions; Certification requirements and deadlines; Certificate availability [insofar as subp. 1 and 2 require training for individuals not regulated under the federal program.]
7105.0040 Exclusions [insofar as it does not exclude from regulation heating oil storage tanks with a capacity of greater than 1,100 gallons.]
7105.0050 Contractor Certification
7105.0060 Supervisor Certification
7105.0070 Standards of Performance
7105.0080 Storage Tank Service Provider Training Course Requirements
7105.0090 Examinations and Diplomas
7105.0100 Approval of Certification Training Courses
7105.0110 Sanctions
7105.0120 Fees
7105.0130 Incorporation by Reference

(2) Minnesota Rules, Chapter 7150—Minnesota Pollution Control Agency, Water Quality Division, Underground Storage Tanks Program

7150.0010 Applicability [insofar as subp. 2 does not exclude from regulation liquid traps or associated gathering lines directly
related to oil and gas production and gathering operations.]
7150.0010 Applicability [insofar as subp. 2(H) does not exclude from regulation heating oil storage tanks with a storage capacity of greater than 1,100 gallons.]
7150.0010 Applicability [insofar as subp. 5 does not exclude owners and operators of heating oil storage tanks with a storage capacity of greater than 1,100 gallons from notification requirements.]
7150.0030 Definitions [insofar as subp. 51 includes vessels, enclosures, and structures—which are exempt from the federal program—in the definition of UST.]
7150.0300 General Requirements for All Underground Storage Tank Systems [insofar as subp. 3 imposes release detection schedule requirements on hazardous material tanks not regulated under the federal program.]

(3) Minnesota Rules, Chapter 7510—Department of Public Safety, Fire Marshal Division, Fire Safety
7510.3670 Liquefied Petroleum Gases: Section 8203: Installation of Containers [insofar as it regulates ASTs.]

(2) Statement of legal authority. (i) “Attorney General’s Statement,” signed by the State Attorney General on September 12, 2000, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Minnesota to EPA, September 12, 2000, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on May 11, 2000, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program Description. The program description and any other material submitted as part of the original application on May 11, 2000, though not incorporated by reference, are referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 5 and the Minnesota Pollution Control Agency, signed by the EPA Regional Administrator on November 14, 2001, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.74 Mississippi State-Administered Program.

(a) The State of Mississippi is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Mississippi Department of Environmental Quality, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Mississippi program on June 11, 1990 and it was effective on July 11, 1990.

(b) Mississippi has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Mississippi must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Mississippi obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Mississippi has final approval for the following elements submitted to EPA in the State’s program application for final approval and approved by EPA on June 11, 1990. Copies may be
obtained from the Underground Storage Tank Program, Mississippi Department of Environmental Quality, 2380 Highway 80 West, Jackson, MS 39289–0385.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Mississippi Statutory Requirements Applicable to the Underground Storage Tank Program, 1996.

(B) Mississippi Regulatory Requirements Applicable to the Underground Storage Tank Program, 1996.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:


49–17–415 Obligations of owners and operators of tanks; powers of commission or representatives
49–17–427 Proceedings before commission; penalties for violations of Sections 49–17–401 through 49–17–433
49–17–431 Appeal rights

(2) Mississippi Code of 1972, Title 49, Chapter 17, Pollution of Waters, Streams, and Air.

49–17–17 Powers and duties
49–17–27 Emergency orders; public notice of emergency situations
49–17–31 Proceedings before commission
49–17–33 Hearings
49–17–35 Request for hearing
49–17–41 Administrative appeals; appeals to chancery court; appeals to supreme court
49–17–43 Penalties

(3) Mississippi Code of 1972, Title 49, Chapter 2, Department of Environmental Quality.

49–2–9 Commission on Environmental Quality; powers and duties
49–2–13 Powers and duties of executive director

(4) Mississippi Code of 1972, Title 17, Chapter 17, Solid Wastes Disposal.

17–17–29 Penalties; injunction; recovery of cost of remedial action; disposition of fines

(B) The regulatory provisions include:

(1) Mississippi Groundwater Protection Trust Fund Regulations.

Section XX Enforcement Actions

(2) [Reserved]

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:


49–17–429 Certification to install, alter or remove underground storage tanks

(2) [Reserved]

(B) The regulatory provisions include:

(1) Underground Storage Tank Regulations for the Certification of Persons who Install, Alter, and Remove Underground Storage Tanks.

Section I General Intent
Section II Legal Authority
Section III Definitions
Section IV Applicability
Section V General Requirements
Section VI Certification Requirements
Section VII Testing
Section VIII Certification
Section IX Certification Renewals
Section X Continuing Education
Section XI Lapsed Certification
Section XII Revocation, Denial, and Non-Renewal of Certificates
Section XIII Enforcement and Appeals
Section XIV Property Rights

(2) Mississippi Groundwater Protection Trust Fund Regulations.

Section IV Immediate Response Action Contractor (IRAC) Application Process
Section V IRAC Application Review
Section VI IRAC Performance Standards
Section VII Denial of IRAC Applications
Section VIII Removal from the Approved List of IRAC’s
Section IX Engineering Response Action Contractor (ERAC) Application Process
Section X ERAC Submittal of Documentation Requested By the Department
Section XI ERAC Performance Standards
Section XII Removal from the Approved List of ERAC’s
Section XIII Denial of ERAC Applications

(2) Statement of legal authority. (i) "Attorney General’s Statement for
Final Approval, signed by the State Attorney General on August 15, 1989, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Mississippi to EPA, August 15, 1989, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on August 14, 1989, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application on August 14, 1989, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 4 and the Mississippi Department of Environmental Quality, approved by the EPA Regional Administrator, as part of the delegation package which received final program approval on June 11, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(a) The State of Nevada is approved to administer and enforce an underground storage tank program in lieu of the Federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The state’s program, as administered by the Nevada Division of Environmental Protection was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Nevada program on December 24, 1992 and it was effective March 30, 1993.

(b) Nevada has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Nevada must revise its approved program to adopt new changes to the Federal Subtitle I program, which makes it more stringent in accordance with sections 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Nevada obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Nevada has final approval for the following elements submitted to EPA in Nevada’s program application for final approval and approved by EPA on December 24, 1992. Copies may be obtained from the Nevada State Office Library, Board Room, 100 Stewart Street, Carson City, Nevada 89710.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Nevada Regulatory Requirements Applicable to the Underground Storage Tank Program, 1992.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

§ 282.79 New Hampshire.

(a) The State of New Hampshire is approved to administer and enforce an underground storage tank program in lieu of the federal program under sub-
State’s program, as administered by the New Hampshire Department of En-
vironmental Services, was approved by EPA pursuant to 42 U.S.C. 6991c and
part 281 of this Chapter. EPA’s ap-
proval was effective on July 10, 1991.

(b) New Hampshire has primary re-
sponsibility for enforcing its under-
ground storage tank program. How-
ever, EPA retains the authority to ex-
ercise its enforcement authorities
under sections 9005 and 9006 of subtitle
I of RCRA, 42 U.S.C. 6991d and 6991e, as
well as under other applicable statu-
tory and regulatory provisions.

(c) To retain program approval, New
Hampshire must revise its approved
program to adopt changes to the fed-
eral subtitle I program which make it
more stringent, in accordance with sec-
tion 9004 of RCRA, 42 U.S.C. 6991c, and
40 CFR part 281, subpart E. If New
Hampshire obtains approval for the re-
vised requirements pursuant to section
9004 of RCRA, 42 U.S.C. 6991c, the newly
approved statutory and regulatory pro-
visions will be added to this section
and notice of any change will be pub-
lished in the FEDERAL REGISTER.

(d) New Hampshire has final approval
for the following elements submitted
to EPA in New Hampshire’s program
application for final approval and ap-
proved by EPA on June 19, 1991, becom-
ing effective on July 19, 1991. Copies
may be obtained from the Underground
Storage Tank Program, New Hamp-
shire Department of Environmental
Services, 6 Hazen Drive, Concord, NH
03302–0095.

(1) State statutes and regulations. (i) The
provisions cited in this paragraph
submersory adopted by reference as part of the
underground storage tank program
under sub-
title I of RCRA, 42 U.S.C. 6991 et seq.

(A) New Hampshire Statutory Re-
duirements Applicable to the Under-
ground Storage Tank Program, 1993.

(B) New Hampshire Regulatory Re-
duirements Applicable to the Under-
ground Storage Tank Program, 1993.

(2) Program description. The program
description and any other material
submitted as part of the original appli-
cation in October 1992, though not incor-
porated by reference, is referenced as part of the approved
underground storage tank program
under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for ade-
quate enforcement. The “Demonstra-
tion of Procedures for Adequate Enforce-
ment” submitted as part of the original
application of October 1, 1992,
thought not incorporated by reference,
is referenced as part of the approved
underground storage tank program
under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Memorandum of Agreement. The
Memorandum of Agreement between
EPA Region 9 and the Nevada Division
of Environmental Protection, signed by the
EPA Regional Administrator on
December 17, 1992, though not incor-
porated by reference, is referenced as part of the approved
underground storage tank program
under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[63 FR 38500, July 17, 1998]
reference herein for enforcement purposes.

(A) The statutory provisions include: New Hampshire Revised Statutes Annotated (Supplement 1988) Sections 146-C:9a, 146-C:10, and 146-C:10a; 147-A:1 through 147-A:13; 541-A:1 through 541-A:10; 91-A:1 through 91-A:8.


(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: New Hampshire Revised Statutes Annotated (Supplement 1988) Section 146-C:1.XII, insofar as it refers to heating oil for consumptive use on the premises where stored.

(B) The regulatory provisions include: New Hampshire Code of Administrative Rules (1990) Sections Env-Ws 411.01 and 411.02, insofar as they refer to heating oil for consumptive use on the premises where stored.

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of New Hampshire on November 1, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of New Hampshire to EPA, November 1, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures For Adequate Enforcement” submitted as part of the original application in December 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in December 1990, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of agreement. The Memorandum of Agreement between EPA Region I and the New Hampshire Department of Environmental Services, signed by the EPA Regional Administrator on August 8, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.80 [Reserved]

§ 282.81 New Mexico State-Administered Program.

(a) The State of New Mexico is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the New Mexico Environmental Improvement Board, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the New Mexico program on August 21, 1990 and it was effective on November 16, 1990.

(b) New Mexico has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, New Mexico must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent. In accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If New Mexico obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.
(d) New Mexico has final approval for the following elements submitted to EPA in New Mexico’s program application for final approval and approved by EPA on August 21, 1990. Copies may be obtained from the Underground Storage Tank Program, New Mexico Environmental Improvement Board, 1190 St. Francis Drive, Santa Fe, NM 87503.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) New Mexico Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(B) New Mexico Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(i) New Mexico Statutes 1978 Annotated, Chapter 74, Environmental Improvement.

(A) Article 4: Hazardous Wastes.

74–4–2 Permits; Issuance; Denial; Modification; Suspension; Revocation
74–4–3 Entry; Availability of Records
74–4–10 Enforcement; Compliance Orders; Civil Penalties
74–4–11 Penalty; Criminal
74–4–12 Penalty; Civil
74–4–13 Imminent Hazards; Authority of Director; Penalties
74–4–14 Administrative Actions; Judicial Review

(ii) Article 6: Water Quality.

74–6–7 Administrative Action; Judicial Review
74–6–10 Penalties Enforcement; Compliance Orders; Penalties; Assurance of Discontinuance
74–6–10.1 Civil Penalties
74–6–10.2 Criminal Penalties
74–6–11 Emergency; Powers of Delegated Constituent Agencies; Penalties

(iii) Article 6B: Ground Water Protection.

74–6B–5 Department’s Right of Entry and Inspection

(B) The regulatory provisions include:

(1) State of New Mexico Environmental Improvement Board Underground Storage Tank Regulations.

(i) Part X: Administrative Review.

§1000 Informal Review
§1001 Review By the Director on Written Memoranda
§1002 Public Participation

(2) New Mexico Rules Governing Appeals From Compliance Orders Under the Hazardous Waste Act and the Solid Waste Act.

(i) Part I: General Provisions.

§101 Authority
§102 Scope of Rules; Applicability of Rules of Civil Procedure
§103 Definitions
§104 Use of Number and Gender
§105 Powers and Duties of the Director, Hearing Officer, and Hearing Clerk
§106 Computation and Extension of Time
§107 Ex Parte Discussions
§108 Examination of Documents Filed
§109 Settlement; Consent Agreement

(ii) Part II: Document Requirements.

§201 Filing, Service, and Form of Documents
§202 Filing and Service of Documents Issued by Hearing Officer
§203 Compliance Order
§204 Request for Hearing; Answer to Compliance Order
§205 Notice of Docketing; Notice of Hearing Officer Assignment
§206 Motions

(iii) Part III: Prehearing Procedures and Discovery.

§301 General Rules Regarding Discovery
§302 Identity of Witnesses
§303 Production of Documents
§304 Request for Admissions
§305 Subpoenas
§306 Other Discovery

(iv) Part IV: Hearing Procedures.

§401 Scheduling the Hearing
§402 Evidence
§403 Objections and Offers of Proof
§404 Burden of Presentation; Burden of Persuasion


§501 Filing the Transcript
§502 Proposed Findings, Conclusions and Orders
§503 Recommended Decision
§504 Final Order by Director
§505 Judicial Review

Environmental Protection Agency

§ 282.83 North Carolina State-Administered Program.

(a) The State of North Carolina is approved to administer and enforce an underground storage tank program in lieu of the Federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Attorney General of New Mexico on June 25, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of New Mexico to EPA, June 25, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on September 25, 1989, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application on September 25, 1990, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the New Mexico Environmental Improvement Board, signed by the EPA Regional Administrator on September 13, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(61 FR 1217, Jan. 18, 1996)
the North Carolina Department of Environment and Natural Resources, Division of Waste Management, UST Section, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the North Carolina program on April 26, 2001 with an effective date of August 14, 2001.

(b) North Carolina has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, North Carolina must revise its approved program to adopt new changes to the Federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If North Carolina obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) North Carolina has final approval for the following elements submitted to EPA in the State’s program application for final approval and approved by EPA on April 26, 2001. Copies may be obtained from the North Carolina Department of Environment and Natural Resources, Division of Waste Management, UST Section, 2728 Capital Blvd., Raleigh, NC 27604.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(1) General Statutes of North Carolina, Chapter 143—State Departments, Institutions, and Commissions; Article 21, Water and Air Resources

§143-215.6A Enforcement procedures: civil penalties
§143-215.6B Enforcement procedures: criminal penalties
§143-215.6C Enforcement procedures: injunctive relief

(2) General Statutes of North Carolina, Chapter 143—State Departments, Institutions, and Commissions; Article 21A, Oil Pollution and Hazardous Substances Control

§143-215.79 Inspections and investigations; entry upon property
§143-215.88A Enforcement procedures: civil penalties
§143-215.88B Enforcement procedures: criminal penalties
§143-215.91A Limited liability for volunteers in oil and hazardous substance abatement
§143-215.94 Joint and several liability
§143-215.94F Limited amnesty
§143-215.94G Authority of the Department to engage in cleanups; actions for fund reimbursement (Insofar as (e) outlines enforcement authorities.)
§143-215.94K Enforcement
§143-215.94W Enforcement procedures: civil penalties
§143-215.94Y Enforcement procedures: criminal penalties
§143-215.94Z Enforcement procedures: injunctive relief

(3) General Statutes of North Carolina, Chapter 143B—Executive Organization Act of 1973

§143B-282 Environmental Management Commission—Creation; powers and duties
§143B-282.1 Environmental Management Commission—quasi-judicial powers; procedures

(4) General Statutes of North Carolina, Chapter 150B—Administrative Procedure Act

§150B-23 Commencement; assignment of administrative law judge; hearing required; notice; intervention

(5) General Statutes of North Carolina, Chapter 1A—Rules of Civil Procedure

Rule 24 Intervention
Environmental Protection Agency § 282.83

(B) The regulatory provisions include:

1. North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2N, Underground Storage Tanks

Section .0100 General Considerations (Insofar as .0101(c) provides inspection and enforcement authority.)


Section .0100 General Considerations (Insofar as .0101(c) provides inspection and enforcement authority.)

3. North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2P: Leaking Petroleum Underground Storage Tank Cleanup Funds

Section .0100 General Considerations (Insofar as .0101(d) provides inspection and enforcement authority.)

(iii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

1. General Statutes of North Carolina, Chapter 143—State Departments, Institutions, and Commissions; Article 21A, Oil Pollution and Hazardous Substances Control

§ 143-215.83 Discharges (Insofar as (c) addresses permit requirements.)

§ 143-215.92 Lien on vessel (Insofar as it addresses vessels, which are not regulated by the Federal program.)

§ 143-215.94A Definitions (Insofar as .94A(2) subjects certain heating oil tanks and the piping connected to otherwise excluded tanks to the regulatory requirements.)

§ 143-215.94C Commercial leaking petroleum underground storage tank cleanup fees (Insofar as it establishes annual operating fees.)

§ 143-215.94U Registration of petroleum commercial underground storage tanks; operation of petroleum underground storage tanks; operating permit required (Insofar as it requires owners and operators to obtain operating permits and pay operating fees for their tanks, and imposes requirements on individuals other than UST owners and operators.)

(B) The regulatory provisions include:

1. North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2N, Underground Storage Tanks

Section .0200 Program Scope and Interim Prohibition (Insofar as .0201 subjects USTs containing de minimis concentrations of regulated substances to closure requirements)

Section .0800 Out-of-Service UST Systems and Closure (Insofar as .0802 subjects USTs containing de minimis concentrations of regulated substances to closure requirements)


Section .0200 Program Scope (Insofar as .0203(b)(1) defines “annual operating fee”)

Section .0400 Responsibilities of Owners and Operators (Insofar as .0402(b)(2) addresses annual operating fee requirements.)

3. North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2P: Leaking Petroleum Underground Storage Tank Cleanup Funds

Section .0200 Program Scope (Insofar as .0201(a) and (b) and .0202(b)(1) relate to annual operating fees.)

Section .0300 Annual Operating Fees (Insofar as .0301 sets forth annual operating fee requirements.)

Section .0400 Reimbursement Procedure (Insofar as .0401(b) relates to annual operating fees.)

(2) Statement of legal authority. (1) “Attorney General’s Statement for Final Approval”, signed by the State Attorney General on January 5, 1998, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(1) Letter from the Attorney General of North Carolina to EPA, August 11,
§ 282.84 North Dakota State-Administered Program.

(a) The State of North Dakota is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the North Dakota Department of Health and Consolidated Laboratories, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the North Dakota program on October 11, 1991 and it was effective on December 10, 1991.

(b) North Dakota has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, North Dakota must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If North Dakota obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) North Dakota has final approval for the following elements submitted to EPA in North Dakota’s program application for final approval and approved by EPA on October 11, 1991. Copies may be obtained from the Underground Storage Tank Program, North Dakota Department of Health Consolidated Laboratories, 1200 Missouri Avenue, Bismarck, ND 58502-5520.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) North Dakota Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: North Dakota Century Code (NDCC), Chapter 23–20.3, Sections 23–20.3–06, 23–20.3–07 and 23–20.3–09. (B) The regulatory provisions include: North Dakota Administrative
(a) The State of Oklahoma is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Oklahoma Corporation Commission, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Oklahoma program on August 12, 1992 and it was effective on October 14, 1992.

(b) Oklahoma has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991 et seq., as well as under other statutory and regulatory provisions.

(c) To retain program approval, Oklahoma must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Oklahoma obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Oklahoma has final approval for the following elements submitted to EPA in Oklahoma’s program application for final approval and approved by EPA on August 12, 1991. Copies may be obtained from the Underground Storage Tank Program, Oklahoma Corporation Commission, Jim Thorpe Building, Room 238, Oklahoma City, OK 73105.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of North Dakota on February 28, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of North Dakota to EPA, February 28, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of Procedures for Adequate Enforcement. The “Demonstration of Procedures For Adequate Enforcement” submitted as part of the original application in April 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in April 1991, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region VIII and the North Dakota Department of Health and Consolidated Laboratories, signed by the EPA Regional Administrator on September 10, 1993, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.85 [Reserved]

§ 282.86 Oklahoma State-Administered Program.


(B) Oklahoma Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:
§ 282.86

(1) Oklahoma Statutes, Chapter 14: Oklahoma Underground Storage Tank Regulation Act

§ 306 Corporation Commission—Powers and Duties

§ 310 Inspections and Investigations—Violations—Notice—Failure To Take Corrective Action—Notice and Hearing—Orders—Service of Instruments—Notice to Real Property Owner and Opportunity for Hearing

§ 312 Enforcement of Actions and Remedies—Action for Equitable Relief—Jurisdiction—Relief

(B) The regulatory provisions include:

(1) Oklahoma Annotated Code, Chapter 25: Underground Storage Tanks, Subchapter 9: Inspections, Testing, and Monitoring

Part 1: Inspections

Part 5: Penalties

Part 7: Field Citations

Part 9: Shutdown of Operations


§ 165:27–9–1 Hearing, Orders, and Appeals

§ 165:27–9–2 Changes to Rules

§ 165:27–9–3 Notices

§ 165:27–9–4 Severability

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Oklahoma Statutes, Chapter 14: Oklahoma Underground Storage Tank Regulation Act

§ 308 Permits—Necessity—Application—Issuance—Fee—Denial, Refusal to Issue, Suspension or Revocation—Financial Responsibility Coverage (Insofar as (B) applies to individuals other than UST system owners and operators.)

§ 318 Program for Certification of Underground Storage Tank Professionals—Meeting Training and Other Requirements for Federal Law and Regulations and State Statutes (Insofar as it applies to individuals other than UST owners and operators.)

(B) Oklahoma Annotated Code, Chapter 25: Underground Storage Tanks

(1) Subchapter 1: General Provisions

Part 9: Notification and Reporting Requirements (Insofar as 165:25–1–45 requires owners of exempt USTs to notify the Commission of the existence of such systems.)

(2) Subchapter 3: Release Prevention, Detection, and Correction

Part 9: Installation of Underground Storage Tank Systems (Insofar as 165:25–3–48 applies to individuals other than UST owners and operators.)

Part 19: Certification for UST Consultants (Insofar as it applies to individuals other than UST owners and operators.)

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of Oklahoma on June 21, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Oklahoma to EPA, June 21, 1990, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on June 25, 1989, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application on June 25, 1989, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the Oklahoma Corporation Commission, signed by the EPA Regional Administrator on April 8, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[61 FR 1221, Jan. 18, 1996]
§ 282.87 Oregon State-Administered Program.

(a) The State of Oregon is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State's program, as administered by the Oregon Department of Environmental Quality, was approved by EPA pursuant to 42 U.S.C. 6991c and Part 281 of this Chapter. EPA published the notice of final determination approving the Oregon underground storage tank program on September 16, 2011, and it became effective on that date.

(b) Oregon has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its corrective action, inspection and enforcement authorities under sections 9003(h), 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991b(h), 6991d and 6991e, as well as its authority under other statutory and regulatory provisions.

(c) To retain program approval, Oregon must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Oregon obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Oregon has final approval for the following elements submitted to EPA in its program application as of September 16, 2011.

(1) State statutes and regulations.

(i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq. with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR Part 51. To enforce any edition other than that specified in this section, the Environmental Protection Agency must publish notice of change in the Federal Register and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of the material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of Oregon's program application may be obtained from the Underground Storage Tank Program, Oregon Department of Environmental Quality, 811 SW Sixth Avenue, Portland, Oregon 97204.


(B) Oregon Regulatory Requirements Applicable to the Underground Storage Tank Program, 2009.

(ii) EPA considered the following statutes and regulations in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include:

(J) Oregon Revised Statutes, Chapter 183, Administrative Procedures Act, 2009, insofar as the provisions and procedures apply to the underground storage tank program.

(2) Chapter 465, Hazardous Waste and Hazardous Materials I (Removal or Remedial Action: Sections 465.200–465.482 and Sections 465.990), insofar as these provisions apply to matters involving an “underground storage tank” as that term is defined in ORS 466.706(21), as limited by the exclusions listed in ORS 466.710, except that the term does not include a tank used for storing heating oil for consumptive use on the premises where stored. The following Sections are part of the approved state program, although not incorporated by reference herein for enforcement purposes: Sections 465.205 through 465.250, 465.257 through 465.300, 465.310 through 465.335, 465.400 through 465.435, 465.445 through 465.455 and 465.900.

(3) Chapter 466, Hazardous Waste and Hazardous Materials II (Oil Storage Tanks: Sections 466.706–466.920 and Sections 466.990–466.995), insofar as these provisions apply to matters involving an “underground storage tank” as that term is defined in ORS 466.706(21), as limited by the exclusions listed in ORS 466.710, except that the term does not include a tank used for storing heating
oil for consumptive use on the premises where stored. The following Sections are part of the approved state program, although not incorporated by reference herein for enforcement purposes: Sections 466.715 through 466.735, 466.746, 466.750 through 466.810, 466.820, 466.830 through 466.845, 466.901 through 466.920 and 466.994 through 466.995.

(d) Chapter 468 Environmental Quality Generally, insofar as these provisions apply to matters involving an "underground storage tank" as that term is defined in ORS 466.706(21), as limited by the exclusions listed in ORS 466.710, except that the term does not include a tank used for storing heating oil for consumptive use on the premises where stored. The following Sections are part of the approved state program, although not incorporated by reference herein for enforcement purposes: Sections 468.005 through 468.050, 468.090 through 468.140 and 468.963.

(B) The regulatory provisions include:

(1) Oregon Administrative Rules, Chapter 340, Division 11: Section 340–11–0545.
(2) Oregon Administrative Rules, Chapter 340, Division 12: Sections 340–012–0026 through 340–012–0053, 340–012–0067 (with the exception of subparagraphs (1) (k) and (l) and (2) (g) through (j)), 340–012–0074 (with the exception of subparagraph (1) (g)) and 340–012–0170 insofar as this applies to violations involving an underground storage tank.
(4) Oregon Administrative Rules, Chapter 390, Division 122: Section 390–142–0120.
(6) Oregon Code of Civil Procedure 33C.
(7) Oregon Administrative Rules, Chapter 690, Division 240, insofar as these provisions apply to matters involving an "underground storage tank" as that term is defined in ORS 466.706(21), as limited by the exclusions listed in ORS 466.710, except that the term does not include a tank used for storing heating oil for consumptive use on the premises where stored. The following Sections are part of the approved state program, although not incorporated by reference herein for enforcement purposes: Sections 690–240–0015, 690–240–0020, 690–240–0055 through 690–240–0340 and 690–240–0560 through 690–240–0640.

(iii) The following specifically identified sections and rules applicable to the Oregon underground storage tank program that are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(2) Chapter 466, Hazardous Waste and Hazardous Materials II (Oil Storage Tanks): Sections 466.750; 466.783 through 466.787; 466.858 through 466.882; and 466.990 through 466.992.

(B) The regulatory provisions include:

(1) Oregon Administrative Rules, Chapter 340: Divisions 160, 162, 163, 170, 177 and 178.
(2) Oregon Administrative Rules, Chapter 837, Division 40.

(2) Statement of legal authority. The Attorney General Statement, a letter signed on June 21, 2010, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the application for approval on July 19, 2010, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program Description. The program description and any other material submitted as part of the application on


§ 282.88 Pennsylvania State-Administered Program.

(a) The Commonwealth of Pennsylvania’s underground storage tank program is approved in lieu of the Federal program in accordance with Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Pennsylvania Department of Environmental Protection, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Pennsylvania underground storage tank program on September 11, 2003, and approval was effective on September 11, 2003.

(b) The Commonwealth has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) To retain program approval, the Commonwealth must revise its approved program to adopt new changes to the Federal Subtitle I program that make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If the Commonwealth obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) The Commonwealth has final approval for the following elements submitted to EPA in the State’s program application for final approval. On September 11, 2003, EPA published a rule approving the State’s program in the Federal Register, 66 FR 53520. That approval became effective on September 11, 2003. Copies of the Commonwealth’s program application may be obtained from the Pennsylvania Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Storage Tank Program, Rachel Carson State Office Building, Harrisburg, PA 17105–8762.

(1) State statutes and regulations. (i) The provisions cited in paragraph (d)(1)(i) of this section are incorporated by reference as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Pennsylvania Regulatory Requirements Applicable to the Underground Storage Tank Program, 2002.

(ii) EPA considered the following statutes and regulations in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include:

(1) Storage Tank and Spill Prevention Act of 1989, Public Law 169, No. 32

35 PS Section 6021.107 Powers and duties of department (insofar as paragraphs (b), (c), (e), and (f) grant the department enforcement authorities)

35 PS Section 6021 Ch. 13 Enforcement

(2) Title 35. Health and Safety; Chapter 44. Environmental Hearing Board Act

35 P.S. Section 7514 Jurisdiction

(3) Title 71. Article IV. Organization of Departmental Administrative Boards and Commissions and of Advisory Boards and Commissions

71 P.S. Section 180–1 Environmental Quality Board

(4) Title 71. Article XIX–A. Powers and Duties of the Department of Environmental Resources, its Officers and
Departmental and Advisory Boards and Commissions

§ 282.88

40 CFR Ch. 1 (7–1–12 Edition)

71 Pa.R.C. Rule 2326 Definitions
71 Pa.R.C. Rule 2327 Who May Intervene
71 Pa.R.C. Rule 2328 Petition to Intervene
71 Pa.R.C. Rule 2329 Action of Court on Petition
71 Pa.R.C. Rule 2330 Practice

(B) The regulatory provisions include:

(1) Pennsylvania Code, Chapter 245, Administration of the Storage Tank and Spill Prevention Programs

Section 245.303 General

(2) Pennsylvania Rules of Civil Procedure

Pa R.C.P. Rule 2326 Definitions
Pa R.C.P. Rule 2327 Who May Intervene
Pa R.C.P. Rule 2328 Petition to Intervene
Pa R.C.P. Rule 2329 Action of Court on Petition
Pa R.C.P. Rule 2330 Practice

(iii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference. These provisions are not federally enforceable.

(A) The statutory provisions include:

Storage Tank and Spill Prevention Act of 1989, Public Law 169, No. 32

35 PS Section 6021.102 Definitions (insofar as the section addresses underground storage tanks; encompasses a broader range of regulated substances; and insofar as certain classes of tanks excluded or deferred under the federal definition of "underground storage tank" are not excluded or deferred under the state definition)

35 PS Section 6021.104 Powers and duties of Environmental Quality Board (insofar as it addresses underground storage tanks)

35 PS Section 6021.107 Powers and duties of department (insofar as paragraph (d) establishes the Department's duties regarding a certification program)

35 PS Section 6021.108 Interim certification of installers and inspectors (insofar as the section establishes a certification program for installers and inspectors)

35 PS Section 6021 Ch 3 Aboveground storage tanks (insofar as the Chapter regulates aboveground storage tanks)

35 PS Section 6021.501 Underground storage tank requirements (insofar as subparagraph (a)(1) requires payment of registration fees; subparagraph (a)(6) sets forth permitting requirements; subparagraph (a)(12) addresses permitting; subparagraph (a)(15) regulates handlers of regulated substances; and paragraph (c) establishes a certified installer and inspector program)

35 PS Section 6021.502 Interim requirements and discontinued use (insofar as paragraph (a) establishes interim registration fees; and subparagraph (b)(5) requires tanks to be installed by a certified installer)

35 PS Section 6021.503 Registration (insofar as paragraph (a) requires payment of registration fees; paragraph (b) regulates selling, distributing, depositing, or filling unregistered underground storage tanks; and paragraph (c) establishes uses for registration fees)

35 PS Section 6021.504 Permits and plans

35 PS Section 6021.506 Small operator assistance program for underground storage tanks

35 PS Section 6021.507 Reimbursement for testing

35 PS Section 6021.702 Storage Tank Fund (insofar as paragraph (a) addresses aboveground storage tanks)

35 PS Section 6021.704 Underground Storage Tank Indemnification Fund (insofar as subparagraph (e)(3) addresses payment of fees)

35 PS Section 6021.705 Powers and duties of Underground Storage Tank Indemnification Board (insofar as paragraphs (d) and (e) address payment of fees)

35 PS Section 6021 Ch 9 Spill Prevention Response Plan

35 PS Section 6021 Ch 11 Siting of New Aboveground Storage Tank Facility and Regulations

35 PS Section 6021.201 Start-up costs (insofar as it addresses aboveground storage tanks)

(B) The regulatory provisions include:

Pennsylvania Code, Chapter 245, Administration of the Storage Tank and Spill Prevention Programs

Section 245.1 Definitions (insofar as the section addresses aboveground storage tanks; insofar as it encompasses a broader range of regulated substances; and insofar as it includes individuals that are not regulated under the federal program under its definition of "responsible party")

Section 245.21 Tank handling and inspection requirements (insofar as the section imposes requirements on tank installers and addresses requirements for aboveground tanks)

Section 245.31 Underground storage tank tightness testing requirements (insofar as the paragraph (a) requires Department certification for underground tightness testing installers)

Ch 245, Subch. B Certification Program for Installers and Inspectors of Storage Tanks and Storage Tank Facilities (insofar as the Subchapter establishes a certification program)

Ch 245, Subch. C Permitting of Underground and Aboveground Storage Tank Systems and Facilities (insofar as the Subchapter establishes a permitting program)
Environmental Protection Agency

§ 282.89 Rhode Island State-Administered Program.

(a) The State of Rhode Island is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Rhode Island Department of Environmental Management, was approved by EPA pursuant to 42 U.S.C. 6991c and Part 281 of 40 CFR. EPA approved the Rhode Island program on January 11, 1993, and the approval was effective on February 10, 1993.

(b) Rhode Island has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under Sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Rhode Island must revise its approved program to adopt new changes to the federal Subtitle I program which make it more stringent, in accordance with Section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Rhode Island obtains approval for the revised requirements pursuant to Section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this
subpart and notice of any change will be published in the Federal Register.

(d) Rhode Island has final approval for the following elements submitted to EPA in Rhode Island’s program application for final approval and approved by EPA on January 11, 1995.

Copies may be obtained from the Underground Storage Tank Program, Rhode Island Department of Environmental Management, 291 Promenade Street, Providence, RI 02908. The elements are listed as follows:

(i) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Rhode Island Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(B) Rhode Island Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: Titles 46, 42, 38, 37, and 23 of the General Laws of Rhode Island, 1956, as amended.

(B) The regulatory provisions include: The State of Rhode Island Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials.

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Titles 46, 42, 38, 37, and 23 of the General Laws of Rhode Island, 1956, as amended, insofar as they refer to tanks less than or equal to 1,100 gallons containing motor fuels for non-commercial use; and for tanks containing heating oil consumed on the premises where stored.

(ii) Letter from the Attorney General of Rhode Island to EPA July 1, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(iii) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application in July 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(iv) Program description. The program description and any other material submitted as part of the original application in July 1992, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(v) Memorandum of Agreement. On October 19, 1992, EPA and the Rhode Island Department of Environmental Management signed the Memorandum of Agreement. Though not incorporated by reference, the Memorandum of Agreement is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.90 [Reserved]

§ 282.91 South Dakota State-Administered Program.

(a) The State of South Dakota is approved to administer and enforce an underground storage tank program in
lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the South Dakota Department of Environment and Natural Resources, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the South Dakota program on March 16, 1995 and it was effective on May 15, 1995.

(b) South Dakota has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, South Dakota must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If South Dakota obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) South Dakota has final approval for the following elements submitted to EPA in South Dakota’s program application for final approval and approved by EPA on [insert date of publication]. Copies may be obtained from the Underground Storage Tank Program, South Dakota Department of Environment and Natural Resources, 523 East Capitol, Pierre, South Dakota 57501.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) South Dakota Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: South Dakota Codified Law, Water Pollution Control, Chapter 34A–2, Sections 46 and 48, Sections 72 through 73, Chapters 34A–10 and 34A–12.

(iii) The following statutory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) South Dakota statutes Annotated, Chapter 34A–2, Section 100, insofar as it applies to above ground stationary storage tanks, Section 102, insofar as it applies to installation of above ground stationary storage tanks, Section 101, insofar as it applies to corrective action for above ground stationary storage tanks.

(2) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval”, signed by the Attorney General of South Dakota on June 17, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of South Dakota to EPA, June 17, 1992, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the complete application in October 1993, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in June 1992, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
§ 282.92 Tennessee State-Administered Program.

(a) The State of Tennessee is approved to administer and enforce a petroleum underground storage tank program in lieu of the Federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Tennessee Department of Environment and Conservation, Division of Underground Storage Tanks, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Tennessee program on November 17, 1998 and it was effective on January 19, 1999.

(b) Tennessee has primary responsibility for enforcing its petroleum underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions. EPA also retains all authority to operate the hazardous substance underground storage tank program.

(c) To retain program approval, Tennessee must revise its approved program to adopt new changes to the Federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Tennessee obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Tennessee has final approval for the following elements submitted to EPA in the State’s program application for final approval and approved by EPA on November 17, 1998. Copies may be obtained from the Underground Storage Tank Program, Tennessee Department of Environment and Conservation, Division of Underground Storage Tanks, 4th Floor, L&C Tower, 401 Church Street, Nashville, Tennessee 37243–1541.

(1) State statutes and regulations.

(i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Tennessee Regulatory Requirements Applicable to the Underground Storage Tank Program, 1998.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(J) General Statutes of Tennessee, Chapter 215—Tennessee Petroleum Underground Storage Tank Act:

Section 68–215–107 Supervision, inspection, and enforcement responsibilities

Section 68–215–114 Order for correction—Liability

Section 68–215–116 Failure to take proper action

Section 68–215–119 Review of orders and revocations

Section 68–215–120 Criminal penalties—Suspension of certificates

Section 68–215–121 Civil penalty—Assessment

Section 68–215–122 Injunctions

(B) The regulatory provisions include:

(J) Tennessee Department of Environment and Conservation, Underground Storage Tank Program Rules, Chapter 1200–1–15: Not applicable.

(iii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(J) Tennessee Code Annotated, Title 68, Chapter 215:
Environmental Protection Agency

Section 68–215–102(a)(3) [Insofar as it refers to the intent to develop long range plans to meet future petroleum underground storage tank demands.]
Section 68–215–102(a)(5) [Insofar as it provides for a cleanup fund.]
Section 68–215–104 [Insofar as it applies to persons other than underground storage tank owners or operators.]
Section 68–215–106(a)(6) [Insofar as it requires any person who deposits petroleum in underground storage tanks to notify the owner or operator of state notification requirements.]
Section 68–215–106(c)(2) [Insofar as it applies to persons other than owners and operators placing petroleum substances in an underground storage tank.]
Section 68–215–107(f)(9) [Insofar as it requires underground storage tank fees, use, collection and failure to pay penalties, and fee notices.]
Section 68–215–111 [Insofar as it refers to uses of the state underground storage tank fund.]
Section 68–215–112 [Insofar as it established a petroleum underground storage tank board.]
Section 68–215–113 [Insofar as it established board meeting, public hearing, and board compensation.]
Section 68–215–115 [Insofar as it establishes cost recovery and apportionment of liability for cleanups.]
Section 68–215–117 [Insofar as it applies to persons other than underground storage tank owners and operators.]
Section 68–215–125 [Insofar as it applies to the state underground storage tank fund.]
Section 68–215–128 [Insofar as it requires a report to the General Assembly.]

(B) The regulatory provisions include:

(1) Statement of legal authority. “Attorney General’s Statement of ‘No Less Stringent’ Requirements and ‘Adequate Enforcement’ Authorities Implementing Underground Storage Tank Program” signed by the State Attorney General on June 3, 1996, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(2) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application on September 1, 1996, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Program description. The program description and any other material submitted as part of the original application on September 1, 1996, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 4 and the Tennessee Department of Environment and Conservation, Division of Underground Storage Tanks, signed by the EPA Regional Administrator on July 1, 1998, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

§ 282.93 Texas State-Administered Program.

(a) The State of Texas is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Texas Natural Resource Conservation Commission, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Texas program on March 7, 1995 and it was effective on April 17, 1995.
(b) Texas has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Texas must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Texas obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Texas has final approval for the following elements submitted to EPA in Texas’ program application for final approval and approved by EPA on March 7, 1995. Copies may be obtained from the Underground Storage Tank Program, Texas Natural Resource Conservation Commission, P.O. Box 13087, Austin, TX 78711–3087.

(i) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(A) Texas Statutory Requirements Applicable to the Underground Storage Tank Program, 1995

(B) Texas Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:

(i) Texas Water Code, Title 2, Subtitle D, Chapter 26—State Water Administration.

(ii) Subchapter C: Water Rights Enforcement.
Environmental Protection Agency § 282.93

(3) 31 Texas Administrative Code, Chapter 265—Procedures Before Public Hearing.

§ 265.1 Initial Pleadings
§ 265.2 Executive Director Forwards Initial Pleadings to the Commission
§ 265.3 Acceptance for Filing
§ 265.4 Affidavit of Publication
§ 265.5 Effect of Failure to Furnish Affidavit
§ 265.6 Conference Before Hearing
§ 265.7 Recordation of Conference Action
§ 265.8 Prefiled Testimony and Exhibits
§ 265.9 Written Protest
§ 265.10 Discovery
§ 265.11 Forms of Discovery
§ 265.12 Scope of Discovery
§ 265.13 Exceptions
§ 265.14 Protective Orders
§ 265.15 Duty to Supplement
§ 265.16 Discovery of Documents and Things
§ 265.17 Interrogatories to Parties
§ 265.18 Admission of Facts and Genuineness of Document
§ 265.19 Requests for Information
§ 265.20 Sanctions for Failure to Comply with Discovery Ruling

(4) 31 Texas Administrative Code, Chapter 267—Procedures During Public Hearing.

§ 267.1 Designation of Parties
§ 267.2 Statutory Parties
§ 267.3 Rights of Parties at the Hearing
§ 267.4 Persons Not Parties
§ 267.5 Effect of Postponement
§ 267.6 Furnishing Copies of Pleadings
§ 267.7 Conference During Hearing
§ 267.8 Recordation of Hearing Conference Action
§ 267.9 Agreements to be in Writing
§ 267.10 Rulings in Commission Evidentiary Hearings
§ 267.11 Order of Presentation
§ 267.12 Alignment of Participants
§ 267.13 General Admissibility of Evidence
§ 267.14 Objections
§ 267.15 Interlocutory Appeals
§ 267.16 Cross-Examination of Witnesses
§ 267.17 Stipulation
§ 267.18 Exhibits
§ 267.19 Copies of Exhibits
§ 267.20 Abstracts of Documents
§ 267.21 Excluding Exhibits
§ 267.22 Official Notice
§ 267.23 Parties to be Informed of Material Officially Noticed
§ 267.24 Continuance
§ 267.25 Oral Argument
§ 267.26 Submittal of Findings of Fact and Conclusions of Law

(5) 31 Texas Administrative Code, Chapter 273—Procedures After Final Decision.

§ 273.1 Motion for Rehearing
§ 273.2 Reply to Motion for Rehearing
§ 273.3 Granting of Motion for Rehearing
§ 273.4 Modification of Time Limits
§ 273.5 Decision Final and Appealable
§ 273.6 Appeal
§ 273.7 The Record
§ 273.8 Costs of Record on Appeal

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Texas Water Code, Title 2, Subtitle D, Chapter 26—State Water Administration.

(J) Subchapter I: Underground and Aboveground Storage Tanks.

§ 26.341 Purpose (Insofar as it applies to aboveground storage tanks.)
§ 26.342 Definitions (Insofar as (10) and (12) apply to aboveground storage tanks.)
§ 26.344 Exemptions (Insofar as (a), (d), and (f) apply to aboveground storage tanks.)
§ 26.3441 Aboveground Storage Tanks (Insofar as it applies to aboveground storage tanks.)
§ 26.345 Administrative Provisions (Insofar as (a) and (e) apply to aboveground storage tanks.)
§ 26.346 Registration Requirements (Insofar as it applies to aboveground storage tanks.)
§ 26.349 Reporting of Releases and Corrective Action (Insofar as it applies to aboveground storage tanks.)
§ 26.351 Corrective Action (Insofar as it applies to aboveground storage tanks.)
§ 26.3511 Corrective Action by the Commission (Insofar as it applies to aboveground storage tanks.)
§ 26.3514 Limits on Liability of Lender (Insofar as it applies to aboveground storage tanks.)
§ 26.3515 Limits on Liability of Corporate Fiduciary (Insofar as it applies to aboveground storage tanks.)
§ 26.355 Recovery of Costs (Insofar as it applies to aboveground storage tanks.)
§ 26.358 Storage Tank Fund; Fees (Insofar as it applies to aboveground storage tanks.)

(B) 31 Texas Administrative Code, Chapter 334—Underground and Aboveground Storage Tanks.

(i) Insofar as § 334.1(a)(1), (c), and (d)(2) apply to aboveground storage tanks.

(ii) Insofar as § 334.3(b) applies release reporting and corrective action requirements to certain hydraulic lift
tanks that are exempt under the federal program.

(iii) Insofar as §334.4 does not exclude airport hydrant fuel distribution systems and UST systems with field-constructed tanks; excludes only sumps less than 110 gallons, as opposed to all tanks; and does not provide a release detection deferral for UST systems that store fuel solely for use by emergency power generators.

(iv) Insofar as §334.4 subjects wastewater treatment tank systems that are deferred in the federal rules to the registration, general operating requirements, and corrective action requirements.

(v) Insofar as §334.4 requires USTs that store radioactive substances or are part of a nuclear power plant to comply with registration and general operating requirements.

(vi) Insofar as §334.4 applies release reporting and corrective action requirements to certain hydraulic lift tanks that are exempt under the federal program.

(2) Subchapter F: Aboveground Storage Tanks (Insofar as it applies to aboveground storage tanks)

§334.121 Purpose and Applicability
§334.122 Definitions
§334.123 Statutory Exemptions
§334.124 Commission Exclusions
§334.125 General Prohibitions and Requirements
§334.126 Installation Notification
§334.127 Registration
§334.128 Annual Facility Fees
§334.129 Release Reporting and Corrective Action
§334.130 Reporting and Recordkeeping
§334.131 Enforcement
§334.132 Other General Provisions

(3) Subchapter I: Underground Storage Tank Contractor Certification and Installer Licensing (Insofar as it applies to individuals other than UST owners and operators)

§334.401 Certificate of Registration for UST Contractor
§334.402 Application for Certificate of Registration
§334.403 Issuance of Certificate of Registration
§334.404 Renewal of Certificate of Registration
§334.405 Denial of Certificate of Registration
§334.406 Fee Assessments for Certificate of Registration

§334.407 Other Requirements
§334.408 Exception to Registration Requirements
§334.409 Revocation, Suspension or Reinstatement of Certificate of Registration and License
§334.410 Notice of Hearings
§334.411 Type of Hearing
§334.412 Subchapter I Definitions
§334.413 License for Installers and On-Site Supervisors
§334.414 License for Installers and On-Site Supervisors
§334.415 License A and License B
§334.416 Requirements for Issuance of License A and License B
§334.417 Application for License A and License B
§334.418 Notification of Examination
§334.419 License A and License B Examination
§334.420 Issuance of License A or License B
§334.421 Renewal of License
§334.422 Denial of License A or License B
§334.423 Fees Assessments for License A and License B
§334.424 Other Requirements for a License A and License B
§334.425 Exceptions to License A and License B Requirements
§334.426 Revocation, Suspension, or Reinstatement of a License A and License B
§334.427 Notice of Hearings
§334.428 Type of Hearing

(4) Subchapter J: Registration of Corrective Action Specialists and Project Managers for Product Storage Tank Remediation Projects (Insofar as it applies to individuals other than UST owners and operators)

§334.451 Applicability of Subchapter J
§334.452 Exemptions from Subchapter J
§334.453 General Requirements and Prohibitions
§334.454 Exception for Emergency Abatement Actions
§334.455 Notice to Owner or Operator
§334.456 Application for Certificate of Registration for Corrective Action Specialist
§334.457 Application for Certificate of Registration for Corrective Action Project Manager
§334.458 Review and Issuance of Certificates of Registration
§334.459 Continuing Education Requirements for Corrective Action Project Managers
§334.460 Renewal of Certificate of Registration for Corrective Action Specialist and Corrective Action Project Manager
§334.461 Denial of Certificate of Registration
§334.462 Other Requirements
§334.463 Grounds for Revocation or Suspension of Certificate of Registration
Environmental Protection Agency

§ 282.94 Utah State-Administered Program.

(a) The State of Utah is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Utah Department of Environmental Quality, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Utah program on March 8, 1995 and it was effective on April 7, 1995.

(b) Utah has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(c) To retain program approval, Utah must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991d and 40 CFR part 281, subpart E. If Utah obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991d, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) Utah has final approval for the following elements submitted to EPA in Utah’s program application for final approval and approved by EPA on March 8, 1995. Copies may be obtained from the Underground Storage Tank Branch, Utah Department of Environmental Quality, 168 North 1950 West, 1st Floor, Salt Lake City, Utah 84116.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Utah Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(i) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include: Utah Code Unannotated (1994), Title 19, Chapter 6, Sections 19–6–112; 19–6–113;
§ 282.95 Vermont State-Administered Program.

(a) The State of Vermont is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Vermont Department of Environmental Conservation, was approved by EPA pursuant to 42 U.S.C. 6991c and 40 CFR part 281. EPA approved the Vermont program on January 3, 1992, and the approval was effective on February 3, 1992.

(b) Vermont has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under Sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Utah to EPA, April 18, 1994, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
(c) To retain program approval, Vermont must revise its approved program to adopt new changes to the federal Subtitle I program which make it more stringent, in accordance with Section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Vermont obtains approval for the revised requirements pursuant to Section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this Subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Vermont has final approval for the following elements submitted to EPA in Vermont’s program application for final approval and approved by EPA on January 3, 1992. Copies may be obtained from the Underground Storage Tank Program, Vermont Department of Environmental Conservation, 103 South Main Street, West Building, Waterbury, VT 05671-0404.

(i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Vermont Regulatory Requirements Applicable to the Underground Storage Tank Program, 1995.

(ii) The following statutes and regulations are part of the approved state program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:
Title 10 Vermont Statutes Annotated, Chapter 59, Sections 1931 through 1935.

(B) The regulatory provisions include:
Vermont Environmental Protection Rules, Chapter 8, Sections 104 through 106.

(iii) The following statutory and regulatory provisions are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) Title 10 Vermont Statutes Annotated, Chapter 59, Section 1929, insofar as it refers to registration requirements for tanks greater than 1,100 gallons containing heating oil consumed on the premises where stored.

(B) Vermont Environmental Protection Rules, Chapter 8, Section 301, registration requirements, and Section 605(2), permanent closure requirements, insofar as they refer to tanks greater than 1,100 gallons containing heating oil consumed on the premises where stored.

(ii) Statement of legal authority. (i) “Attorney General’s Statement for Final Approval,” signed by the Attorney General of Vermont on April 11, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Vermont to EPA, April 11, 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the original application in May 1991, though not incorporated by reference, is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the original application in May 1991, though not incorporated by reference, are referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. On March 2, 1992, EPA and the Vermont Department of Environmental Conservation signed the Memorandum of Agreement. Though not incorporated by reference, the Memorandum of Agreement is referenced as part of the approved underground storage tank program under Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[60 FR 47301, Sept. 12, 1995]
§ 282.96 Virginia State-Administered Program.

(a) The State of Virginia’s underground storage tank program is approved in lieu of the Federal program in accordance with Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State’s program, as administered by the Virginia Department of Environmental Quality, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the Virginia underground storage tank program on September 28, 1998, and approval was effective on October 28, 1998.

(b) Virginia has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 9005 and 9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) To retain program approval, Virginia must revise its approved program to adopt new changes to the Federal Subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If Virginia obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) Virginia has final approval for the following elements submitted to EPA in the State’s program application for final approval. On September 28, 1998, EPA published notice of approval of the State’s program in the FEDERAL REGISTER, 63 FR 51528. That approval became effective on October 28, 1998. Copies of Virginia’s program application, with the exception of the provisions cited in paragraphs (d)(1)(ii) and (iii) of this section, are incorporated by reference as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Virginia Regulatory Requirements Applicable to the Underground Storage Tank Program, 1998.

(ii) EPA considered the following statutes in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include:

(1) Code of Virginia, Title 10.1, Subtitle II, Chapter 11.1: Department of Environmental Quality, Article 1: General Provisions

Section 10.1-1186 General powers of the department

(2) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law, Article 2: Control Board Generally

Section 62.1-44.14 Chairman; Executive Director; employment of personnel; supervision; budget preparation

Section 62.1-44.15 Powers and duties

(3) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law, Article 5: Enforcement and Appeal Procedure

Section 62.1-44.20 Right to entry to obtain information

Section 62.1-44.21 Information to be furnished to Board

Section 62.1-44.22 Private rights not affected

Section 62.1-44.23 Enforcement by injunction

Section 62.1-44.24 Intervention of Commonwealth in actions involving surface water withdrawals

Section 62.1-44.25 Testing validity of regulations; judicial review

Section 62.1-44.26 Hearings

Section 62.1-44.27 Rules of evidence in hearings

Section 62.1-44.28 Decisions of the Board in hearings pursuant to §62.1-44.15 and 62.1-44.25

Section 62.1-44.29 Judicial review

Section 62.1-44.30 Appeal to Court of Appeals
§ 282.98

West Virginia State-Administered Program.

(a) The State of West Virginia's underground storage tank program is approved in lieu of the Federal program in accordance with Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The State's program, as administered by the West Virginia Department of Environmental Protection, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this chapter. EPA approved the West Virginia underground storage tank program on September 23, 1997, and approval was effective on February 10, 1998.

(b) West Virginia has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities in accordance with sections 9005 and 

(4) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law, Article 6: Offenses and Penalties

Section 62.1-44.31 Violation of special order or certificate or failure to cooperate with Board

Section 62.1-44.32 Penalties

(iii) The following statutory and regulatory provisions are broader in scope than the Federal program, are not part of the approved program, and are not incorporated by reference. These provisions are not federally enforceable.

(A) The statutory provisions include:

(1) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law

Section 62.1-44.34 Definitions, ''Aboveground storage tank'' and ''Regulated substance''

(2) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law, Article 10: Petroleum Storage Tank Fund

Section 62.1-44.34.10 Definitions, ''Aboveground storage tank'' and ''Regulated substance''

Section 62.1-44.34.13 Levy of fee for Fund maintenance

(B) The regulatory provisions include Virginia Administrative Code, Title 9, Agency 25: State Water Control Board, Chapter 580: Underground Storage Tanks—Technical Standards and Corrective Action Requirements

9 VAC 25-580-10 Definitions, ''Underground storage tank'' includes heating oil tanks of greater than 5,000 gallon capacity and ''Regulated substance''

9 VAC 25-580-130 General requirements for all petroleum and hazardous substance UST systems, heating oil tanks of greater than 5,000 gallon capacity

9 VAC 25-580-290 Corrective action plan (CAP) permit

(2) Statement of legal authority. (i) "Attorney General’s Statement," signed by the State Attorney General on July 14, 1998, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(ii) Letter from the Attorney General of Virginia to EPA, July 14, 1998, though not incorporated by reference, is referenced as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.
9006 of Subtitle I of RCRA, 42 U.S.C. 6991d and 6991e, regardless of whether the State has taken its own actions, as well as in accordance with other statutory and regulatory provisions.

(c) To retain program approval, West Virginia must revise its approved program to adopt new changes to the Federal Subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If West Virginia obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the Federal Register.

(d) West Virginia has final approval for the following elements submitted to EPA in the State's program application for final approval. On September 23, 1997, EPA published notice of approval of the State's program in the Federal Register, 62 FR 49620. That approval became effective on February 10, 1998 (63 FR 6667). Copies of West Virginia's program application may be obtained from the West Virginia Department of Environmental Protection, 1356 Hansford Street, Charleston, WV 25301–1401.

(1) State statutes and regulations. (i) The provisions cited in this paragraph, with the exception of the provisions cited in paragraphs (d)(1)(ii) and (iii) of this section, are incorporated by reference as part of the approved underground storage tank program in accordance with Subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) West Virginia Regulatory Requirements Applicable to the Underground Storage Tank Program, 1997.

(ii) EPA considered the following statutes in evaluating the State program, but did not incorporate them by reference.

(A) The statutory provisions include:

(1) Code of West Virginia, Article 17: Underground Storage Tanks

(B) The regulatory provisions include:

(1) West Virginia Code of State Regulations, Title 33: Office of Waste Management Rule, Series 30: Underground Storage Tanks

(2) West Virginia Code of State Regulations, Title 33: Office of Waste Management Rule, Series 31: Underground Storage Tank Fee Assessments
Environmental Protection Agency

§ 282.102

(a) The Commonwealth of Puerto Rico is approved to administer and enforce an underground storage tank program in lieu of the federal program under subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6991 et seq. The Commonwealth’s program, as administered by the Commonwealth of Puerto Rico Environmental Quality Board, is approved by EPA pursuant to 42 U.S.C. 6991c and Part 281 of this chapter. EPA is publishing the notice of final determination on the approved Commonwealth of Puerto Rico underground storage tank program concurrently with this notice and it will be effective on March 31, 1998.

(b) The Commonwealth of Puerto Rico has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its corrective action, inspection and enforcement authorities under sections 9003(h)(1), 9005 and 9006 of subtitle I of RCRA, 42 U.S.C. 6991b(h)(1), 6991d and 6991e, as well as its authority under other statutory and regulatory provisions.

(c) To retain program approval, the Commonwealth of Puerto Rico must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 U.S.C. 6991c, and 40 CFR part 281, subpart E. If the Commonwealth obtains approval for the revised requirements pursuant to section 9004 of RCRA, 42 U.S.C. 6991c, the newly approved statutory and regulatory provisions will be added to this subpart and notice of any change will be published in the FEDERAL REGISTER.

(d) The Commonwealth of Puerto Rico has final approval for the following elements submitted to EPA in its program application for final approval and to be published in the FEDERAL REGISTER concurrently with this notice, and to be effective on March 31, 1998. Copies may be obtained from the Underground Storage Tank Program, Puerto Rico Environmental Quality Board, 431 Ponce De Leon Avenue, Nacional Plaza, Suite 614, Hato Rey, PR 00917, Phone: (787) 767–8109.

(1) State statutes and regulations. (i) The provisions cited in this paragraph are incorporated by reference as part of the underground storage tank program.
under subtitle I of RCRA, 42 U.S.C. 6991 et seq.


(B) Puerto Rico Regulatory Requirements Applicable to the Underground Storage Tank Program, 1997.

(ii) The following specifically identified sections and rules in the Commonwealth of Puerto Rico’s statutes, regulations and rules are part of the approved Commonwealth program, although not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:


(ii) Section 1131 Functions and duties [Insofar as paragraph (13) addresses permit and license requirements and associated fees, as well as the NPDES and UIC programs; and paragraph (34) relates solely to the solid and hazardous waste programs.]

(ii) Section 1134 Hearings, orders and judicial proceedings

(iv) Section 1138 Effectiveness of previous documents [Insofar as it addresses permit and licensing requirements.]

(B) The regulatory provisions include:

(1) Underground Storage Tank Control Regulations, Regulation Number 4362, promulgated by the Commonwealth of Puerto Rico Environmental Quality Board on November 7, 1990.

(ii) Part VI—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances: Rule 603—Initial Abatement Measures and Site Check [Insofar as 603(A)(5) requires owners and operators to obtain permits or franchises for drilling and installation of groundwater monitoring and/or extraction wells.]; Rule 605—Free Product Removal [Insofar as 605(A) and 605(D)(6) require owners and operators to obtain permits or franchises for drilling and installation of water monitoring and/or extraction wells.].

(ii) Part XII—Fee Rules [Insofar as fees are broader in scope than the federal program.]; Rule 1201—Applicability; Rule 1202—Annual Notification Fees; Rule 1203—Fee Relative to Transfer of Ownership; Rule 1204—Fees for Duplication of Records; Rule 1205—Fees for Annual Re-certification of UST Facilities.

(B) The regulatory provisions include:

(2) Puerto Rico Environmental Emergency Fund Act, 12 L.P.R.A. §1269 et seq.

(ii) Part X—General Provisions.

(iii) Rule 1006 Right of Entry

(iv) Rule 1007 Notice of Violation and Compliance Order

(iii) Rule 1008 Closure of an Underground Storage Tank

(iv) Rule 1010 Penalties

(C) Other provisions include:

(i) Puerto Rico Civil Procedure Rules of 1979, 32 L.P.R.A. Appendix III


(iii) The following specifically identified sections and rules in the Commonwealth of Puerto Rico’s statutes, regulations and rules are broader in scope than the federal program, are not part of the approved program, and are not incorporated by reference herein for enforcement purposes.

(A) The statutory provisions include:


(i) Section 1131—Functions and duties [Insofar as paragraph (13) addresses permit and license requirements and associated fees, as well as the NPDES and UIC programs; and paragraph (34) relates solely to the solid and hazardous waste programs.]

(ii) Section 1132—Transfer of powers

(iii) Section 1135—Character of Board for federal purposes [Insofar as it addresses permit requirements.]

(iv) Section 1138—Effectiveness of previous documents [Insofar as it addresses permit and licensing requirements.]

(B) The regulatory provisions include:

(1) Underground Storage Tank Control Regulations, Regulation Number 4362, promulgated by the Commonwealth of Puerto Rico Environmental Quality Board on November 7, 1990.

(i) Part VI—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances: Rule 603—Initial Abatement Measures and Site Check [Insofar as 603(A)(5) requires owners and operators to obtain permits or franchises for drilling and installation of groundwater monitoring and/or extraction wells.]; Rule 605—Free Product Removal [Insofar as 605(A) and 605(D)(6) require owners and operators to obtain permits or franchises for drilling and installation of water monitoring and/or extraction wells.].

(ii) Part XII—Fee Rules [Insofar as fees are broader in scope than the federal program.]; Rule 1201—Applicability; Rule 1202—Annual Notification Fees; Rule 1203—Fee Relative to Transfer of Ownership; Rule 1204—Fees for Duplication of Records; Rule 1205—Fees for Annual Re-certification of UST Facilities.
(2) Statement of legal authority. The Attorney General Statement, a letter signed on July 2, 1997, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(3) Demonstration of procedures for adequate enforcement. The “Demonstration of Procedures for Adequate Enforcement” submitted as part of the application for approval on January 17, 1996, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(4) Program description. The program description and any other material submitted as part of the application on January 17, 1996 and supplemented on April 17, 1997, though not incorporated by reference, are referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 2 and the Puerto Rico Environmental Quality Board, signed by an authorized representative of the Environmental Quality Board on March 7, 1997 and subsequently by an authorized representative of EPA, though not incorporated by reference, is referenced as part of the approved underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 et seq.

[63 FR 4593, Jan. 30, 1998]

§§ 282.103–282.105 [Reserved]

APPENDIX A TO PART 282—STATE REQUIREMENTS INCORPORATED BY REFERENCE IN PART 282 OF THE CODE OF FEDERAL REGULATIONS

The following is an informational listing of the state requirements incorporated by reference in part 282 of the Code of Federal Regulations:

Alabama

The statutory provisions include Code of Alabama 1975, Title 22, Chapter 36, Underground Tank and Wellhead Protection Act:

Section 1 Short title.
Section 2 Definitions.
Section 3 Rules and regulations governing underground storage tanks.

Section 4 Information to be furnished by owner upon request of department; owner to permit access to records and entry and inspection of facilities.

Section 5 Expenditure of funds from leaking underground storage tank trust fund; investigative and corrective powers in regard to administration of funds; liability of owner or operator for costs.

Section 6 Availability to public of records, reports, or information obtained under chapter.

Section 7 Rules and regulations.


Section .01 Purpose.
Section .02 Definitions.
Section .03 Applicability.
Section .04 Interim Prohibition for Deferred UST Systems.
Section .05 Notification, except those USTs taken out of operation on or before January 1, 1974.

Section .06 Performance Standards for New UST Systems.
Section .07 Upgrading of Existing UST Systems.
Section .08 Plans and Specifications.
Section .09 Spill and Overfill Control.
Section .10 Operation and Maintenance of Corrosion Protection.
Section .11 Compatibility.
Section .12 Repairs Allowed.
Section .13 Reporting and Recordkeeping.
Section .15 Release Detection Requirements for Petroleum UST Systems.
Section .16 Release Detection Requirements for Hazardous Substance UST Systems.
Section .17 Methods of Release Detection for Tanks.
Section .18 Methods of Release Detection for Pipes.
Section .19 Release Detection Recordkeeping.
Section .20 Reporting of Suspected Releases.
Section .21 Investigation Due to Environmental Impact.
Section .22 Release Investigation and Confirmation Steps.
Section .23 Reporting and Clean-up of Spills and Overfills.
Section .24 Initial Release Response.
Section .25 Initial Abatement Measures and Preliminary Investigation.
Section .26 Preliminary Investigation Requirements.

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Arkansas

(a) The statutory provisions include:

1. Arkansas Code Annotated, Title 8, Chapter 7, Subchapter 8—Regulated Substance Storage Tanks:
   Section 8-7-801 Definitions and exceptions
   Section 8-7-803 Regulations generally
   Section 8-7-804 Procedures of department generally
   Section 8-7-807 Responsibility and liability of owner
   Section 8-7-808 Regulated Substance Storage Tank Program Fund
   Section 8-7-810 Insurance pools
   Section 8-7-811 Trade secrets
   Section 8-7-812 Subchapter controlling over other laws
   Section 8-7-813 Registration

2. Arkansas Code Annotated, Title 8, Chapter 7, Subchapter 9—Petroleum Storage Tank Trust Fund Act:
   Section 8-7-901 Title
   Section 8-7-902 Definitions
   Section 8-7-903 Rules and Regulations—Powers of department (Except (c), which addresses aboveground storage tanks.)
   Section 8-7-904 Advisory committee
   Section 8-7-905 Petroleum Storage Tank Trust Fund
   Section 8-7-906 Petroleum environmental assurance fee
   Section 8-7-907 Payments for corrective action
   Section 8-7-908 Third-party claims
   Section 8-7-909 Confidential treatment of information

(b) The regulatory provisions include:

1. Arkansas Department of Pollution Control and Ecology Regulation Number 12—Storage Tank Regulation:
   a. Chapter 1: General Provisions
      Section 1: Purpose
      Section 2: Authority
      Section 3: Short Title
      Section 1: Incorporation of Federal Regulations
      Section 2: Arkansas Petroleum Storage Tank Trust Fund Act
      Section 3: Definitions
   c. Chapter 3: Fees
      Section 1: Underground and Aboveground Storage Tank Registration Fees (Except insofar as it applies to aboveground storage tanks.)
      Section 2: Underground Storage Tank Licensing Fees
      Section 3: Late Payment Penalties
      Section 4: Refusal or Failure to Pay Fees
   d. Chapter 4: Petroleum Storage Tank Trust Fund Release Reimbursement
      Section 1: Purpose
      Section 2: Amount of Reimbursement
      Section 3: Initial Fund Eligibility
      Section 4: Loss and Restoration of Initial Fund Eligibility
      Section 5: Corrective Action Reimbursement Procedure
      Section 6: Reimbursement Application Review
      Section 7: Allowable Costs
      Section 8: Reasonable Costs
      Section 9: Audits
      Section 10: Deductible
      Section 11: Third Party Claim Reimbursement Procedure
      Section 12: Compliance
      Section 13: Fund Availability
      Section 14: Cost Recovery
   e. Chapter 7: Confidentiality
      Section 1: Confidentiality Requests
      Section 2: Responsibility
      Section 3: Submission Procedure
      Section 4: Requirements for Protection
      Section 5: Acceptability of Information
      Section 6: Security
   f. Chapter 9: Severability
   g. Chapter 10: Effective Date

Connecticut

(a) The statutory provisions include Connecticut's General Statutes, Chapter 446k, Section 22a-449(d), Duties and Powers of Commissioner, January 1, 1995.

(b) The regulatory provisions include Regulations of Connecticut State Agencies ("R.C.S.A.") Sections 22a-449(d)-101 through 113, Underground Storage Tank System Management, July 26, 1994.
Section 22a–449(d)–101 Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks—Program Scope and Interim Prohibition
(a) Applicability of Sections 22a–449(d)–101 through 22a–449(d)–113.
(b) Interim Prohibition for deferred UST systems.
(c) General.
(d) Definition.
Section 22a–449(d)–102 UST Systems: Design, Construction, Installation, and Notification
(a) Performance standards for new UST systems.
(b) Notification Requirements.
Section 22a–449(d)–103 General Operating Requirements
(a) Spill and overflow control.
(b) Operating and maintenance of corrosion protection.
(c) Compatibility.
(d) Repairs allowed.
(e) Reporting and recordkeeping.
Section 22a–449(d)–104 Release Detection
(a) General requirements for all UST systems.
(b) Additional requirements.
(c) Requirements for petroleum UST systems.
(d) Requirements for hazardous substance UST systems.
(e) Methods of release detection for tanks.
(f) Methods of release detection for piping.
(g) Release detection recordkeeping.
Section 22a–449(d)–105 Release Reporting, Investigation, and Confirmation
(a) Reporting of suspected releases.
(b) Investigation due to off-site impacts.
(c) Release investigation and confirmation steps.
(d) Reporting and cleanup of spills and overfills.
Section 22a–449(d)–106 Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances
(a) General.
(b) Additional requirements.
(c) Initial response.
(d) Initial abatement measures and site check.
(e) Initial site characterization.
(f) Free product removal.
(g) Investigations for soil and groundwater cleanup.
(h) Corrective action plan.
Section 22a–449(d)–107 Out-of-service UST Systems and Closure
(a) Temporary closure.
(b) Permanent closure.
(c) Assessing the site at closure.
(d) Applicability to previously closed UST systems.
(e) Closure records.
Section 22a–449(d)–108 Reserved
Section 22a–449(d)–109 Financial Responsibility
(a) Applicability.
(b) Compliance dates.
(c) Definition of terms.
(d) Amount and scope of required financial responsibility.
(e) Allowable mechanisms and combinations of mechanisms.
(g) Guarantee.
(h) Insurance risk retention group coverage.
(i) Surety bond.
(j) Letter of credit.
(k) Use of state-required mechanism.
(l) State fund and other state assurance.
(m) Trust fund.
(n) Standby trust fund.
(o) Substitution of financial assurance mechanisms by owner or operator.
(p) Cancellation or non-renewal by a provider of financial assurance.
(q) Reporting by owner or operator.
(r) Record keeping.
(s) Drawing of financial assurance mechanisms.
(t) Release from the requirements.
(u) Bankruptcy or other incapacity of owner or operator or provider of financial assurance.
(v) Replenishment of guarantees, letters of credit, or surety bonds.
(w) Suspension of enforcement. [Reserved]
(x) 40 CFR Part 280 Appendix I is incorporated by reference, in its entirety.
(z) Appendix III to 40 CFR Part 280—Statement for Shipping Tickets and Invoices.
Section 22a–449(d)–110 UST system upgrading, abandonment and removal date
(a) Petroleum UST system of which construction or installation began prior to November 1, 1985.
(b) Hazardous substance UST system of which construction or installation began prior to December 22, 1988.
(c) UST systems which comply with the standards specified in subsection 22a–449(d)–102(a) of these regulations.
Section 22a–449(d)–111 Life Expectancy
(a) How life expectancy determinations shall be conducted.
(b) Life expectancy shall be as follows:
(c) The life expectancy of an UST system component.
Section 22a–449(d)–112 UST System Location Transfer
Section 22a–449(d)–113 Transfer of UST System Ownership, Possession, or Control
(a) Disclosure to transferee.
(b) Information submitted to the commissioner pursuant to section 22a–449(d)–102 of these regulations.
Georgia

(a) The statutory provisions include the Georgia Underground Storage Tank Act (GUSTA) (O.C.G.A. Section 12–13–1, et seq.):
Section 12–13–2—Public policy.
Section 12–13–3—Definitions.
Section 12–13–4—Exceptions to chapter.
Section 12–13–5—Rules and regulations; enforcement powers.
Section 12–13–6—Powers and duties of director.
Section 12–13–7—Performance standards applicable until rules and regulations effective.
Section 12–13–8—Investigations.
Section 12–13–9—Establishing financial responsibility; claims against guarantor; Underground storage Trust Fund.
Section 12–13–10—Environmental assurance fees.
Section 12–13–11—Corrective action for release of petroleum product into environment.
Section 12–13–12—Recovery in event of discharge or threat of discharge of regulated substance.
Section 12–13–13—Notice by owner of underground storage tank.
Section 12–13–14—Corrective action for violations of chapter, rules, etc., and for release of regulated substance into environment.
Section 12–13–15—Injunctions and restraining orders.
Section 12–13–16—Hearings and review.
Section 12–13–17—Judgement by superior court.
Section 12–13–18—Required compliance with chapter; proof that petroleum subjected to environmental fee.
Section 12–13–19—Violations; imposition of penalties.
Section 12–13–20—Action in emergencies.
Section 12–13–21—Public access to records.
Section 12–13–22—Representation by Attorney General.

(b) The regulatory provisions include the Rules of Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Management:

Hawaii

(a) The statutory provisions include:
(1) Hawaii Revised Statutes, Chapter 342L, Underground Storage Tanks.
Section 342L–1 Definitions (except “complaint” insofar as it sets forth enforcement authorities; “owner” insofar as it includes persons who hold indicia of ownership to protect an interest in a tank; “permit” insofar as it sets forth a permitting program; and “regulated substance” insofar as it includes other substances as designated by the Department)
Section 342L–7.5 Record maintenance
Section 342L–30 Notification requirements (except paragraph (i) of this section insofar as it grants the Department authority to assess penalties for non-compliance)
Section 342L–32 Standards for tanks and tank systems
Section 342L–33 Release detection
Section 342L–34 Reporting of releases
Section 342L–35 Response to suspected or confirmed releases
Section 342L–36 Financial responsibility
Section 342L–37 Underground storage tank and tank system change in service and closure requirements
Section 342L–50 Definitions (except “owner” insofar as it defines lenders as operators and subjects such lenders to requirements other than the corrective action requirements)
(2) Hawaii Revised Statutes, Chapter 342D, Water Pollution.
Section 342D–1 Definitions
Section 342D–4 Duties; rules
Section 342D–7 Variances (Insofar as paragraph (a) of this appendix is applicable to the underground storage tank program)
Section 342D–36 Hazardous substance defined
Section 342D–50 Prohibition
Section 342D–51 Affirmative duty to report discharges
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(3) Hawaii Revised Statutes, Chapter 342E, Nonpoint Source Pollution Management and Control.
Section 342E–1 Definitions
Section 342E–2 Nonpoint source pollution management and control program
(b) The regulatory provisions include:
(1) Hawaii Administrative Rules, Chapter 11–281, Underground Storage Tanks
Section 11–281–01 Applicability
Section 11–281–02 Prohibition for deferred underground storage tanks or tank systems
Section 11–281–03 Definitions (except “complaint” insofar as it sets forth enforcement authorities; “farm tank” insofar as it regulates tanks on farms that are not used for farm or commercial purposes; “field citation” and “force majeure” insofar as they relate to the Department’s enforcement authorities; “regulated substance” insofar as the Department can designate other substances; “reportable quantity” insofar as it sets forth a reporting threshold of 10 lbs. for trichloropropane; and “underground storage tank” insofar as its designation of farm tanks exceeds the scope of the federal regulations)
Section 11–281–11 Performance standards for underground storage tanks and tank systems
Section 11–281–12 Tank requirements
Section 11–281–13 Piping requirements
Section 11–281–14 Spill and overfill prevention equipment
Section 11–281–15 Installation
Section 11–281–16 Certification of installation
Section 11–281–17 Secondary containment
Section 11–281–18 Upgrading of existing underground storage tanks and tank systems
Section 11–281–21 Notification requirements for tanks brought into use before the effective date of these rules
Section 11–281–22 Notification requirements for tanks brought into use on or after the effective date of these rules
Section 11–281–24 Application for a permit (except insofar as paragraphs (a), (b), (c)(3), and (c)(4) of this section relate to the permitting program)
Section 11–281–25 Permit (except insofar as paragraphs (a) and (b) of this section relate to the permitting program)
Section 11–281–41 Spill and overfill control
Section 11–281–42 Operation and maintenance of corrosion protection systems
Section 11–281–43 Compatibility
Section 11–281–44 Repairs
Section 11–281–45 Reporting and recordkeeping (except paragraph (b)(3) of this section insofar as it addresses posting of signs; and paragraph (c)(6) insofar as it requires maintenance of permit records)
Section 11–281–51 General requirements for all underground storage tanks or tank systems
Section 11–281–52 Methods of release detection for tanks
Section 11–281–53 Methods of release detection for piping
Section 11–281–54 Release detection recordkeeping
Section 11–281–61 Reporting of suspected releases
Section 11–281–62 Investigation of off-site impacts
Section 11–281–63 Release investigation and confirmation steps
Section 11–281–64 Reporting and cleanup of spills and overfills
Section 11–281–71 General
Section 11–281–72 Immediate response actions
Section 11–281–74 Initial abatement measures and site assessment
Section 11–281–75 Initial site characterization
Section 11–281–76 Free product removal
Section 11–281–77 Investigation of soil and ground water contamination
Section 11–281–78 Site cleanup criteria
Section 11–281–78.1 Notification of confirmed releases
Section 11–281–79 Corrective action plan
Section 11–281–80 Public participation for corrective action plans (except paragraph (j) insofar as it sets forth enforcement authorities)
Section 11–281–80.1 Reporting and recordkeeping
Section 11–281–81 Temporary closure
Section 11–281–82 Permanent closure and change-in-service
Section 11–281–83 Site assessment
Section 11–281–84 Previously closed underground storage tanks or tank systems
Section 11–281–85 Closure records
Section 11–281–91 Applicability
Section 11–281–93 Definition of terms
Section 11–281–94 Amount and scope of required financial responsibility
Section 11–281–95 Allowable mechanisms and combinations of mechanisms
Section 11–281–96 Financial test of self-insurance
Section 11–281–97 Guarantee
Section 11–281–98 Insurance and risk retention group
Section 11–281–99 Surety bond
Section 11–281–100 Letter of credit
Section 11–281–101 Trust fund
Section 11–281–102 Standby trust fund
Section 11–281–103 Local government bond rating test
Section 11–281–104 Local government financial test
Section 11–281–106 Local government guarantee
Section 11–281–107 Local government fund
Section 11–281–108 Substitution of financial assurance mechanisms by owner or operator
Section 11–281–109 Cancellation or non-renewal by a provider of financial assurance
Section 11–281–110 Reporting by owner or operator
Section 11–281–111 Recordkeeping
Section 11–281–112 Drawing on financial assurance mechanisms
Section 11–281–113 Release from financial responsibility
Section 11–281–114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance
Section 11–281–115 Replenishment of guarantees, letters of credit, or surety bonds
Section 11–264–190 Applicability
Section 11–264–191 Assessment of existing tank system’s integrity
Section 11–264–192 Design and installation of new tank systems or components
Section 11–264–193 Containment and detection of releases
Section 11–264–194 General operating requirements
Section 11–264–195 Inspections
Section 11–264–196 Response to leaks or spills and disposition of leaking or unfit for use tank systems
Section 11–264–197 Closure and post-closure care
Section 11–264–198 Special requirements for ignitable or reactive wastes
Section 11–264–199 Special requirements for incompatible wastes
Section 11–264–200 Air emission standards

Iowa
(a) The statutory provisions include Code of Iowa, 1993, Chapter 455B, Jurisdiction of Department:
Section 101—Definitions
Section 103—Director’s duties, except for 455B.103(4)
Section 105—Powers and duties of the commission, except for 105(5), 105(11)(a)(3) and 105(11)(b)
Section 471—Definitions
Section 472—Declaration of policy
Section 473—Report of existing and new tanks—fee
Section 473A—Petroleum underground storage tank registration amnesty program
Section 474—Duties of Commission—rules

(b) The regulatory provisions include Iowa Administrative Code, 1993, Rule 567, Environmental Protection Commission:
Chapter 131.—Definitions
Chapter 131.—Scope
Chapter 132.—Definitions
Chapter 133.—Documentation of contamination and source
Chapter 134.—Response to contamination
Chapter 135.—Report to commission
Chapter 135.—Authority, purpose and applicability
Chapter 135.—Definitions
Chapter 135.—UST systems—design, construction, installation, and notification, except for 135.3(14a), 3(14b) and 3(14c)
Chapter 135.—General operating requirements
Chapter 135.—Release detection
Chapter 135.—Release reporting, investigation, and confirmation
Chapter 135.—Release response and corrective action for UST systems containing petroleum or hazardous substances
Chapter 135.—Site cleanup report
Chapter 135.—Out-of-service UST systems and closure
Chapter 135.—Laboratory analytical methods for petroleum contamination of soil and groundwater
Chapter 135.—Evaluation of ability to pay
Chapter 136.—Applicability
Chapter 136.—Compliance dates
Chapter 136.—Definition of terms
Chapter 136.—Amount and scope of required financial responsibility
Chapter 136.—Allowable mechanisms and combinations of mechanisms
Chapter 136.—Financial test of self-insurance
Chapter 136.—Guarantee
Chapter 136.—Insurance and risk retention group coverage
Chapter 136.—Surety bond
Chapter 136.—Letter of credit
Chapter 136.—Trust fund
Chapter 136.—Standby trust fund
Chapter 136.—Local government bond rating test
Chapter 136.—Local government financial test
Chapter 136.—Local government guarantee
Chapter 136.—Local government fund
Chapter 136.—Substitution of financial assurance mechanisms by owner or operator
Chapter 136.—Cancellation or nonrenewal by a provider of financial assurance
Chapter 136.—Reporting by owner or operator
Chapter 136.—Record keeping
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Chapter 136.21—Drawing on financial assurance mechanisms
Chapter 136.22—Release from the requirements
Chapter 136.23—Bankruptcy or other incapacity of owner or operator or provider of financial assurance
Chapter 136.24—Replenishment of guarantees, letters of credit, or surety bonds.

Kansas

(a) The statutory provisions include Kansas Statutes Annotated, 1992; Chapter 65, Public Health; Article 34, Kansas Storage Tank Act:

Section 100 Statement of legislative findings
Section 101 Citation of Act
Section 102 Definitions
Section 103 Exceptions to application of Act
Section 104 Notification
Section 105 Rules and regulations, except for 65–34, 105(a)(2), (a)(8), (a)(11), (a)(12) and the following words in (a)(13), “and aboveground storage tanks in existence on July 1, 1992” and “and aboveground storage tanks placed in service prior to July 1, 1992”;
Section 106 Permits to construct, install, modify, or operate storage tank, except for the following words in 65–34, 106(a), “and any aboveground storage tank registered with the department on July 1, 1992.”
Section 107 Evidence of financial responsibility required; limitation of liability
Section 115 Liability for costs of corrective action
Section 118 Corrective action; duties of owners and operators; duties of Secretary; consent agreement; contents, except for the following words in 65–34, 118(b), “or from the aboveground fund if the release was from an aboveground petroleum storage tank,” and “or from the aboveground fund, if the release was from an aboveground petroleum storage tank.”

(b) The regulatory provisions include Kansas Administrative Regulations, 1992; Chapter 28, Department of Health and Environment; Article 44, Petroleum Products Storage Tanks:

Section 12 General provisions
Section 13 Program scope and interim prohibition
Section 14 Definitions
Section 15 Application for installation or modification of an underground storage tank
Section 16 Underground storage tank systems: design, construction, installation and notification
Section 17 Underground storage tank operating permit

Section 19 General operating requirements

Louisiana

(a) The statutory provisions include:

1. Louisiana Environmental Quality Act, Louisiana Revised Statutes Title 30
Section 2194 Underground Storage Tanks; Registration
Section 2195 Underground Storage Tank Trust Fund
Section 2195.1 Underground Motor Fuel Storage Tank Remediation Agreements
Section 2195.2 Uses of the Trust
Section 2195.3 Source of Fundraising; Limitations on Disbursements from the ‘Trust’; Limit on Amount in Trust
Section 2195.4 Procedures for Disbursements from the Fund Trust
Section 2195.5 Audits
Section 2195.6 Ownership of Trust
Section 2195.7 No Inference of Liability on the Part of the State
Section 2195.8 Advisory Board
Section 2195.9 Financial Responsibility
Section 2196.10 Voluntary Cleanup, Private Contracts; Exemptions

(b) The regulatory provisions include:

1. Louisiana Environmental Regulatory Code, Part XI: Underground Storage Tanks, Chapter 1—Program Applicability and Definitions
Section 101 Applicability
Section 103 Definitions

2. Chapter 3—Registration Requirements, Standards, and Fee Schedule
Section 301 Registration Requirements
Section 303 Standards for UST Systems
Section 305 Interim Prohibitions for Deferred UST Systems
Section 307 Fee Schedule

3. Chapter 5—General Operating Requirements
Section 501 Spill and Overfill Control
Section 503 Operation and Maintenance of Corrosion Protection
Section 505 Compatibility
Section 507 Repairs Allowed
Section 509 Reporting and Recordkeeping

Section 701 Methods of Release Detection
Section 703 Requirements for Use of Release Detection Methods
Section 705 Release Detection Recordkeeping
5. **Chapter 9—Out-of-Service UST Systems and Closure**

Section 901 Applicability to Previously Closed UST Systems
Section 903 Temporary Closure
Section 905 Permanent Closure and Changes-in-Service
Section 907 Assessing the Site at Closure or Changes-in-Service

6. **Chapter 11—Financial Responsibility**

Section 1101 Applicability
Section 1103 Compliance Dates
Section 1105 Definition of Terms
Section 1107 Amount and Scope of Required Financial Responsibility
Section 1109 Allowable Mechanisms and Combinations of Mechanisms
Section 1111 Financial Test of Self-Insurance
Section 1113 Guarantee
Section 1115 Insurance and Risk Retention Group Coverage
Section 1117 Surety Bond
Section 1119 Letter of Credit
Section 1121 Use of the Underground Motor Fuel Storage Tank Trust
Section 1123 Trust Fund
Section 1125 Standby Trust Fund
Section 1127 Substitution of Financial Assurance Mechanisms by Owner or Operator
Section 1129 Cancellation or Nonrenewal by a Provider of Financial Assurance
Section 1131 Reporting by Owner or Operator
Section 1133 Recordkeeping
Section 1135 Drawing on Financial Assurance Mechanisms
Section 1137 Release from the Requirements
Section 1139 Bankruptcy or Other Incapacity of Owner or Operator or Provider of Financial Assurance
Section 1141 Replenishment of Guarantees, Letters of Credit, or Surety Bonds

**Maine**

The following is an informational listing of the state requirements incorporated by reference in part 282 of the Code of Federal Regulations:

- The statutory provisions include: Maine Revised Statutes Annotated, 1990, Title 38, Subchapter 11-B Underground Oil Storage Facilities and Groundwater Protection.
- Section 561—Findings; Purpose
- Section 562-A—Definitions
- Section 563—Registration of underground oil storage tanks
- Section 563-A—Prohibition of nonconforming underground oil storage facilities and tanks
- Section 563-B—Regulatory powers of department
- Section 564—Regulation of underground oil storage facilities
- Section 566—Abandonment of underground oil storage facilities and tanks
- Section 567—Certification of underground tank installers
- Section 568—Cleanup and removal of prohibited discharges
- Section 568-A—Fund coverage requirements
- Section 568-B—Fund Insurance Review Board
- Section 569-A—Ground water Oil Clean-up Fund
- Section 570—Liability

(b) The regulatory provisions include State of Maine, Department of Environmental Protection, Regulation for Registration, Installation, Operation and Closure of Underground Storage Facilities Chapter 691, September 16, 1991:

- Section 1. Legal Authority
- Section 2. Preamble
- Section 3. Definitions
- Section 4. Registration of Underground Oil Storage Tanks
- Section 5. Regulation of Motor Fuel, Marketing & Distribution Facilities
  - A. Applicability
  - B. Design and Installation Standards for New and Replacement Facilities
  - C. Retrofitting Requirements for Existing Facilities
  - D. Monitoring, Maintenance, & Operating Procedures for Existing, New & Replacement Facilities & Tanks
- E. Facility Closure and Abandonment
- Section 7. Regulation of Facilities for the Underground Storage of Waste Oil
  - A. Applicability
  - B. Design and Installation Standards
  - C. Operation, Maintenance, Testing, Requirements for Existing, New and Replacement Facilities
  - D. Closure & Abandonment of Waste Oil Facilities
- Section 8. Regulation of Field Constructed Underground Oil Storage Tanks
- Section 10. Regulation of Pressurized Airport Hydrant Piping Systems
- Section 11. Regulations for Closure of Underground Oil Storage Facilities
  - A. Facility Closure Requirements
  - B. Temporarily Out of Service Facilities and Tanks
  - C. Abandonment by Removal
  - D. Abandonment by Filling in Place
  - E. Notification Requirements
- Section 12. Discharge and Leak Investigation, Response and Corrective Action Requirements

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Massachusetts

(a) The statutory provisions include: General Laws of Massachusetts, Chapter 148, Section 38, 38A, B, C, and E:
Chapter 148
Section 38—Rules and Regulations
Section 38A—Prohibition of Removal of Certain Gasoline Tanks without Permit
Section 38B—Underground Storage Tanks; Definitions
Section 38C—Notification of Department of Public Health by Owners of Underground Storage Tanks
Section 38E—Regulations Governing Underground Storage Tanks
Massachusetts General Law, Chapter 21E, The Massachusetts Oil and Hazardous Materials Release Prevention and Response Act, July 1, 1992:
Section 1—Title of Chapter
Section 2—Definitions
Section 3—Securing of benefits of FWPCA, CERCLA, etc. Massachusetts Contingency Plan; promulgation of necessary regulations
Section 4—Response actions to release or threatened release of oil or hazardous material; assessment, containment, and removal actions in accordance with Massachusetts contingency plan.
Section 5—Liability of release or threat of release of oil or hazardous material; apportionment of costs; treble damages; nullification of indemnification, hold harmless, or similar agreements
Section 6—Prevention of control of release of hazardous materials; regulations of department; contingency plans; monitoring equipment
Section 7—Notice of requirements; release or threat of release of oil or hazardous material; exceptions

(b) The regulatory provisions include: State of Massachusetts, Board of Fire Prevention Regulations, 527 CMR 9.00-9.02 and 9.05, 9.06(C)-(E), and 9.07(A)-(L) (effective July 3, 1993); and Massachusetts Environmental Protection Rules, 310 CMR 40.0000 Subparts A-O as if they pertain to underground storage tanks and are not broader in scope than the federal requirements, as set forth below:
(1) State of Massachusetts, Board of Fire Prevention Regulations, 527 CMR 9.00: Tanks and Containers, (effective July 3, 1993):
Section 9.01—Purpose and Scope
Section 9.02—Definitions
Section 9.03—Underground Storage Tanks
Section 9.05(A)(1)-(3) and (5)-(8)—Design and Construction of New or Replacement Underground Tanks
Section 9.05(B)—Underground Piping
Section 9.05(C)—Underground Tank Installation
Section 9.05(D)—Leak Detection Equipment, Testing and/or Inventory Requirements for Underground Tanks
Section 9.05(E)—Inventory Methods for Underground Tanks
Section 9.05(F)—Testing for Tightness of Underground Storage Facilities
Section 9.05(G)—Upgrading of Existing Underground Storage Tank Systems
Section 9.06(C)—Upgrade of Existing Underground Waste Oil Storage Tank Systems
Section 9.06(D)—Product Transfer
Section 9.06(E)—Non-Flammable Hazardous Substances
Section 9.07—General Provisions
Section 9.07(A)—Material and Construction of All Tanks and Containers
Section 9.07(B)—Fill and Vent Pipes for All Tanks and Containers
Section 9.07(C)—Piping for All Tanks
Section 9.07(D)—Pumping System
Section 9.07(E)—Pressure Vessels
Section 9.07(F)—Response to Leaks
Section 9.07(G)—Tank Repair and Relining
Section 9.07(H)—Tanks Abandoned and Temporarily Out of Service
Section 9.07(I)—Tank Removal
Section 9.07(K)—Permits
Section 9.07(L)—Financial Responsibility Requirements
(2) Massachusetts Environmental Protection Rules, 310 CMR, Section 40.000, Massachusetts Contingency Plan, (effective October 1, 1993) only insofar as they pertain to the regulation of underground storage tanks in Massachusetts and only insofar as they are incorporated by reference and are not broader in scope than the federal requirements. Note that reserved sections of 310 CMR 40.0000 et seq. are not incorporated by reference:
Subpart A—General Provisions
Subpart B—Organization and Responsibility
Subpart C—Notification of Releasess and Threats of Release of Oil and Hazardous Material; Identification and Listing of Oil and Hazardous Materials
Subpart D—Preliminary Response Action and Risk Reduction Measures
Subpart E—Tier Classification and Response Action Deadlines
Subpart F—Transition Provisions
Subpart G—Tier I Permits
Subpart H—Comprehensive Response Action
Subpart I—Risk Characterization
Subpart J—Response Action Outcomes
Subpart K—Audits and Compliance Assistance
Subpart L—Cost Recovery, Lien Hearings and Petitions for Reimbursement of Incurred Costs
Subpart M—Administrative Record
Subpart N—Public Involvement and Technical Grants
Subpart O—Numerical Ranking System and Scoring Instructions

Minnesota

(a) The statutory provisions include:

(1) Minnesota Statutes, Chapter 11, Government Data Practices
  M. S. 13.01 Government Data
  M. S. 13.02 Collection, security, and dissemination of records; definitions
  M. S. 13.03 Access to government data
  M. S. 13.04 Rights of subjects of data
  M. S. 13.05 Duties of responsible authority
  M. S. 13.06 Temporary classification
  M. S. 13.07 Duties of the commissioner
  M. S. 13.3806 Public health data coded elsewhere; subd. 1–3, 6, 10, 20: Scope; Certain epidemiologic studies; Public health studies; Health records; Health threat procedures; Hazardous substance exposure
  M. S. 13.741 Pollution control; environmental quality data
  M. S. 13.7411 Pollution control and environmental quality data coded elsewhere; subd. 1–3, 5–7: Scope; Environmental audits, performance schedules; Office of environmental assistance; Environmental response and liability; Petroleum tank release; Toxic pollution prevention plans

(2) Minnesota Statutes, Chapter 115, Water Pollution Control: Sanitary Districts
  M. S. 115.01 Definitions
  M. S. 115.061 Duty to notify and avoid water pollution

(3) Minnesota Statutes, Chapter 115B, Environmental Response and Liability
  M. S. 115B.17 State Response to Releases; subd. 1–3, 12–14: Removal and remedial action; Other actions; Cleanup standards; Public notice of proposed response actions; Duty to provide information; Authorization of certain response actions; Priorities; rules; Requests for review, investigation, and oversight

(4) Minnesota Statutes, Chapter 115C, Petroleum Tank Release Cleanup
  M. S. 115C.01 Citation
  M. S. 115C.02 Definitions
  M. S. 115C.021 Responsible person
  M. S. 115C.03 Response to releases [except subd. 10 insofar as it applies to contractors and consultants, who are not regulated under the federal program.]
  M. S. 115C.06 Effect on other law
  M. S. 115C.07 Petroleum tank release compensation board
  M. S. 115C.08 Petroleum tank fund [except subd. 3, which imposes a petroleum tank release cleanup fee on petroleum distributors]
  M. S. 115C.09 Reimbursement [except subd. 5(b) and 6, which set forth enforcement authorities]
  M. S. 115C.092 Tank Removals; Payment for pre-removal site assessment
  (5) Minnesota Statutes, Chapter 115E, Oil and Hazardous Substance Discharge Preparedness
    M. S. 115E.01 Definitions
    M. S. 115E.02 Duty to prevent discharges

(6) Minnesota Statutes, Chapter 116, Pollution Control Agency
  M. S. 116.05 Definitions
  M. S. 116.46 Definitions [except subd. 8, insofar as it includes vessels, enclosures, or structures—which are exempt from the federal program—in the definition of UST.]
  M. S. 116.47 Exemptions [except insofar as paragraph (2) does not exclude from regulation tanks of 1,100 gallon capacity or more used to store heating oil for consumptive purposes]
  M. S. 116.48 Notification requirements [except subd. 1(b), insofar as it requires owners of aboveground storage tanks (ASTs) to notify the agency of the tank’s status; subd. 2 and 6, insofar as they impose requirements on owners of ASTs; subd. 3, insofar as it imposes notification requirements on owners of ASTs removing a tank from service or changing the tank’s service; subd. 4, insofar as it places notification requirements on persons transferring the title to regulated substances to be placed directly into an UST; and subd. 5, insofar as it imposes notification requirements on sellers of ASTs.]
  M. S. 116.49 Environmental protection requirements
  (7) Minnesota Statutes, Chapter 299F, Fire Marshal
    M. S. 299F.011 Uniform Fire Code; adoption; subd. 1, 3, 4: Authority; Rules for code administration and enforcement; Applicability; local authority
    M. S. 299F.19 Flammable liquids and explosives; subd. 1: Rules

(b) The regulatory provisions include:

(1) Minnesota Rules, Chapter 2890, Petroleum Tank Releases

2890.0010 Definitions
2890.0060 Reimbursement of Costs
2890.0065 Reduction of Reimbursement Amount
2890.0070 Eligible Costs
2890.0071 Ineligible Costs

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2890.0072 Overview of Rules Governing Reasonableness of Costs for Consultant Services
2890.0073 Definitions Related to Consultant Services
2890.0074 Written Proposal and Invoice Required for Consultant Services
2890.0075 Reasonableness of Work Performed; Standard Tasks for Each Step of Consultant Services
2890.0076 Maximum Costs for Consultant Services
2890.0077 Competitive Bidding Requirements for Consultant Services Proposals
2890.0078 Deviations from Standard Tasks and Maximum Costs for Consultant Services
2890.0079 Reasonable, Necessary, and Actual Consultant Services Costs
2890.0080 Overview of Rules Governing Reasonableness of Costs for Contractor Services
2890.0081 Definitions Related to Contractor Services
2890.0082 Maximum Costs for Contractor Services
2890.0083 Competitive Bidding Requirements for Contractor Services
2890.0084 Deviations from Maximum Costs for Contractor Services
2890.0085 Reasonable, Necessary, and Actual Costs
2890.0086 Invoice
2890.0087 Exemptions from Competitive Bidding
2890.0088 Application Process
2890.0089 Funding of MPCA Actions
(2) Minnesota Rules, Chapter 7045—Minnesota Pollution Control Agency, Hazardous Waste Division, Hazardous Waste Management
7045.0275 Management of Hazardous Waste Spills
(3) Minnesota Rules, Chapter 7060—Minnesota Pollution Control Agency, Water Quality Division, Underground Waters
7060.0300 Definitions
7060.0500 Nondegradation Policy
7060.0600 Standards; subp. 2, 3, 4: Prohibition against discharge into unsaturated zone; Control measures; Toxic pollutants
7060.0800 Determination of Compliance
(4) Minnesota Rules, Chapter 7150—Minnesota Pollution Control Agency, Water Quality Division, Underground Storage Tanks: Training
7150.0100 Definitions [except subp. 25, insofar as it includes vessels, enclosures, and structures—which are exempt from the federal program—in the definition of UST.]
7150.0101 Purpose
7150.0300 General Provisions; subp. 3: Tank owner or operator requirements
7150.0400 Exclusions [except insofar as it does not exclude from regulation heating oil storage tanks with a storage capacity of greater than 1,100 gallons.]

(5) Minnesota Rules, Chapter 7159—Minnesota Pollution Control Agency, Water Quality Division, Underground Storage Tanks Program
7159.0010 Applicability [except subp. 2, insofar as it does not exclude from regulation liquid traps or associated gathering lines directly related to oil or gas production or gas production and gathering operations; subp. 2(H), insofar as it does not exclude from regulation tanks of 1,100 gallons or more used exclusively for storing heating oil for consumptive use; and subp. 5, insofar as it does not exclude owners and operators of heating oil storage tanks with a storage capacity of greater than 1,100 gallons from notification requirements.]
7159.0020 Interim Standards for Deferred Underground Storage Tank Systems
7159.0030 Definitions [except subp. 51, insofar as it includes vessels, enclosures, and structures—which are exempt from the federal program—in the definition of underground storage tanks]
7159.0100 Performance Standards for New Underground Storage Tank Systems
7159.0110 Upgrading of Existing Underground Storage Tank Systems
7159.0120 Notification Requirements
7159.0200 Spill and Overfill Control
7159.0210 Operation and Maintenance of Corrosion Protection
7159.0220 Compatibility
7159.0230 Repairs Allowed
7159.0240 Reporting and Recordkeeping
7159.0300 General Requirements for All Underground Storage Tank Systems [except subp. 3, insofar as it imposes release detection schedule requirements on hazardous material tanks not regulated under the federal program]
7159.0310 Requirements for Petroleum Underground Storage Tank Systems
7159.0320 Requirements for Hazardous Material Underground Storage Tank Systems
7159.0330 Methods of Release Detection for Tanks
7159.0340 Methods of Release Detection for Piping
7159.0350 Release Detection Recordkeeping
7159.0400 Temporary Closure
7159.0410 Permanent Closure and Changes-in-Service to Storage of Nonregulated Substances
7159.0420 Assessing the Site at Closure or Change in Service
7159.0430 Applicability to Previously Closed Underground Storage Tank Systems
7159.0440 Closure Records
(6) Minnesota Rules, Chapter 7510—Department of Public Safety, Fire Marshal Division, Fire Safety
7510.3670 Liquefied Petroleum Gases; Section 8203: Installation of containers [except insofar as it regulates ASTs]

Mississippi

(a) The statutory provisions include:

49–17–401 Short title

49–17–403 Definitions

49–17–405 Groundwater protection fund; duties of executive director; liability of tank owners; limitation on provisions of chapter and section

49–17–407 Environmental protection fee on motor fuels; deposit of fees; limits on use of fund; third party claims

49–17–409 Reports of contamination incidents; no recourse against tank owner; exceptions

49–17–411 Compliance with regulations

49–17–413 Rules and Regulations

49–17–417 Groundwater protection advisory committee

49–17–419 Authority of commission to take timely and effective corrective action; use of funds from pollution emergency fund

49–17–421 Tank regulatory fee

49–17–423 Commission to administer funds from Leaking Underground Storage Tank Trust Fund

49–17–425 Disclosure of records, reports, and information

49–17–433 Savings clause

49–17–435 Annual report on status of underground storage tank program

(b) The regulatory provisions include:

1. Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks.

Subpart A—Program Scope and Interim Prohibition

280.10 Applicability

280.11 Interim Prohibition for deferred UST systems

280.12 Definitions

Subpart B—UST Systems: Design, Construction, Installation, and Notification

280.20 Performance standards for new UST systems

280.21 Upgrading of existing UST systems

280.22 Notification requirements

Subpart C—General Operating Requirements

280.30 Spill and overfill control

280.31 Operation and maintenance of corrosion protection

280.32 Compatibility

280.33 Repairs allowed

280.34 Reporting and recordkeeping

Subpart D—Release Detection

280.40 General requirements for all UST systems

280.41 Requirements for petroleum UST systems

280.42 Requirements for hazardous substance UST systems

280.43 Methods of release detection for tanks

280.44 Methods of release detection for piping

280.45 Release detection recordkeeping

Subpart E—Release Reporting, Investigation, and Confirmation

280.50 Reporting of suspected releases

280.51 Investigation due to off-site impacts

280.52 Release investigation and confirmation steps

280.53 Reporting and cleanup of spills and overfills

Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

280.60 General

280.61 Initial response

280.62 Initial abatement measures and site check

280.63 Initial site characterization

280.64 Free product removal

280.65 Investigations for soil and groundwater cleanup

280.66 Corrective action plan

280.67 Public participation

Subpart G—Out-of-Service UST Systems and Closure

280.70 Temporary closure

280.71 Permanent closure and change-in-service

280.72 Assessing the site at closure or change-in-service

280.73 Applicability to previously closed UST systems

280.74 Closure records


280.90 Applicability

280.91 Compliance dates

280.92 Definition of terms

280.93 Amount and scope of required financial responsibility

280.94 Allowable mechanisms and combinations of mechanisms

280.95 Financial test of self-insurance

280.96 Guarantee

280.97 Insurance and risk retention group coverage

280.98 Surety bond

280.99 Letter of credit

280.100 Use of state-required mechanism

280.101 State fund or other state assurance

280.102 Trust fund

280.103 Standby trust fund

280.104 Substitution of financial assurance mechanisms by owner or operator

280.105 Cancellation or nonrenewal by a provider of financial assurance

280.106 Reporting by owner or operator

280.107 Recordkeeping

280.108 Drawing on financial assurance mechanisms

280.109 Release from the requirements

280.110 Bankruptcy or other incapacity of owner or operator or provider of financial assurance

280.111 Replenishment of guarantees, letters of credit, or surety bonds
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Section I General Intent

Section II Legal Authority

Section III Definitions

Section XIV Eligibility for Reimbursement from the Mississippi Groundwater Protection Trust Fund

Section XV Reimbursable Costs

Section XVI Funds Disbursement

Section XVII Third Party Claims

Section XVIII Denial of Claims

Section XIX Tank Regulatory Fees

Section XXI Property Rights

Nevada

(a) The statutory provisions include:


(2) Nevada Revised Statute Chapter 459, Underground Storage Tank Program (1992):

Section 459.810 “Operator” defined.

Section 459.814 “Person” defined.

Section 459.816 “Regulated Substance” defined.

Section 459.818 “Release” defined.

Section 459.820 “Storage Tanks” defined.

Section 459.822 Department designated as state agency for regulation of storage tanks.

Section 459.828 Owner or operator of storage tank to provide department with certain information.

Section 459.838 Fund for the management of storage tanks: Creation: Sources: Claims.

Section 459.840 Fund for the management of storage tanks: Use; reimbursement; recovery by attorney general.


Section 590.700 Definitions.

Section 590.710 “Board” defined.

Section 590.720 “Department” defined.

Section 590.725 “Diesel fuel of grade number 1” defined.

Section 590.726 “Diesel fuel of grade number 2” defined.

Section 590.730 “Discharge” defined.

Section 590.740 “Division” defined.

Section 590.750 “Fund” defined.

Section 590.760 “Heating oil” defined.

Section 590.765 “Motor vehicle fuel” defined.

Section 590.770 “Operator” defined.

Section 590.780 “Person” defined.

Section 590.790 “Petroleum” defined.

Section 590.800 “Storage tank” defined.

Section 590.810 Legislative findings.

Section 590.820 Board to review claims: Creation; members; chairman; administrative Assistance; compensation of members.

Section 590.830 Fund for cleaning up discharges of petroleum: Creation; administration by division; claims; interest.

Section 590.840 Collection of fee for certain fuels and heating oil; exempt products; payment of expenses of department.

Section 590.850 Registration of storage tanks: Collection of annual fee; exempt tanks; liability for noncompliance.

Section 590.860 Balance in fund to determine collection of fees by department.

Section 590.870 Report of discharge from tank required; division to clean up discharge; expectation; test of tank required for coverage.

Section 590.880 Allocation of costs resulting from discharge from certain storage tanks for heating oil.

Section 590.890 Allocation of costs resulting from discharge from other storage tanks.

Section 590.900 Liability for costs to clean up discharge caused by willful or wanton misconduct, gross negligence or violation of statute or regulation.

Section 590.910 Pro rata reduction required, if balance in fund insufficient for full payment.

Section 590.920 Tanks exempted from provisions of Sections 590.850 to 590.910 inclusive; optional coverage of exempted tank.


(b) The regulatory provisions include:

(1) Nevada Administrative Code 459, UST Program (1990):

Section 459.9929 “Storage Tank” defined.

Section 459.993 Compliance with federal regulations.

Section 459.996 Releases: Reporting.


Section 590.720 Adoption by reference of provisions of Code of Federal Regulations.


Section 45.240 Notice required.

New Hampshire


Section 146-C:1 Definitions, except for the following words in 146-C:1. XII, “heating oil”.

Section 146-C:2 Discharges Prohibited.

Section 146-C:3 Registration of Underground Storage Facilities.

Section 146-C:4 Underground Storage Facility Permit Required.
Section 146–C:5 Records Required; Inspections.
Section 146–C:6 Transfer of Ownership.
Section 146–C:6–a Exemption.
Section 146–C:7 New Facilities.
Section 146–C:8 Prohibition Against Reusing Tanks.
Section 146–C:9 Rulemaking.
Section 146–C:11 Liability for Cleanup Costs; Municipal Regulations.
Section 146–C:12 Federal Assistance and Private Funds.
(b) The regulatory provisions include:
(1) New Hampshire Code of Administrative Rules (November 1990) Part Env-Ws 411, Control of Underground Storage Facilities:
Section 411.01 Purpose, except for the following words, “heating oils.”
Section 411.02 Applicability, except for 411.02(d).
Section 411.03 Definitions.
Section 411.04 Registration.
Section 411.05 Change in Use.
Section 411.06 Information Required for Registration.
Section 411.07 Permit to Operate.
Section 411.08 Transfer of Facility Ownership.
Section 411.10 Financial Responsibility.
Section 411.11 Inventory Monitoring.
Section 411.12 Regulated Substance Transfers.
Section 411.13 Tightness Testing.
Section 411.14 Certification of Technicians Performing Tightness Tests.
Section 411.15 Tightness Test Failures.
Section 411.16 Unusual Operating Conditions.
Section 411.17 Temporary Closure.
Section 411.18 Permanent Closure.
Section 411.19 Prohibition Against Reusing Tanks.
Section 411.20 Requirements for Approval of Underground Storage Systems.
Section 411.21 Tank Standards for New Underground Storage Systems.
Section 411.22 Piping Standards for New Underground Storage Systems.
Section 411.23 Secondary Containment for New Tanks.
Section 411.24 Secondary Containment for New Pressurized Piping.
Section 411.25 Spill Containment and Overfill Protection.
Section 411.26 Leak Monitoring for New Tanks.
Section 411.27 Leak Monitoring for New Underground Piping Systems.
Section 411.28 Installation of New Underground Storage Systems.
Section 411.29 Release Detection for Tanks Without Secondary Containment and Leak Monitoring, except for the following words in 411.29(a), “With the exception of on premise use heating oil systems.”
Section 411.30 Release Detection for Piping.
Section 411.31 Operation of Leak Monitoring Equipment.
Section 411.32 Corrosion Protection for Steel Tanks.
Section 411.33 Corrosion Protection for Piping.
Section 411.34 Submission of Corrosion Protection Plan.
Section 411.35 Relining Steel Tanks.
Section 411.36 Repair of Fiberglass-Reinforced Plastic Tanks.
Section 411.37 Repair and Replacement of Piping Systems.
Section 411.38 Field Fabricated Tanks.
Section 411.39 Secondary Containment for Hazardous Substance Systems.
Section 411.40 Waivers.
(b) New Hampshire Code of Administrative Rules (November 1990) Part Env-Ws 412, Reporting and Remediation of Oil Discharges:
Section 412.01 Purpose.
Section 412.02 Applicability.
Section 412.03 Definitions.
Section 412.04 Notification.
Section 412.05 Initial Response Action.
Section 412.06 Abatement Measures.
Section 412.07 Free Product Removal.
Section 412.08 Initial Site Characterization.
Section 412.09 Investigation Due to Discovery of Discharges from Unknown Sources.
Section 412.10 Site Investigation.
Section 412.11 Site Investigation Report.
Section 412.12 Remedial Action Plan.
Section 412.13 Public Notification.
Section 412.14 Waivers.
New Mexico
(a) The statutory provisions include:
1. New Mexico Statutes 1978 Annotated, Chapter 74, Environmental Improvement (1993 Replacement Pamphlet and 1994 Supplement)
   a. Article 4: Hazardous Wastes
      74–4–1 Short Title
      74–4–2 Purpose
      74–4–3 Definitions
      74–4–3.1 Application of Act
      74–4–3.3 Hazardous Wastes of Other States
      74–4–4 Duties and Powers of the Board
      74–4–4.1 Hazardous Agricultural Waste; Duties and Responsibilities of the Department of Agriculture
      74–4–4.4 Underground Storage Tanks; Registration; Installer Certification; Fees
      74–4–4.5 Hazardous Waste Fund Created; Appropriation
      74–4–4.7 Permit Applicant Disclosure
      74–4–4.8 Underground Storage Tank Fund Created; Appropriation
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74–4–5 Adoption of Regulations; Notice and Hearing
74–4–7 Containment and Cleanup of Hazardous Substance Incidents; Division of Powers
74–4–8 Emergency Fund
74–4–9 Existing Hazardous Waste Facilities; Interim Status
74–4–10.1 Hazardous Waste Monitoring; Analysis and Testing
b. Article 6: Water Quality
74–6–1 Short Title
74–6–2 Definitions
74–6–3 Water Quality Control Commission Created
74–6–3.1 Legal Advice
74–6–4 Duties and Powers of Commission
74–6–5 Permits; Certification; Appeals to Commission
74–6–5.1 Disclosure Statements
74–6–5.2 Water Quality Management Fund Created
74–6–6 Adoption of Regulations and Standards; Notice and Hearing
74–6–8 Duties of Constituent Agencies
74–6–9 Powers of Constituent Agencies
74–6–12 Limitations
74–6–13 Construction
74–6–14 Recompiled
74–6–15 Confidential Information; Penalties
74–6–16 Effect and Enforcement of Water Quality Act During Transition
74–6–17 Termination of Agency Life; Delayed Repeal
c. Article 6B: Ground Water Protection
74–6B–1 Short Title
74–6B–2 Findings; Purpose of Act
74–6B–3 Definitions
74–6B–4 Underground Storage Tank Committee; Creation; Terms; Powers and Duties
74–6B–6 Civil Liability for Damage to Property from Leaking Underground Storage Tank
74–6B–7 Corrective Action Fund Created; Authorization for Expenditures
74–6B–8 Liability; Cost Recovery
74–6B–9 Underground Storage Tank Fee; Deposit in Underground Storage Tank Fund
74–6B–10 Act Does not Create Insurance Company or Fund
74–6B–12 Early Response Team Created
74–6B–13 Payment Program
74–6B–14 State Liability; Insufficient Balance in the Fund
(b) The regulatory provisions include:
1. State of New Mexico Environmental Improvement Board Underground Storage Tank Regulations
Section 100 Purpose
Section 101 Legal Authority
Section 102 Definitions
Section 103 Applicability
b. Part II: Registration of Tanks
Section 200 Existing Tanks
Section 201 Transfer of Ownership
Section 202 New UST System
Section 203 Substantially Modified UST Systems
Section 204 Notification of Spill or Release
Section 205 Emergency Repairs and Tank Replacement
Section 206 Application Forms
Section 207 Registration Certificate
c. Part III: Annual Fee
Section 300 Payment of Fee
Section 301 Amount of Fee
Section 302 Late Payment Penalties
Section 400 Performance Standards for New UST Systems
Section 401 Upgrading of Existing UST Systems
Section 402 Certificate of Compliance; Notification Requirements
e. Part V: General Operating Requirements
Section 500 Spill and Overfill Control
Section 501 Operation and Maintenance of Corrosion Protection
Section 502 Certificate of Compliance; Notification Requirements
f. Part VI: Release Detection
Section 600 General Requirements for All UST Systems
Section 601 Requirements for Petroleum UST Systems
Section 602 Requirements for Hazardous Substance UST Systems
Section 603 Methods of Release Detection for Tanks
Section 604 Methods of Release Detection for Piping
Section 605 Release Detection Recordkeeping
g. Part VII: Release Reporting, Investigation, and Confirmation
Section 700 Reporting of Suspected Releasess
Section 701 Investigation Due to Off-Site Impacts
Section 702 Release Investigation and Confirmation Steps
Section 703 Reporting and Cleanup of Spills and Overfills
h. Part VIII: Out-of-Service Systems and Closure
Section 800 Temporary Closure
Section 801 Permanent Closure and Changes-in-Service
Section 802 Assessing the Site at Closure or Change-in-Service
Section 803 Applicability to Previously Closed UST Systems
Section 804 Closure Records
i. Part IX: Financial Responsibility
Section 900 Applicability
Section 901 Compliance Dates
Section 902 Definition of Terms
Section 903 Amount and Scope of Required Financial Responsibility
Section 904 Allowable Mechanisms and Combinations of Mechanisms
Section 905 Financial Test of Self-Insurance
Section 906 Guarantee
Section 907 Insurance and Risk Retention Group Coverage
Section 908 Surety Bond
Section 909 Letter of Credit
Section 910 Use of State-Required Mechanism
Section 911 State Fund or Other State Assurance
Section 912 Trust Fund
Section 913 Standby Trust Fund
Section 914 Substitution of Financial Assurance Mechanisms by Owner or Operator
Section 915 Cancellation or Nonrenewal by a Provider of Financial Assurance
Section 916 Reporting by Owner or Operator
Section 917 Recordkeeping
Section 918 Drawing on Financial Assurance Mechanisms
Section 919 Release from the Requirements
Section 920 Bankruptcy or Other Incapacity of Owner or Operator or Provider of Financial Assurance
Section 921 Replenishment of Guarantees, Letters of Credit, or Surety Bonds
Section 922 Suspension of Enforcement [Reserved]

j. Part XI: Miscellaneous
Section 1100 Compliance with Other Regulations
Section 1101 Construction
Section 1102 Severability

k. Part XII: Corrective Action for UST Systems Containing Petroleum
Section 1200 General
Section 1201 Definitions
Section 1202 Initial Response
Section 1203 Initial Abatement
Section 1204 72 Hour and 7 Day Reporting Requirements
Section 1205 On-Site Investigation
Section 1206 Report on the On-Site Investigation
Section 1207 Split Samples and Sampling Procedures
Section 1208 Free Product Removal
Section 1209 Treatment of Highly Contaminated Soils
Section 1210 Hydrogeologic Investigation
Section 1211 Review and Approval of Hydrogeologic Investigation
Section 1212 Reclamation Proposal
Section 1213 Public Notice of Reclamation Proposal
Section 1214 Review and Approval of Reclamation Proposal
Section 1215 Implementation of Reclamation Proposal
Section 1216 Quarterly Reports
Section 1217 Evaluation of Corrective Action System
Section 1218 Modification of Reclamation Proposal
Section 1219 Termination of Reclamation
Section 1220 Technical Infeasibility for Completion of Reclamation
Section 1221 Request for Extension of Time
Section 1222 Request for Variance

l. Part XIII: Corrective Action for UST Systems Containing Other Regulated Substances
Section 1300 General
Section 1301 Definitions
Section 1302 Initial Response
Section 1303 Initial Abatement
Section 1304 72 Hour and 7 Day Reporting Requirements
Section 1305 On-Site Investigation
Section 1306 Report on the On-Site Investigation
Section 1307 Split Samples and Sampling Procedures
Section 1308 Hydrogeologic Investigation
Section 1309 Review and Approval of Hydrogeologic Investigation
Section 1310 Reclamation Proposal
Section 1311 Public Notice of Reclamation Proposal
Section 1312 Review and Approval of Reclamation Proposal
Section 1313 Implementation of Reclamation Proposal
Section 1314 Quarterly Reports
Section 1315 Evaluation of Corrective Action System
Section 1316 Modification of Reclamation Proposal
Section 1317 Termination of Reclamation
Section 1318 Additional Water Quality Standards
Section 1319 Request for Extension of Time
Section 1320 Request for Variance

m. Part XV: Ground Water Protection Act Regulations
Section 1500 Purpose
Section 1501 Legal Authority
Section 1502 Definitions
Section 1503 Construction
Section 1504 Permissible Fund Expenditures
Section 1505 Priorities for Fund Expenditures
Section 1506 Site-Specific Allocation of Fund Monies
Section 1507 Reserved and Dedicated Fund Monies
Section 1508 Minimum Site Assessment

2. Corrective Action Fund Payment and Reimbursement Regulations

Section 101 Authority
Environmental Protection Agency

Section 102 Purpose
Section 103 Applicability
Section 104 Definitions
b. Part II: Compliance Determinations
Section 201 General
Section 202 Determination of Compliance under Section 74–6B–8
Section 203 Compliance Determination Following Written Submission
c. Part III: Eligible and Ineligible Costs
Section 301 Minimum Site Assessment
Section 302 Corrective Action
d. Part IV: Application, Payment, and Reimbursement
Section 401 Application, Payment, and Reimbursement Process
e. Part V: Administrative Review
Section 501 Review by the Director on Written Submittal
Section 502 Request for Hearing on Determinations of Compliance and Cost Eligibility
Section 503 Notice of Docketing and Hearing Officer Assignment; Motions; Prehearing Procedures and Discovery; Hearing and Post-Hearing Procedures
Section 601 Liberal Construction
Section 602 Severability
Section 603 Compliance

North Carolina
(a) The statutory provisions include:

General Statutes of North Carolina, Chapter 143—State Departments, Institutions, and Commissions; Article 21A, Oil Pollution and Hazardous Substances Control
§143–215.75 Title
§143–215.76 Purpose
§143–215.77 Definitions
§143–215.77A Designation of hazardous substances and determination of quantities which may be harmful
§143–215.78 Oil pollution control program
§143–215.80 Confidential information
§143–215.81 Authority supplemental
§143–215.82 Local ordinances
§143–215.83 Discharges (Except insofar as (c) addresses permit requirements.)
§143–215.84 Removal of prohibited discharges
§143–215.85 Required notice
§143–215.86 Other State agencies and State-designated local agencies
§143–215.87 Oil or Other Hazardous Substances Pollution Protection Fund
§143–215.88 Payment to State agencies or State-designated local agencies
§143–215.89 Multiple liability for necessary expenses
§143–215.90 Liability for damage to public resources
§143–215.93 Liability for damage caused
§143–215.93A Limitation on liability of persons engaged in removal of oil discharges

§143–215.94A Definitions (Except insofar as .94A(2) subjects certain heating oil tanks and the piping connected to otherwise excluded tanks to the regulatory requirements.)
§143–215.94B Commercial Leaking Petroleum Underground Storage Tank Cleanup Fund
§143–215.94D Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Fund
§143–215.94E Rights and obligations of the owner and operator
§143–215.94G Authority of the Department to engage in cleanups; actions for fund reimbursement (Except insofar as (e) outlines enforcement authorities.)
§143–215.94H Financial responsibility
§143–215.94I Insurance pools authorized; requirements
§143–215.94J Limitation of liability of the State of North Carolina
§143–215.94L Adoption of rules; administrative procedure; short title; miscellaneous provisions
§143–215.94M Reports
§143–215.94N Applicability
§143–215.94O Petroleum Underground Storage Tank Funds Council
§143–215.94P Groundwater Protection Loan Fund
§143–215.94T Adoption and implementation of regulatory program
§143–215.94V Standards for petroleum underground storage tank cleanup

(b) The regulatory provisions include:

North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2L: Groundwater Classification and Standards
1. Section .0100 General Considerations
   .0101 Authorization
   .0102 Definitions
   .0103 Policy
   .0104 Restricted Designation (RS)
   .0105 Adoption by Reference (Repealed)
   .0106 Corrective Action
   .0107 Compliance Boundary
   .0108 Review Boundary
   .0109 Delegation
   .0110 Monitoring
   .0111 Reports
   .0112 Analytical Procedures
   .0113 Variance
   .0114 Notification Requirements
   .0115 Risk-Based Assessment and corrective action for Petroleum Underground Storage Tanks
2. Section .0200 Classifications and Groundwater Quality Standards
   .0201 Groundwater Classifications
   .0202 Groundwater Quality Standards
3. Section .0300 Assignment of Underground Water Classifications
   .0301 Classifications: General
   .0302 Statewide
   .0303 Broad River Basin
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.0304 Cape Fear River Basin
.0305 Catawba River Basin
.0306 Chowan River Basin
.0307 French Broad River Basin
.0308 Hiwassee River Basin
.0309 Little Tennessee River Basin
.0310 Savannah River Basin
.0311 Lumber River Basin
.0312 Neuse River Basin
.0313 New-Watauga River Basin
.0314 Pasquotank River Basin
.0315 Roanoke River Basin
.0316 Tar Pemisco River Basin
.0317 White Oak River Basin
.0318 Yadkin-Pee Dee River Basin


.0301 Performance standards for new UST systems
.0302 Upgrading of existing UST systems
.0303 Notification requirements

4. Section .0400 General Operating Requirements

.0401 Spill and overfill control
.0402 Operation and maintenance of corrosion protection
.0403 Compatibility
.0404 Repairs allowed
.0405 Reporting and recordkeeping

5. Section .0500 Release Detection

.0501 General requirements for all UST systems
.0502 Requirements for petroleum UST systems
.0503 Requirements for hazardous substance UST systems
.0504 Methods of release detection for tanks
.0505 Methods of release detection for piping
.0506 Release detection recordkeeping

6. Section .0600 Release Reporting, Investigation, and Confirmation

.0601 Reporting of suspected releases
.0602 Investigation due to off-site impacts
.0603 Release investigation and confirmation steps
.0604 Reporting and cleanup of spills and overfills

7. Section .0700 Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

.0701 General
.0702 Initial response
.0703 Initial abatement measures and site check
.0704 Initial site characterization
.0705 Free product removal
.0706 Investigations for soil and ground water cleanup
.0707 Corrective action plan
.0708 Public participation

8. Section .0800 Out-of-Service UST Systems and Closure

.0801 Temporary closure
.0802 Permanent closure and changes-in-service (Except insofar as it subjects USTs containing de minimis concentrations of regulated substances to closure requirements)
.0803 Assessing the site at closure or change-in-service
.0804 Applicability to previously closed UST systems
.0805 Closure records

North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2O: Financial Responsibility Requirements for Owners and Operators of Underground Storage Tanks

1. Section .0100 General Considerations

.0101 General (Except insofar as .0101(c) provides inspection and enforcement authority.)
.0102 Copies of referenced Federal regulations
.0103 Adoption by reference updates

2. Section .0200 Program Scope

.0201 Applicability
.0202 Compliance dates
.0203 Definitions (Except insofar as (b)(1) defines “annual operating fee”)
.0204 Amount and scope of required financial responsibility

3. Section .0300 Assurance Mechanisms

.0301 Allowable mechanisms and combinations of mechanisms
.0302 Self insurance
.0303 Guarantee
.0304 Insurance and risk retention group coverage
.0305 Surety bond
.0306 Letter of credit
.0307 Standby trust fund
.0308 Insurance pools
.0309 Substitution of financial assurance mechanisms
.0310 Cancellation or nonrenewal by a provider of assurance
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4. Section .0400 Responsibilities of Owners and Operators
   .0401 Reporting by owner or operator
   .0402 Record keeping (Except insofar as (b)(2) addresses annual operating fee requirements.)

5. Section .0500 Changes in Status
   .0501 Drawing on financial assurance mechanisms
   .0502 Release from the requirements
   .0503 Incapacity of owner or operator or provider of assurance
   .0504 Replenishment

North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2P: Leaking Petroleum Underground Storage Tank Cleanup Funds

1. Section .0100 General Considerations
   .0101 General (Except insofar as .0101(d) provides inspection and enforcement authority.)
   .0102 Copies of rules incorporated by reference
   .0103 False or misleading information

2. Section .0200 Program Scope
   .0201 Applicability (Except insofar as .0201(a) and (b) relate to annual operating fees.)
   .0202 Definitions (Except insofar as .0202(b)(1) relates to annual operating fees.)

3. Section .0300 Annual Operating Fees
   .0301 Annual Operating Fees

4. Section .0400 Reimbursement Procedure
   .0401 Eligibility of owner or operator (Except insofar as .0401(b) relates to annual operating fees.)
   .0402 Cleanup costs
   .0403 Third party claims
   .0404 Requests for reimbursement
   .0405 Method of reimbursement
   .0406 Reimbursement apportionment
   .0407 Final action

North Dakota

(a) The statutory provisions include: North Dakota Century Code (NDCC), Chapter 23-20.3, Hazardous Waste Management Act:
   - Section 23-20.3-01 Declaration of Purpose.
   - Section 23-20.3-02 Definitions.
   - Section 23-20.3-03 Powers and Duties of the Department.
   - Section 23-20.3-04 Hazardous Waste Regulations.
   - Section 23-20.3-04.1 Underground Storage Tank Regulations.
   - Section 23-20.3-05 Permits.
   - Section 23-20.3-05.1 Fees—Deposit in Operating Fund.
   - Section 23-20.3-05.2 Commercial Facility Permits and Ordinances.
   - Section 23-20.3-06 Imminent Hazard.

(b) The regulatory provisions include: North Dakota Administrative Code (NDAC), Chapter 33-24-08, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, Amended April 1992:
   - Section 33-24-08-01 Applicability.
   - Section 33-24-08-02 Interim Prohibition for Deferred Underground Storage Tank Systems.
   - Section 33-24-08-03 Definitions (Technical Standards and Corrective Action).
   - Section 33-24-08-10 Performance Standards for New Underground Storage Tank Systems.
   - Section 33-24-08-11 Upgrading of Existing Underground Storage Tank Systems.
   - Section 33-24-08-12 Notification Requirements.
   - Section 33-24-08-20 Spill and Overfill Control.
   - Section 33-24-08-21 Operation and Maintenance of Corrosion Protection.
   - Section 33-24-08-22 Compatibility.
   - Section 33-24-08-23 Repairs Allowed.
   - Section 33-24-08-24 Reporting and Recordkeeping.
   - Section 33-24-08-30 General Release Detection Requirements for All Underground Storage Tank Systems.
   - Section 33-24-08-31 Release Detection Requirements for Petroleum Underground Storage Tank Systems.
   - Section 33-24-08-32 Release Detection Requirements for Hazardous Substance Underground Storage Tank Systems.
   - Section 33-24-08-33 Methods of Release Detection for Tanks.
   - Section 33-24-08-34 Methods of Release Detection for Piping.
   - Section 33-24-08-35 Release Detection Recordkeeping.
   - Section 33-24-08-40 Reporting of Suspected Releases.
   - Section 33-24-08-41 Investigation Due to Offsite Impacts.
   - Section 33-24-08-42 Release Investigation and Confirmation Steps.
   - Section 33-24-08-43 Reporting and Cleanup of Spills and Overfills.
   - Section 33-24-08-51 Initial Response.
   - Section 33-24-08-52 Initial Abatement Measures and Site Check.
   - Section 33-24-08-53 Initial Site Characterization.
   - Section 33-24-08-54 Free Product Removal.
   - Section 33-24-08-55 Investigations for Soil and Ground Water Cleanup.
   - Section 33-24-08-60 Temporary Closure.
   - Section 33-24-08-61 Permanent Closure and Changes in Service.
   - Section 33-24-08-62 Assessing the Site at Closure or Change in Service.
Section 33–24–08–63 Applicability to Previously Closed Underground Storage Tank Systems.
Section 33–24–08–64 Closure Records.
Section 33–24–08–60 Applicability (financial responsibility).
Section 33–24–08–62 Definitions (financial responsibility).
Section 33–24–08–64 Allowable Mechanisms and Combinations of Mechanisms.
Section 33–24–08–65 Financial Test of Self-insurance.
Section 33–24–08–66 Guarantee.
Section 33–24–08–68 Surety Bond.
Section 33–24–08–69 Letter of Credit.
Section 33–24–08–70 Trust Fund.
Section 33–24–08–71 Standby Trust Fund.
Section 33–24–08–72 Substitution of Financial Assurance mechanisms by Owner or Operator.
Section 33–24–08–74 Reporting by Owner or Operator.
Section 33–24–08–75 Recordkeeping.
Section 33–24–08–76 Release from Requirement.
Section 33–24–08–77 Reimbursement of Guarantees, Letters of Credit, or Surety Bonds.

Oklahoma

(a) The statutory provisions include

1. Oklahoma Statutes, Chapter 14: Oklahoma Underground Storage Tank Regulation Act
   Section 301 Short Title
   Section 303 Definitions
   Section 304 Exemptions
   Section 305 Corporation Commission Designated as State Agency to Administer Certain Federal Programs
   Section 307 Corporation Commission—Promulgation of Rules Governing Underground Storage Tank Systems
   Section 308 Permits—Necessity—Application—Issuance—Fees—Denial, Refusal to Issue, Suspension or Revocation—Financial Responsibility Coverage (Except (B), which applies to individuals other than UST owners and operators.)
   Section 308.1 Underground Storage Tank Systems for Petroleum Products—Permit Fee—Penalty—Suspension or Non-renewal of Permit
   Section 309 Release from Underground Storage Tank System—Reports—Correction Action—Powers, Duties and Procedures of Corporation Commission
   Section 313 Records, Reports and Information—Public Inspection—Confidentiality—Disclosure to Federal or State Representatives
   Section 315 Corporation Commission Underground Storage Tank Regulation Revolving Fund
   Section 316 Ordinance or Regulations in Conflict with Act Prohibited
   Section 340 Storage Tank Advisory Council—Members—Quorum—Authority—Rules—Expenses

2. Oklahoma Statutes, Chapter 15: Oklahoma Petroleum Storage Tank Release Indemnity Program
   Section 350 Short Title—Maintenance, Operation and Administration
   Section 352 Definitions
   Section 353 Petroleum Storage Tank Release Environmental Cleanup Indemnity Fund
   Section 354 Assessments on Motor Fuels, Diesel Fuel and Blending Materials—Exemptions—Deposits in Funds
   Section 356 Collection, Remittance and Reporting of Assessments
   Section 356.1 Confidentiality of Records, Reports or Information—Schedule of Reimbursable Fees
   Section 357 Payment of Claim Subject to Indemnity Fund Acquiring Subrogation Rights—Administrator to Protect Indemnity Fund in Judicial and Administrative Proceedings—Notice of Lawsuit—Enforcement of Third Party Claim
   Section 358 Annual Reports
   Section 359 Audit Relating to Petroleum Storage Tank Release Environmental Cleanup Indemnity Fund
   Section 360 Limitation on Expenditures for Administrative Costs—Reports
   Section 361 Appointment of Administrator—Hiring of Employees—Temporary Workers and Contract Labor
   Section 365 Oklahoma Leaking Underground Storage Tank Trust Fund—Oklahoma Leaking Underground Storage Tank Revolving Fund—Appropriation, Budgeting and Expenditure of Monies—Payments from Funds—Costs of Actions—Emergencies—Reimbursement of Funds—Administrative Penalties
   (b) The regulatory provisions include

   1. Oklahoma Annotated Code, Chapter 25: Underground Storage Tanks
         Part 1: Purpose and Statutory Authority
         Part 3: Definitions
         Part 5: Scope of Rules
         Part 7: National Industry Codes
         Part 9: Notification and Reporting Requirements (Except 165:25–1–45, insofar as it requires owners of exempt USTs to notify the Commission of the existence of such systems.)
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b. Subchapter 3: Release Prevention, Detection, and Correction
Part 1: Release Prohibition, Reporting and Investigation
Part 3: Recordkeeping
Part 5: Spill and Overfill Prevention Requirements
Part 7: Compatibility
Part 9: Installation of Underground Storage Tank Systems (Except 165:25–3–48, which applies to individuals other than UST owners and operators.)
Part 11: Repairs to Underground Storage Tank Systems
Part 13: Removal and Closure of Underground Storage Tank Systems
Part 15: Corrective Action Requirements
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c. Subchapter 5: Requirements for Existing Underground Storage Tank Systems
d. Subchapter 7: Requirements for New Underground Storage Tank Systems
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Part 3: General Release Detection Methods and Service
Part 5: Release Detection Methods and Devices for Petroleum Underground Storage Tank Systems
e. Subchapter 9: Inspections, Testing, and Monitoring
Part 3: Fees
g. Subchapter 13: Financial Responsibility Requirements
Part 1: Applicability
Part 3: Definitions
Part 5: Amount and Scope of Coverage
Part 7: Financial Assurance
Part 9: Financial Test of Self-Insurance
Part 11: Guarantee
Part 13: Insurance and Risk Retention Group Coverage
Part 15: Surety Bond
Part 17: Letter of Credit
Part 19: State Fund or Other State Assurance
Part 21: Trust Fund
Part 23: Standby Trust Fund
Part 27: Cancellation or Nonrenewal
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Part 33: Drawing on Financial Assurance Mechanisms
Part 35: Release from Subchapter 11 Requirements
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Part 39: Replenishment of Guarantees, Letters of Credit, or Surety Bonds
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2. Oklahoma Annotated Code, Chapter 27: Indemnity Fund
Section 165:27–1–1 Purpose
Section 165:27–1–2 Definitions
Section 165:27–1–3 Scope
Section 165:27–1–4 Authority
Section 165:27–1–5 Citation of Rules
b. Subchapter 3: Eligibility Requirements
Section 165:27–3–1 General Requirements
Section 165:27–3–2 Eligible Person
Section 165:27–3–3 Eligible Release
c. Subchapter 5: Qualifications for Reimbursement
Section 165:27–5–1 Qualifications for Reimbursement
Section 165:27–5–2 Application for Reimbursement
Section 165:27–5–3 Application for Supplemental Reimbursement
d. Subchapter 7: Reimbursement
Section 165:27–7–1 Reimbursable Expenses
Section 165:27–7–2 Total Reimbursement
Section 165:27–7–5 Methods for Reimbursement
Section 165:27–7–6 Conditions for Reimbursement
Section 165:27–7–7 Exclusions from Reimbursement
Section 165:27–7–8 Withholding Reimbursement

Oregon
(a) The statutory provisions include:
465.200 Definitions for ORS 465.200 to 465.545 (except for Sections 465.200(5) through (11) and (17) defining terms contained in the dry cleaning requirements; (18) “facility” insofar as it applies to a
facility that is not an underground storage tank; (16) “hazardous substance” insofar as it applies to hazardous wastes and any substance that is not otherwise defined as a hazardous substance pursuant to section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act or that is not oil; (29) “underground storage tank” insofar as it includes any tank or piping that is excluded under ORS 466.710 and also any tank used to store heating oil for consumptive use on the premises where stored.

466.255 Strict liability for remedial action costs for injury or destruction of natural resource: limited exclusions (except insofar as this includes a person who is not an owner or operator of an underground storage tank and except insofar as the exclusions would exclude persons who would be liable under Section 9003(h)(6) of RCRA).

(2) Chapter 466, Hazardous Waste and Hazardous Materials II (Oil Storage Tanks):
466.706 Definitions for ORS 466.706 to 466.882 and 466.994 (except for the following definitions: Section 466.706(17) “regulated substance” insofar as it would include substances designated by the commission under subsection (c) that are not included under subsections (a) and (b) of this definition; (21) “underground storage tank” insofar as it includes any tank or piping that is excluded under ORS 466.710, and any tank used to store heating oil for consumptive use on the premises where stored.)
466.710 Application of ORS 466.706 to 466.882 and 466.994
466.740 Noncomplying installation prohibited
466.743 Training on operation, maintenance and testing; rules
466.750 Duty of owner or permittee of underground storage tank
466.770 Corrective action required on contaminated site
466.815 Financial responsibility of owner or permittee; rules; legislative review
466.825 Strict liability of owner or permittee

(b) The regulatory provisions include:
(1) Oregon Administrative Rules, Chapter 340, Division 122 insofar as the following rules apply to a release from an underground storage tank, excluding tanks used to store heating oil for consumptive use on the premises where stored.
340-122-0010 Purpose
340-122-0030 Scope and Applicability
340-122-0040 Activities
340-122-0047 Generic remedies
340-122-0050 Remedies
340-122-0070 Removal
340-122-0071 Site Evaluation
340-122-0072 Preliminary Assessments
340-122-0073 Confirmation of Release
340-122-0080 Remedial Investigation
340-122-0084 Risk Assessment
340-122-0085 Feasibility Study
340-122-0090 Selection or Approval of the Remedial Action
340-122-0100 Public Notice and Participation
340-122-0110 Administrative Record
340-122-0115 Definitions insofar as the definition applies to an underground storage tank, excluding tanks used to store heating oil for consumptive use on the premises where stored.
340-122-0120 Security Interest Exemption
340-122-0205 Purpose
340-122-0210 Definitions except insofar as the definition of “responsible person” includes a person who does not own or operate an underground storage tank
340-122-0215 Scope and Applicability
340-122-0217 Requirements and Remediation Options
340-122-0218 Sampling and Analysis
340-122-0220 Initial Response
340-122-0225 Initial Abatement Measures and Site Check
340-122-0230 Initial Site Characterization
340-122-0235 Free Product Removal
340-122-0240 Investigation for Magnitude and Extent of Contamination
340-122-0243 Low-Impact Sites
340-122-0244 Risk-Based Concentrations
340-122-0250 Corrective Action Plan
340-122-0252 Generic Remedies
340-122-0255 Public Participation
340-122-0320 Soil Matrix Cleanup Options
340-122-0325 Evaluation of Matrix Cleanup Level
340-122-0330 Evaluation Parameters
340-122-0335 Numeric Soil Cleanup Standards
340-122-0340 Sample Number and Location
340-122-0345 Sample Collection Methods
340-122-0355 Evaluation of Analytical Results
340-122-0360 Reporting Requirements

(2) Oregon Administrative Rules, Chapter 340, Division 142 insofar as the following rules apply to a release from an underground storage tank, excluding tanks used to store heating oil for consumptive use on the premises where stored.
340-142-0001 Purpose and Scope
340-142-0005 Definitions as Used in This Division Unless Otherwise Specified
340-142-0030 Emergency Action
340-142-0040 Required Reporting
340-142-0050 Reportable Quantities
340-142-0060 Cleanup Standards
340-142-0070 Approval Required for Use of Chemicals
340-142-0080 Disposal of Recovered Spill Materials
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340–142–0090 Cleanup Report
340–142–0100 Sampling/Testing Procedures
340–142–0130 Incident Management and Emergency Operations

(See Oregon Administrative Rules, Chapter 340, Division 150.

340–150–0001 Purpose
340–150–0006 Applicability and General Requirements
340–150–0008 Exemptions and Deferrals
340–150–0020 UST General Permit Registration Certificate Required except insofar as this provision applies to a person who does not own or operate an underground storage tank and except insofar as the payment of fees is required
340–150–0021 Termination of Temporary Permits
340–150–0052 Modification of Registration Certificates for Changes in Ownership and Permittee except insofar as the payment of fees is required
340–150–0080 Denial, Suspension or Revocation of General Permit Registration Certificates except insofar as this provision applies to a person who does not own or operate an underground storage tank
340–150–0080 Termination of Registration Certificates
340–150–0080 UST General Permit Registration, Annual Compliance and Other Fees except insofar as the payment of fees is required
340–150–0135 General Requirements for Owners and Permittees
340–150–0135 General Requirements for Owners and Permittees
340–150–0140 Requirements for Sellers of USTs
340–150–0156 Performance of UST Services by Owners or Permittees
340–150–0166 General Permit Requirements for Installing an UST System except insofar as this provision applies to a person who does not own or operate an underground storage tank
340–150–0166 General Permit Requirements for Operating an UST System except insofar as this provision applies to a person who does not own or operate an underground storage tank
340–150–0168 General Permit Requirements for Decommissioning an UST System by Permanent Closure except insofar as this provision applies to a person who does not own or operate an underground storage tank and except insofar as the payment of fees is required
340–150–0180 Site Assessment Requirements for Permanent Closure or Change-in-Service

340–150–0200 Training Requirements for UST System Operators and Emergency Response Information
340–150–0210 Training Requirements for UST Operators
340–150–0300 Installation of USTs and Piping
340–150–0302 Installation of Used USTs
340–150–0310 Spill and Overfill Prevention Equipment and Requirements
340–150–0320 Corrosion Protection Performance Standards for USTs and Piping
340–150–0325 Operation and Maintenance of Corrosion Protection
340–150–0330 UST System Repairs
340–150–0332 UST System Modifications and Additions
340–150–0354 UST System Replacements
340–150–0390 Requirements for Internally Lined USTs
340–150–0410 General Release Detection Requirements for Petroleum UST Systems
340–150–0420 Release Detection Requirements for Hazardous Substance UST Systems
340–150–0430 Inventory Control Method of Release Detection
340–150–0435 Statistical Inventory Reconciliation Method of Release Detection
340–150–0455 Vapor Monitoring Release Detection Method
340–150–0470 Other Methods of Release Detection
340–150–0500 Reporting Suspected Releases
340–150–0510 Suspected Release Investigation and Confirmation Steps
340–150–0520 Investigation Due to Off Site Impacts
340–150–0540 Applicability to Previously Closed UST Systems
340–150–0565 Compliance Dates for USTs and Piping
340–150–0560 Upgrading Requirements for Existing UST Systems

APPENDIX A Installation of USTs and Piping
APPENDIX B Installation of USTs and Piping
APPENDIX C Spill and Overfill Prevention Equipment and Requirements
APPENDIX D USTs Corrosion Protection Performance Standards for USTs and Piping

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APPENDIX D2 Piping Corrosion Protection Performance Standards for USTs and Piping
APPENDIX E1 USTs Corrosion Protection Performance Standards for USTs and Piping
APPENDIX E2 Piping Corrosion Protection Performance Standards for USTs and Piping
APPENDIX F Corrosion Protection Performance Standards for USTs and Piping
APPENDIX G Operation and Maintenance of Corrosion Protection
APPENDIX H UST System Repairs & UST System Modifications and Additions
APPENDIX I General Release Detection Requirements for All UST Systems
APPENDIX J General Guidance Documents for UST Owners and Permittees
APPENDIX K Site Assessment Requirements for Permanent Closure or Change-in-Service
APPENDIX L Training Elements
APPENDIX M UST System Modifications and Additions
APPENDIX N UST System Repairs & UST System Modifications and Additions
APPENDIX O Performance Standards for USTs and Piping
APPENDIX P Piping Corrosion Protection Performance Standards for USTs and Piping
APPENDIX Q UST System Repairs & UST System Modifications and Additions
APPENDIX R UST System Repairs & UST System Modifications and Additions
APPENDIX S UST System Repairs & UST System Modifications and Additions
APPENDIX T UST System Repairs & UST System Modifications and Additions
APPENDIX U UST System Repairs & UST System Modifications and Additions
APPENDIX V UST System Repairs & UST System Modifications and Additions
APPENDIX W UST System Repairs & UST System Modifications and Additions
APPENDIX X UST System Repairs & UST System Modifications and Additions
APPENDIX Y UST System Repairs & UST System Modifications and Additions
APPENDIX Z UST System Repairs & UST System Modifications and Additions
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Section 245.1 Definitions (except insofar as the section addresses aboveground storage tanks; encompasses a broader range of regulated substances; and includes individuals that are not regulated under the federal program under its definition of "responsible party")

Section 245.2 General

Section 245.31 Underground storage tank tightness testing requirements (except insofar as paragraph (a) requires Department certification for underground tightness testing installers)

Section 245.301 Purpose

Section 245.302 Scope

Section 245.304 Investigation of suspected releases

Section 245.305 Reporting releases (except insofar as paragraph (b) addresses aboveground storage tanks)

Section 245.306 Interim remedial actions (except insofar as subparagraph (b)(3) requires permits for treatment and disposal activities; and paragraph (d) regulates parties removing contaminated materials)

Section 245.307 Affected or diminished water supplies

Section 245.308 Onsite storage of contaminated soil

Section 245.309 Site characterization

Section 245.310 Site characterization report

Section 245.311 Remedial action plan

Section 245.312 Remedial action

Section 245.313 Remedial action completion report

Section 245.314 Professional seals

Section 245.401 Purpose

Section 245.402 Scope

Section 245.403 Applicability

Section 245.404 Variances

Section 245.405 Codes and standards

Section 245.421 Performance standards for new underground storage tank systems

Section 245.422 Upgrading of existing underground storage tank systems

Section 245.423 Registration requirements

Section 245.425 Reuse of removed tanks (except insofar as subparagraph (1) requires installation by a certified installer)

Section 245.431 Spill and overfill control

Section 245.432 Operation and maintenance including corrosion protection

Section 245.433 Compatibility

Section 245.434 Repairs allowed (except insofar as subparagraph (1) requires repairs to be performed by a certified installer)

Section 245.435 Reporting and record-keeping

Section 245.441 General requirements for underground storage tank systems (except insofar as it addresses aboveground storage tanks)

Section 245.444 Requirements for petroleum underground storage tank systems

Section 245.445 Methods for hazardous substance underground storage tank systems

Section 245.446 Methods of release detection for tanks

Section 245.447 Methods of release detection for piping

Section 245.448 Release detection record-keeping

Section 245.451 Temporary closure

Section 245.452 Permanent closure and changes-in-service

Section 245.453 Assessing the site at closure or change-in-service

Section 245.454 Applicability to previously closed underground storage tank systems

Section 245.455 Closure records

Section 245.701 Purpose

Section 245.702 Scope

Section 245.703 Owner or operator financial responsibility

Section 245.704 General requirements

Section 245.705 Owner and operator liability

Section 245.706 Underground storage tanks not covered by USTIF

Section 245.707 Coverage amounts for financial responsibility

Section 245.708 Failure to maintain financial responsibility

(a) The statutory provisions include:

1. Public Policy Environmental Act of 1970, Act Number 9, June 16, 1970, as amended, 12...
Laws of Puerto Rico Annotated (L.P.R.A.) §1121 et seq.

(1) Section 1121—Short title
(2) Section 1122—Purpose
(3) Section 1123—Declaration of policy
(4) Section 1124—Interpretation of legal provisions
(5) Section 1125—Duties of governmental agencies
(6) Section 1126—Savings clause
(7) Section 1127—Complementary character
(8) Section 1128—Annual report of Governor
(9) Section 1129—Creation of Board; composition; term
(10) Section 1130—Duties of Chairman
(11) Section 1130A—Consulting Council
(12) Section 1131—Functions and duties
(Except paragraphs (10), (12), (19), (22), (23), (25), (26), (29), and (30), insofar as they outline enforcement authorities; paragraph (13), insofar as it addresses enforcement authorities, permit and licensing requirements and associated fees, as well as the NPDES and UIC programs; and paragraph (34), insofar as it relates solely to the solid and hazardous waste programs.)
(13) Section 1133—Consultation and use of facilities
(14) Section 1135—Character of Board for federal purposes
(Except insofar as it addresses permit requirements.)
(15) Section 1135A—Administration of the Puerto Rico Water Pollution Control Revolving Fund
(16) Section 1137—Confidential documents
(17) Section 1138—Effectiveness of previous documents
(Except insofar as it addresses permit and licensing requirements.)
(18) Section 1140—Limitations
(19) Section 1141—Definitions
(20) Section 1142—Powers
(21) The regulatory provisions include:
   a. Part I—Program Scope and Interim Prohibition
      (1) Rule 101—Program Scope
      (2) Rule 102—Purpose
      (3) Rule 103—Applicability
      (4) Rule 104—Interim Prohibition for Deferred UST Systems
   b. Part II—UST Systems: Design, Construction, Installation, and Notification
      (1) Rule 201—Performance Standards for New UST Systems
      (2) Rule 202—Upgrading of Existing UST Systems
      (3) Rule 203—Notification Requirements
      c. Part III—General Operating Requirements
         (1) Rule 301—Spill and Overfill Control
         (2) Rule 302—Operation and Maintenance of Corrosion Protection
         (3) Rule 303—Compatibility
         (4) Rule 304—Repairs Allowed
         (5) Rule 305—Reporting and Recordkeeping
      d. Part IV—Release Detection
         (1) Rule 401—General Requirements for all UST Systems
         (2) Rule 402—Requirements for Petroleum UST Systems
         (3) Rule 403—Requirements for Hazardous Substance UST Systems
         (4) Rule 404—Methods of Release Detection for Tanks
         (5) Rule 405—Methods of Release Detection for Piping
         (6) Rule 406—Release Detection Recordkeeping
      e. Part V—Release Reporting and Investigation
         (1) Rule 501—Reporting of Suspected Releases
         (2) Rule 502—Investigation Due to Off-site Impacts
         (3) Rule 503—Release Investigation and Confirmation Steps
         (4) Rule 504—Reporting and Cleanup of Spills and Overfills
         (1) Rule 601—General
         (2) Rule 602—Initial Response
         (3) Rule 603—Initial Abatement Measures and Site Check
            [Except insofar as 603(A)(5) requires owners and operators to obtain permits or franchises for drilling and installation of groundwater monitoring and/or extraction wells.]
         (4) Rule 604—Initial Site Characterization
         (5) Rule 605—Free Product Removal
            (Except insofar as 605(A) and 605(D)(6) require owners and operators to obtain permits or franchises for drilling and installation of groundwater monitoring and/or extraction wells.]
         (6) Rule 606—Investigation for Soil and Groundwater Clean-up
         (7) Rule 607—Corrective Action Plan
         (8) Rule 608—Public Participation
      g. Part VII—Out-Of-Service UST Systems and Closure
         (1) Rule 701—Temporary Closure
         (2) Rule 702—Permanent Closure and Change-in-Service
         (3) Rule 703—Assessing the Site at Closure or Change-in-Service
         (4) Rule 704—Applicability to Previously Closed UST Systems

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(6) Rule 705—Closure Methods

h. Part VIII—Notification Requirements and Procedures.
(1) Rule 801—Notification of Underground Storage System
(2) Rule 802—Notification Requirements
(3) Rule 803—Notification Responsibility
(4) Rule 804—UST Notification Identification Number
(5) Rule 805—Changes to Facility Notification Data

(1) Rule 901—Applicability
(2) Rule 902—Compliance Dates
(3) Rule 903—Definition of Terms
(4) Rule 904—UST Notification Identification Number
(5) Rule 905—Allowable Mechanisms and Combinations of Mechanisms
(6) Rule 906—Financial Test of Self-Insurance
(7) Rule 907—Guarantee
(8) Rule 908—Insurance and Risk Retention Group Coverage
(9) Rule 909—Surety Bond
(10) Rule 910—Letter of Credit
(11) Rule 911—Trust Fund
(12) Rule 912—Standby Trust Fund
(13) Rule 913—Substitution of Financial Assurance Mechanisms by Owner or Operator
(14) Rule 914—Cancellation or Nonrenewal by a Provider of Financial Assurance
(15) Rule 915—Reporting by Owner or Operator
(16) Rule 916—Recordkeeping
(17) Rule 917—Drawing on Financial Assurance Mechanisms
(18) Rule 918—Release from the Requirements
(19) Rule 919—Bankruptcy or Other Incapacity of Owner or Operator of Provider of Financial Assurance
(20) Rule 920—Replenishment of Guarantees, Letters of Credit, or Surety Bonds
(21) Rule 921—Suspension of Enforcement

(1) Rule 1001—Amendments to this Regulation
(2) Rule 1002—Monitoring, Recordkeeping, Reporting, Sampling, and Testing Methods
(3) Rule 1003—Malfunction or Noncompliance, Reporting
(4) Rule 1004—Confidentiality of Information
(5) Rule 1005—Public Notice and Public Hearings
(6) Rule 1006—Public Notice and Public Hearings
(7) Rule 1007—Public Nuisance
(8) Rule 1012—Derogation
(9) Rule 1013—Separability Clause
(10) Rule 1014—Effectiveness

k. Part XI—General Prohibitions.

(1) Rule 1101—Purpose, Scope and Applicability
(2) Rule 1102—General Prohibitions

Rhode Island

(a) The statutory provisions include Rhode Island Statute Title 46 of the General Laws of Rhode Island, 1956, as amended:
Chapter 12 Water Pollution
Chapter 12.1 Underground Storage Tanks
Chapter 12.3 The Environmental Injury Compensation Act
Chapter 12.5 Oil Pollution Control
Chapter 13.1 Groundwater Protection
Chapter 14 Contamination of Drinking Water

(b) The statutory provisions include Title 42 of the General Laws of Rhode Island, 1956, as amended.

Chapter 35 Administrative Procedures
(c) The statutory provisions include Title 38 of the General Laws of Rhode Island, 1956, as amended.

Chapter 2 Access to Public Records
(d) The statutory provisions include Title 37 of the General Laws of Rhode Island, 1956, as amended.

Chapter 18 Narragansett Indian and Management Corp.
(e) The statutory provisions include Title 23 of the General Laws of Rhode Island, 1956, as amended.

Chapter 19.1 Hazardous Waste Management
(f) The regulatory provisions include State of Rhode Island, Agency of Natural Resources, Underground Storage Tank Regulations, February 1, 1991:
Section 1.00 Purpose
Section 2.00 Authority
Section 3.00 Superseded Rules and Regulations
Section 4.00 Severability
Section 5.00 Applicability
Section 6.00 Administrative Findings
Section 7.00 Definitions
Section 8.00 Facility Registration and Notification
Section 9.00 Financial Responsibility
Section 10.00 Minimum Existing Facility Requirements
Section 11.00 New Facility and Replacement Tank Requirements
Section 12.00 Facility Modification
Section 13.00 Maintaining Records
Section 14.00 Leak and Spill Response
Section 15.00 Closure
Section 16.00 Leak Detection Methods and Precision Tester Licensing Requirements
Section 17.00 Signatories to Registration and Closure Applications
Section 18.00 Transfer of Certificates of Registration or Closure
Section 19.00 USTs/Holding Tanks Serving Floor Drains
Section 20.00 Variances
Section 21.00 Appeals
Section 22.00 Penalties
Appendix A
Appendix B
Appendix C

South Dakota

(a) The statutory provisions include South Dakota Statutes Annotated, Chapter 34A–2, Sections 98 and 99. Underground Storage Tanks:
Section 98 Underground storage tanks—Definitions.
Section 99 Underground storage tanks—Adoption of Rules—Violation.
(b) The regulatory provisions include State of South Dakota Administrative Rules, Chapter 74:03:28, Underground Storage Tanks, Department of Environment and Natural Resources, June 24, 1992:
Section 74:03:28:01 Definitions.
Section 74:03:28:02 Performance standards for new UST systems—General requirements.
Section 74:03:28:03 Upgrading of existing UST systems—General requirements and deadlines.
Section 74:03:28:04 Notification requirements for UST systems.
Section 74:03:28:05 Spill and overfill control.
Section 74:03:28:06 Operation and maintenance of cathodic protection.
Section 74:03:28:07 Compatibility.
Section 74:03:28:08 Repairs allowed—general requirements.
Section 74:03:28:09 Maintenance and availability of records.
Section 74:03:28:10 Release detection for all UST systems—general requirements and deadlines.
Section 74:03:28:11 Release detection requirements for petroleum UST systems.
Section 74:03:28:12 Release detection requirements for pressure piping.
Section 74:03:28:13 Recordkeeping.
Section 74:03:28:14 Release notification plan.
Section 74:03:28:15 Reported of suspected releases.
Section 74:03:28:16 Release investigation and confirmation.
Section 74:03:28:17 Off-site impacts and source investigation.
Section 74:03:28:18 General requirements for corrective action for releases from UST systems.
Section 74:03:28:19 Initial abatement requirements and procedures for releases from UST systems.
Section 74:03:28:20 Free product removal.
Section 74:03:28:21 Additional site investigation for releases from UST systems.
Section 74:03:28:22 Soil and groundwater cleanup for releases from UST systems.
Section 74:03:28:23 Reporting of releases from UST systems.

Tennessee

(a) The statutory provisions include:
1. Section 68–215–101 Short title
3. Section 68–215–103 Definitions
4. Section 68–215–105 Minimum requirements for tanks
5. Section 68–215–106 Notification as to tanks in use and tanks taken out of operations [Except § 68–215–106(a)(6) and except § 68–215–106(c)(2).]
7. Section 68–215–108 Proprietary information
8. Section 68–215–118 Compliance by governmental entities
10. Section 68–215–124 Exemptions
11. Section 68–215–126 Preemption of local regulation—Exception
12. Section 68–215–127 Exclusivity of provisions
(b) The regulatory provisions include:
1. Section .01 Program Scope and Minimum Requirements for Tanks
   Section .01(1) Applicability
   Section .01(2) Minimum requirements for tanks
   Section .01(3) Definitions
2. Section .02 UST Systems: Design, Construction, Installation and Notification
   Section .02(1) Performance standards for new UST systems
   Section .02(2) Ugrading of existing UST systems
   Section .02(3) Notification requirements
3. Section .03 General Operating Requirements
   Section .03(1) Spill and overfill control
   Section .03(2) Operation and maintenance of corrosion protection
   Section .03(3) Compatibility
   Section .03(4) Repairs allowed
   Section .03(5) Reporting and recordkeeping
4. Section .04 Release Detection
   Section .04(1) General requirements for release detection

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Section .04(2) Requirements for petroleum UST systems
Section .04(3) Methods of release detection for tanks
Section .04(4) Methods of release detection for piping
Section .04(5) Release detection record-keeping
Section .05 Release Reporting, Investigation and Confirmation
Section .05(1) Reporting of suspected releases
Section .05(2) Investigation due to off-site impacts
Section .05(3) Release investigation and confirmation steps
Section .05(4) Reporting and cleanup of spills and overfills
Section .06 Release Response and Corrective Action for UST Systems Containing Petroleum
Section .06(1) General
Section .06(2) Initial response
Section .06(3) Initial abatement measures and site check
Section .06(4) Initial site characterization
Section .06(5) Free products removal
Section .06(6) Investigations for soil and groundwater cleanup
Section .06(7) Corrective action plan
Section .06(8) Public participation
Section .07 Out-of-Service UST System and Closure
Section .07(1) Temporary closure
Section .07(2) Permanent closure and changes-in-service
Section .07(3) Assessing the site at closure or change-in-service
Section .07(4) Applicability to previously closed UST systems
Section .07(5) Closure records
Section .08 Financial Responsibility
Section .08(1) Applicability
Section .08(2) Compliance dates
Section .08(3) Definition of terms
Section .08(4) Amount and scope of required financial responsibility
Section .08(5) Allowable mechanisms and combinations of mechanisms
Section .08(6) Financial test of self-insurance
Section .08(7) Guarantee
Section .08(8) Insurance and risk retention group coverage
Section .08(9) Surety bond
Section .08(10) Letter of credit
Section .08(11) Petroleum underground storage tank fund
Section .08(12) Trust fund
Section .08(13) Standby trust fund
Section .08(14) Substitution of financial assurance mechanisms by owner or operator
Section .08(15) Cancellation or nonrenewal by a provider of financial assurance
Section .08(16) Reporting by owner or operator
Section .08(17) Recordkeeping
Section .08(18) Drawing on financial assurance mechanisms
Section .08(19) Release from requirements
Section .08(20) Bankruptcy or other incapacity of owner or operator or provider of financial assurance
Section .08(21) Replenishment of guarantees, letters of credit, or surety bonds

Texas

(a) The statutory provisions include

1. Texas Water Code, Title 2, Subtitle D, Chapter 26—State Water Administration
   a. Subchapter I: Underground and Aboveground Storage Tanks
      Section 26.341 Purpose (Except insofar as it applies to aboveground storage tanks.)
      Section 26.342 Definitions (Except insofar as (10) and (12) apply to aboveground storage tanks.)
      Section 26.343 Regulated Substances
      Section 26.344 Exemptions (Except insofar as (a), (d), and (f) apply to aboveground storage tanks.)
      Section 26.345 Administrative Provisions (Except insofar as (a) and (e) apply to aboveground storage tanks.)
      Section 26.346 Registration Requirements (Except insofar as (a) applies to aboveground storage tanks.)
      Section 26.347 Tank Standards
      Section 26.348 Leak Detection and Record Maintenance
      Section 26.349 Reporting of Releases and Corrective Action (Except insofar as (a) applies to aboveground storage tanks.)
      Section 26.350 Tank Closure Requirements
      Section 26.351 Corrective Action (Except insofar as it applies to aboveground storage tanks.)
      Section 26.3511 Corrective Action by the Commission (Except insofar as it applies to aboveground storage tanks.)
      Section 26.3512 Owner or Operator Responsibility; Limitations on Fund Payments for Corrective Action
      Section 26.3513 Liability and Costs: Multiple Owners and Operators
      Section 26.3514 Limits on Liability of Lender (Except insofar as it applies to aboveground storage tanks.)
      Section 26.3515 Limits on Liability of Corporate Fiduciary (Except insofar as it applies to aboveground storage tanks.)
      Section 26.352 Financial Responsibility
      Section 26.353 Recovery of Costs (Except insofar as it applies to aboveground storage tanks.)
      Section 26.357 Standards and Rules
      Section 26.3571 Eligible Owner or Operator
      Section 26.3572 Groundwater Protection Cleanup Program
      Section 26.3573 Petroleum Storage Tank Remediation Fund
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Section 26.35735 Claims Audit
Section 26.3574 Fee on Delivery of Certain Petroleum Products
Section 26.358 Storage Tank Fund; Fees (Except insofar as it applies to aboveground storage tanks.)
Section 26.359 Local Regulation or Ordinance
(b) The regulatory provisions include
1. 31 Texas Administrative Code, Chapter 334—Underground and Aboveground Storage Tanks
   Section 334.1 Purpose and Applicability (Except insofar as Section 334.1(a)(1), (c), and (d)(2) apply to aboveground storage tanks.)
   Section 334.2 Definitions
   Section 334.3 Statutory Exemptions (Except insofar as Section 334.3(b) applies to certain hydraulic lift tanks that are exempt under the federal program.)
   Section 334.4 Commission Exclusions (Except insofar as Section 334.4: (1) Does not exclude airport hydrant fuel distribution systems and UST systems with field-constructed tanks; excludes only sumps less than 110 gallons, as opposed to all tanks; and does not provide a release detection deferral for UST systems that store fuel solely for use by emergency power generators; (2) Subjects wastewater treatment tank systems that are deferred in the federal rules to the registration requirements, general operating requirements, and corrective action requirements to certain hydraulic lift tanks that are exempt under the federal program.)
   Section 334.5 General Prohibitions
   Section 334.6 Construction Notification
   Section 334.7 Registration
   Section 334.8 Certification
   Section 334.9 Seller's Disclosure
   Section 334.10 Reporting and Recordkeeping
   Section 334.12 Other General Provisions
2. Subchapter B: Underground Storage Tank Fees
   Section 334.21 Fee Assessment
   Section 334.22 Failure to Make Payment
   Section 334.23 Disposition of Fees, Interest and Penalties
3. Subchapter C: Technical Standards
   Section 334.41 Applicability
   Section 334.42 General Standards
   Section 334.43 Variances and Alternative Procedures
   Section 334.44 Implementation Schedules

Section 334.45 Technical Standards for New UST Systems
Section 334.46 Installation Standards for New UST Systems
Section 334.47 Technical Standards for Existing UST Systems
Section 334.48 General Operating and Management Requirements
Section 334.49 Corrosion Protection
Section 334.50 Release Detection
Section 334.51 Spill and Overfill Prevention and Control
Section 334.52 UST System Repairs and Relining
Section 334.53 Reuse of Used Tanks
Section 334.54 Temporary Removal from Service
Section 334.55 Permanent Removal from Service
4. Subchapter D: Release Reporting and Corrective Action
   Section 334.71 Applicability
   Section 334.72 Reporting of Suspected Releases
   Section 334.73 Investigation Due to Off-Site Impacts
   Section 334.74 Release Investigation and Confirmation Steps
   Section 334.75 Reporting and Cleanup of Surface Spills and Overfills
   Section 334.76 Initial Response to Releases
   Section 334.77 Initial Abatement Measures and Site Check
   Section 334.78 Initial Site Characterization
   Section 334.79 Free Product Removal
   Section 334.80 Investigation for Soil and Groundwater Cleanup
   Section 334.81 Corrective Action Plan
   Section 334.82 Public Participation
   Section 334.83 Emergency Orders
   Section 334.84 Corrective Action by the Commission
Section 334.85 Management of Wastes
5. Subchapter E: Financial Responsibility
   Section 334.91 Applicability
   Section 334.92 Compliance Dates
   Section 334.93 Amount and Scope of Required Financial Responsibility
   Section 334.94 Allowable Mechanisms and Combinations of Mechanisms
   Section 334.95 Financial Test of Self-Insurance
   Section 334.96 Guarantee
   Section 334.97 Insurance and Risk Retention Group Coverage
   Section 334.98 Surety Bond
   Section 334.99 Letter of Credit
   Section 334.100 Trust Fund
   Section 334.101 Standby Trust Fund
   Section 334.102 Substitution of Financial Assurance Mechanisms by Owner or Operator
   Section 334.103 Cancellation or Nonrenewal by a Provider of Financial Assurance
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Section 334.104 Reporting by Owner or Operator
Section 334.105 Financial Assurance Recordkeeping
Section 334.106 Drawing on Financial Assurance Mechanisms
Section 334.107 Release from the Requirements
Section 334.108 Bankruptcy or Other Incapacity of Owner or Operator of Provider of Financial Assurance
Section 334.109 Replenishment of Guarantees, Letters of Credit, or Surety Bonds

6. Subchapter H: Interim Reimbursement Program
Section 334.301 Applicability of this Subchapter
Section 334.302 General Conditions and Limitations Regarding Reimbursement—Interim Period
Section 334.303 Time to File Application—Interim Period
Section 334.304 Who May File Application—Interim Period
Section 334.305 Where and How Documents Must Be Filed—Interim Period
Section 334.306 Form and Contents of Application—Interim Period
Section 334.307 Technical Information Required—Interim Period
Section 334.308 Allowable Costs and Restrictions on Allowable Costs—Interim Period
Section 334.309 Reimbursable Costs—Interim Period
Section 334.310 Requirements for Eligibility—Interim Period
Section 334.311 Determining the Number of Occurrences—Interim Period
Section 334.312 Owner/Operator Contribution
Section 334.313 Review of Application by Executive Director—Interim Period
Section 334.314 Executive Director’s Fund Payment Report—Initial Period
Section 334.315 Protest of Fund Payment Report—Interim Period
Section 334.316 Formal Petition—Interim Period
Section 334.317 Hearing by the Commission—Interim Period
Section 334.318 Recovery of Costs—Interim Period
Section 334.319 Administrative Penalties and Other Actions—Interim Period
Section 334.320 Responsibilities of Owners and Operators—Interim Period
Section 334.321 Corrective Action by the Commission—Interim Period
Section 334.322 Subchapter H Definitions

7. Subchapter K: Petroleum Substance Waste
Section 334.481 Definitions
Section 334.482 General Prohibitions
Section 334.483 Disposal by Generator
Section 334.484 Registration Required for Petroleum-Substance Waste Storage or Treatment Facilities
Section 334.485 Authorization for Class C and Class D Facilities
Section 334.486 Exemptions
Section 334.487 Notification and Mobilization Requirements for Class B Facilities
Section 334.488 Effect on Existing Facilities
Section 334.489 Notice to Owners and Operators
Section 334.490 Public Notice
Section 334.491 Public Meetings for Class A Facilities
Section 334.492 Closure and Facility Expansion
Section 334.493 Location Standards for Class A Petroleum-Substance Waste Storage or Treatment Facilities
Section 334.494 Shipping Procedures Applicable to Generators of Petroleum-Substance Waste
Section 334.495 Recordkeeping and Reporting Procedures Applicable to Generators
Section 334.496 Shipping Requirements Applicable to Transporters of Petroleum-Substance Waste
Section 334.497 Shipping Requirements Applicable to Owners or Operators of Storage Treatment or Disposal Facilities
Section 334.498 Recordkeeping Requirements Applicable to Owners or Operators of Storage Treatment or Disposal Facilities
Section 334.499 Additional Reports
Section 334.500 Design and Operating Requirements of Stockpiles and Land Surface Treatment Units
Section 334.501 Reuse of Petroleum-Substance Waste
Section 334.502 Contaminant Assessment Program and Corrective Action
Section 334.503 Security
Section 334.504 Contingency Plan
Section 334.505 Emergency Procedures
Section 334.506 Closure Requirements Applicable to Class A and Class B Facilities
Section 334.507 General Requirements for Financial Assurance
Section 334.508 Mechanisms for Financial Assurance
Section 334.509 Liability Requirements for Class A and B Facilities
Section 334.510 Incapacity of Owners or Operators, Guarantors, or Financial Institutions

8. Subchapter L: Overpayment Prevention
Section 334.530 Purpose and Applicability of the Subchapter
Section 334.531 Responsibility of Recipients of Money from the PSTR Fund and Persons Paid by Recipients of Money from the PSTR Fund
Section 334.532 Payments
Section 334.533 Audits
Section 334.534 Notice of Overpayment
Section 334.535 Objections to the Notice of Overpayment and Formal Petition for Hearing
Section 334.536 Hearing by the Commission
Section 334.537 Failure to Return Overpayment or Cooperative with Audit or Investigation
Section 334.538 Administrative Penalties and Other Actions

Section 334.560 Reimbursable Cost Guidelines

Utah
(a) The statutory provisions include: Utah Code Unannotated (1994), Title 19, Chapter 6, Part 1, Solid and Hazardous Waste Act, and Chapter 6, Part 4, Underground Storage Tank Act:
   Section 19–6–109 Inspections authorized.
   Section 19–6–402 Definitions, except (3), (4), (8), (9), (11), (14), (15), (20), (23), and (26).
   Section 19–6–402.5 Retroactive effect.
   Section 19–6–403 Powers and duties of board, except (1)(a)(i) and (iv).
   Section 19–6–404 Powers and duties of executive secretary, except (2)(c), (2)(f), (2)(j), and (2)(m).
   Section 19–6–407 Underground storage tank registration—Change of ownership or operation—Civil penalty, except (2) and (3).
   Section 19–6–413 Tank tightness test—Actions required after testing.
   Section 19–6–420 Releases—Abatement actions—Corrective actions, except (1) through (3)(b), (4)(a), (5)(b) and (c), (6), and (9)(b).
(b) The regulatory provisions include:
   Section R311–200–1 Definitions, except (2), (5), (8), (10), (13), (20), (29), (42) through (49), (53), and (54).
   Section R311–202–1 Incorporation by Reference.
   Section R311–203–1 Definitions.
   Section R311–203–3 New Installations.
   Section R311–203–4 Notification.
   Section R311–204–1 Definitions
   Section R311–204–2 Underground Storage Tank Closure Plan.
   Section R311–204–3 Disposal.
   Section R311–204–4 Subsequent Closure Notice.
   Section R311–205–1 Definitions.
   Section R311–205–2 Site Assessment Protocol.
   Section R311–206–1 Definitions.
   Section R311–206–2 Requirements for Issuance of Certificates, except (b) and (c).
   Section R311–206–3 Application for Certificates.

Vermont
(a) The statutory provisions include Vermont Statutes Annotated, 1992, Chapter 59. Underground Liquid Storage Tanks:
   Section 1921 Purpose.
   Section 1922 Definitions.
   Section 1923 Notice of New or Existing Underground Storage Tank.
   Section 1924 Integrity Report.
   Section 1925 Notice in Land Records.
   Section 1926 Unused and Abandoned Tanks.
   Section 1927 Regulation of Category One Tanks.
   Section 1928 Regulation of Large Farm and Residential Motor Fuel Tanks.
   Section 1930 Implementation; Coordination.
   Section 1936 Licensure of Tank Inspectors.
   Section 1938 Underground Storage Tank Trust Fund.
   Section 1939 Risk Retention Pool.
   Section 1940 Underground Storage Tank Incentive Program.
   Section 1941 Petroleum Cleanup Fund.
   Section 1942 Petroleum Distributor Licensing Fee.
   Section 1943 Petroleum Tank Assessment.
   Section 1944 Underground Storage Tank Loan Assistance Program.
(b) The regulatory provisions include State of Vermont, Agency of Natural Resources, Underground Storage Tank Regulations, February 1, 1991:
   (1) Subchapter 1: General.
   Section 8–101 Purpose.
   Section 8–102 Applicability.
   Section 8–103 Severability.
   (2) Subchapter 2: Definitions.
   Section 8–201 Definitions.
   (3) Subchapter 3: Notification and Permits.
   Section 8–301 Notification, except for the following words in section 8–301(1), “Notification is also required for any tank used exclusively for on-premises heating that is greater than 1100 gallons in size.”
   Section 8–302 Permits.
   Section 8–303 Financial Responsibility Requirements.
   Section 8–304 Petroleum Tank Assessment.
   Section 8–305 Innovative Technology.
   (4) Subchapter 4: Minimum Standards for New and Replacements Tanks and Piping.
   Section 8–401 General Requirements.
   Section 8–402 Tanks—Design and Manufacturing Standards.
   Section 8–403 Tanks—Secondary Containment.
   Section 8–404 Tanks—Release Detection.
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Section 8–405 Piping—Design and Construction.
Section 8–406 Compatibility.
Section 8–407 Spill and Overfill Prevention Equipment.
Section 8–408 Installation.

(5) Subchapter 5: Minimum Operating Standards for Existing Tanks and Piping.
Section 8–501 General Requirements.
Section 8–502 Spill and Overfill Prevention.
Section 8–503 Corrosion Protection of Metallic Components.
Section 8–504 Release Detection.
Section 8–505 Compatibility.
Section 8–506 Repairs.

(6) Subchapter 6: Reporting, Investigation, Corrective Action and UST Closure.
Section 8–601 General Requirement, except for the following words, “Heating oil tanks greater than 1100 gallons capacity used exclusively for on-premise heating purposes are subject to the requirements for permanent closure in accordance with subsection 8–605(2).”
Section 8–602 Reporting.
Section 8–603 Release Investigation and Confirmation.
Section 8–604 Corrective Action.
Section 8–605 Closure of USTs.
Appendix A Groundwater Monitoring Requirements.
Appendix B Inventory Monitoring Procedures.
Appendix D Installation Requirements Applicable to New and Replacement UST Systems.

Virginia

(a) The statutory provisions include:

(1) Code of Virginia, Title 62.1, Chapter 3.1: State Water Control Law
Article 9: Storage Tanks
Section 62.1–44.34:8 Definitions, except “Aboveground storage tank” and “Regulated substance”
Section 62.1–44.34:9 Powers and duties of Board

Article 10: Petroleum Storage Tank Fund
Section 62.1–44.34:10 Definitions, except “Aboveground storage tank” and “Regulated substance”
Section 62.1–44.34:11 Virginia Petroleum Storage Tank Fund
Section 62.1–44.34:12 Financial responsibility

(b) The regulatory provisions include:

(1) Virginia Administrative Code, Title 9, Agency 25: State Water Control Board, Chapter 580: Underground Storage Tanks—Technical Standards and Corrective Action Requirements

Part I: Definitions, Applicability, and Interim Prohibition

9 VAC 25–580–10 Definitions, except “Underground storage tank” includes heating oil tanks of greater than 5,000 gallon capacity and “Regulated substance”
9 VAC 25–580–20 Applicability
9 VAC 25–580–30 Interim prohibition for deferred UST systems
9 VAC 25–580–40 Permitting and inspection requirements for all UST systems

Part II: UST Systems: Design, Construction, Installation, and Notification

9 VAC 25–580–50 Performance standards for new UST systems
9 VAC 25–580–60 Upgrading of existing UST systems
9 VAC 25–580–70 Notification requirements
9 VAC 25–580–80 Spill and overfill control
9 VAC 25–580–90 Operation and maintenance of corrosion protection
9 VAC 25–580–100 Compatibility
9 VAC 25–580–110 Repairs allowed

Part III: General Operating Requirements

9 VAC 25–580–120 Reporting and recordkeeping

Part IV: Release Detection

9 VAC 25–580–130 General requirements for all petroleum and hazardous substance UST systems, except heating oil tanks of greater than 5,000 gallon capacity
9 VAC 25–580–140 Requirements for petroleum UST systems
9 VAC 25–580–150 Requirements for hazardous substance UST systems
9 VAC 25–580–160 Methods of release detection for tanks
9 VAC 25–580–170 Methods of release detection for piping
9 VAC 25–580–180 Release detection recordkeeping

Part V: Release Reporting, Investigation, and Confirmation

9 VAC 25–580–190 Reporting of suspected releases
9 VAC 25–580–200 Investigation due to offsite impacts
9 VAC 25–580–210 Release investigation and confirmation steps
9 VAC 25–580–220 Reporting and cleanup of spills and overfills
Part VI: Release Response and Corrective Action for UST Systems Containing Petroleum for Hazardous Substances

9 VAC 25-580-230 General
9 VAC 25-580-240 Initial response
9 VAC 25-580-250 Initial abatement measures and site check
9 VAC 25-580-260 Site characterization
9 VAC 25-580-270 Free product removal
9 VAC 25-580-280 Corrective action plan
9 VAC 25-580-290 Public participation
9 VAC 25-580-310 Temporary closure

Part VII: Out-of-Service UST Systems and Closure

9 VAC 25-580-320 Permanent closure and changes-in-service
9 VAC 25-580-330 Assessing the site at closure or change-in-service
9 VAC 25-580-349 Applicability to previously closed UST systems
9 VAC 25-580-350 Closure records

Part VIII: Delegation

9 VAC 25-580-360 Delegation of authority
Appendix I: Virginia Underground Storage Tank Notification Forms
Appendix II: Statement for Shipping tickets and Invoices

(2) Virginia Administrative Code, Title 9, Agency 25: State Water Control Board, Chapter 590: Petroleum Underground Storage Tank Financial Responsibility Requirements

9 VAC 25-590-10 Definitions
9 VAC 25-590-20 Applicability
9 VAC 25-590-30 Compliance dates
9 VAC 25-590-40 Amount and scope of financial responsibility requirement
9 VAC 25-590-50 Allowable mechanisms and combinations of mechanisms
9 VAC 25-590-60 Financial test of self-insurance
9 VAC 25-590-70 Guarantee
9 VAC 25-590-80 Insurance and group self-insurance pool coverage
9 VAC 25-590-90 Surety bond
9 VAC 25-590-100 Letter of credit
9 VAC 25-590-110 Trust fund
9 VAC 25-590-120 Standby trust fund
9 VAC 25-590-130 Substitution of financial assurance mechanisms by owner and operator
9 VAC 25-590-140 Cancellation or non-renewal by a provider of financial assurance
9 VAC 25-590-150 Reporting by owner or operator
9 VAC 25-590-160 Recordkeeping
9 VAC 25-590-170 Drawing on financial assurance mechanism
9 VAC 25-590-180 Release from the requirements

West Virginia

(a) The statutory provisions include:

(1) Code of West Virginia, Article 17: Underground Storage Tanks
Section 22–17–1 Short title
Section 22–17–2 Declaration of policy and purpose
Section 22–17–3 Definitions
Section 22–17–4 Designation of division of environmental protection as the state underground storage tank program lead agency
Section 22–17–6 Promulgation of rules and standards by director, except § 22–17–6.(b)(12) and (b)(13)
Section 22–17–8 Notification requirements
Section 22–17–9 Registration requirements; undertaking activities without registration
Section 22–17–10 Financial responsibility
Section 22–17–11 Performance standards for new underground storage tanks
Section 22–17–12 Confidentiality, except § 22–17–12.(b)
Section 22–17–14 Corrective action for underground petroleum storage tanks
Section 22–17–22 Underground storage tank insurance fund

(b) The regulatory provisions include:
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(1) West Virginia Code of State Regulations, Title 33: Office of Waste Management Rule, Series 30: Underground Storage Tanks

Section 33–30–1 General
Section 33–30–2 Adoption of Federal Regulations

Section 33–30–4 Notification Requirements, except §33–30–4.2.b and 4.4.b

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EDITORIAL NOTE: For Federal Register citations affecting appendix A to part 282, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.